“Just the Facts Ma’am?” A Contextual Approach to the Legal Information Use Environment

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by
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Abstract

“Just the Facts Ma’am?”
A Contextual Approach to the Legal Information Use Environment
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The purpose of this study was to develop a conceptual framework for legal information behavior in the law clinic setting. A strong conceptual framework for legal information behavior can be used to improve legal information systems, instruction, and services. This study examined academic law school researchers from a Farmworker Legal Aid Clinic. Student teams were observed in the law clinic as they constructed legal theories and located legal materials. The conceptual framework for this study is Solomon's Discovering Information in Context, which allows for multiple perspectives in gaining a rich, “round” view of information behavior, and puts forth Activity Theory as a possible tool for exploring how people discover information. Activity Theory was used to examine the systems, users, and the context of information use in the law clinic.

Data collection involved naturalistic observations, “think-alouds,” post-observation interviews and examination of client file documents. Analyses involved situating the activities of the clinic historically, mapping the activities observed in the clinic within a “web of activities” using the Activity Theory matrix, looking for “breakdown situations,” and considering other information behavior theories and models which might “fit” the activities observed within the clinic. The findings showed the deeply collaborative nature of research in the law clinic, and how various sources of memory were used (individual, organizational, group, and artifacts such as books and databases).
Information behavior models, if seen in terms of memory, each contribute useful perspectives on information behavior. While many information behavior models rely on an individual view of memory and knowledge, it is argued that models which take into account social and collaborative aspects of memory and behavior are more robust and were more useful in accounting for the behaviors observed in the clinic. In the law clinic, information behavior was embedded in a context of collaboration which had an impact, either directly or indirectly, on almost every aspect of information seeking and use. Thinking of information behavior and memory tools “in the round” allows you to consider the people, their work, the systems they use, and the environment in which they use them as they engage in information behavior.
I. Introduction, Research Questions, and Literature Review

A. Introduction

The purpose of this study is to develop a conceptual framework for legal information behavior in the law clinic. A strong conceptual framework for legal information behavior can be used to improve design and evaluation methods for legal information systems and services. This study examines academic law school researchers as they interact with legal information systems, as well as the overall context of use of those systems. Specifically, breakdowns (situations where the system is not working for the user in some manner) at both the search process and the interface level were studied in the broader context of the current activities at the clinic and the historical context of law practice in order to determine patterns in legal information behavior. Historical analysis was used in addition to observation of breakdowns in order to get a sense of the “roundness” or the broad context, of the clinical legal information use environment.

This study is significant in that it can help to create a conceptual framework for legal information behavior which is based upon empirical observation. There are few studies of legal information behavior which involve empirical observation. Further, there have been few studies which focus specifically on the information use environment and the more tacit and collaborative aspects of information behavior in the broader context of information seeking and use.
A cultural-historical approach encourages synthesis of prior research. This answers a call from Dervin (2003), who noted that what is needed is more synthesis of older research. What is needed, Dervin says, is “a new kind of atlas with new kinds of maps.” A contextual approach which includes both Sense-Making and cultural historical aspects could help to alleviate (or at least not add to) the problem Dervin (2003) describes as:

…we can address the challenges being directed at human studies and user studies—the challenge to matter and the challenge to be more coherent. We cannot, however, do so with the approaches we are using now. We will keep producing more of the same and make the pile higher and wider, but no deeper.

Finally, this study can potentially be used by librarians and system designers to develop improved information systems and services. Wilson (1994, p. 28) notes that “The results of studies of information use could be used, of course, to aid either questioning by intermediaries, or the design of more effective interfaces for human/computer interaction.” Legal interface design in particular is an area of research important to the American Association of Law Libraries (AALL). An AALL report (American Association of Law Libraries, 2002, p. 7) states that “Legal information resources are in a state of transition from print to electronic format.” It goes on to state that:

Law libraries are active participants in the design and implementation of new models and standards, working with campus libraries and IT departments to develop campus-wide information portals and collaborating with legal publishers in the design of new products and the next generation of legal information systems. (American Association of Law Libraries, 2002, p. 39)

Information behavior research can be looked at historically, with its own growth patterns and trajectories. (Vakkari & Kuokkanen, 1997) The focus of information behavior

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1 For a general overview of issues facing law librarians at the turn of the 21st century, see (Balleste, Luna-Lamas, & Smith-Butler, 2006).
research has shifted over time from the system, to the user, to the context of use. (Jones, 2006; Wania, Atwood, & McCain, 2006) The approach used in this study is Paul Solomon’s Discovering Information in Context approach, which seeks “to introduce the idea of a socio-technical systems design science that is founded in part on understanding the discovery of information in context.” (Solomon, 2002, p. 229) The Discovering Information in Context approach is based upon Sense-Making (Dervin, Weick) and Chatman’s Small Worlds concept, and discusses barriers in information seeking as breakdown situations.

This study is also informed by Taylor’s (1991) concept of the Information Use Environment. These frameworks may be helpful for examining the information use environment in the setting of a law clinic. In this study, Activity Theory (Vygotsky, Leont’ev, Engeström), is used as an information discovery tool, to examine the behaviors of clinic participants as they move through time and space to solve their information problems. The information use environment of the law clinic is seen in this study as an activity system, where concepts of use and users revolve around people, how they find help and solutions to their problems, and the active discovery and design processes they engage in as they make sense of their world.


**B. Research questions**

1. What are the characteristics of the Information Use Environment of the Law Clinic?

2. What do breakdowns tell us about legal information system use?

3. Do existing models of information behavior accurately reflect information seeking and use in the setting of a law school clinic? If not, why not?

Although the word *context* is not present, the research questions represent three distinct contextual perspectives. In other words, the information use environment of the clinic is being examined from a broad historical point of view, a more narrow, situational point of view, and a still more narrow elemental or individual point of view. Together, the answers to these research questions should provide a rich, round, and holistic view of the context of information use in the clinic.

In this study, the information use environment is initially operationalized as Taylor’s (1991) descriptive framework of sets of people, settings, problems, and resolution of problems. His view is very group-oriented, and specifically excludes consideration of the individual user. In other words, Taylor’s perspective on people is more oriented toward types or classes of people, e.g., lawyers or students. These people work in what Taylor (1991, p. 226) calls a “setting,” which he describes as the “physical context and with ways of describing the context in which a specific class of people usually works and live…” In considering the setting, Taylor takes into account the characteristics of the
organization, the domain, ease of access to information, and history and experience within an organization. Within these settings, problems are encountered and resolved.

This study takes a more exploratory and interpretive approach to describe the information use environment of the clinic, with particular attention to identifying aspects of information behavior which are specific to the clinic, or which are not as apparent from what other models tell us (for example, focus on social, tacit behavior, dynamic, non-linear aspects of information behavior). For the purposes of this study, the concepts of use and users revolve around people, how they find help and solutions to their problems, and the active discovery and design processes they engage in as they make sense of their world.

Solomon’s Discovering Information in Context approach puts forth Activity Theory as a possible tool for examining various aspects of information behavior. In order to explore the possibilities of this approach, this study utilizes Activity Theory (Vygotsky, Engeström) as a methodological tool to examine the information use environment of the law clinic. This view of the information use environment includes how use of the artifact and the ultimate outcome interact dynamically with the subject’s information need or objective, as well as the nature of the task or problem. By situating in a web of activities one can see how a problem may dynamically change over time in a non-linear fashion.

Traditionally, information behavior studies have looked at need, task, system interaction, and barriers, or breakdowns as separate concepts. Even more contextual, holistic
approaches tend not to consider precisely how the various elements relate to one another. The approach of this study is to use Activity Theory and breakdowns within an Activity system as an information discovery tool to show how these concepts can be considered as an interrelated whole. In a sense, Activity Theory could itself be seen as an information behavior model. People, their work, the systems they use and their environment are viewed both historically and in terms of the immediate situation (a web of activities). How a contextual approach impacts our traditional notions of the concepts of information, information need, seeking, task, and problem solving, and use will be explored. Applying this framework should result in a description of the activities in the clinic, as well as a description of the clinic activities from a more historical perspective of the nature of how lawyers are taught to reason, research and communicate.

In exploring the research questions above we will find that legal information activity systems should be understood in terms of how they are situated in the historical context of how lawyers research, how they use legal arguments in legal documents, and how they practice law. We will see that breakdowns tell us about how various sources of memory are used in the clinic (individual, organizational, group, and artifacts such as books and databases). Finally we will explore how the various information behavior models, if seen in terms of memory, each contribute useful perspectives on the information behavior activities of the clinic. However, theories which included social, organizational, and individual aspects of memory best fit the activities of the participants in the Farmworker Clinic.
C. Literature Review

1. There has been relatively little research in the legal research domain which involves empirical observation.

Mersky and Dunn (2002) state that: “Legal research is the process of identifying and retrieving information necessary to support legal decision-making. In its broadest sense, legal research includes each step of a course of action that begins with an analysis of the facts of a problem and concludes with the application and communication of the results of the investigation.” (p. 1) There has been relatively little research in the legal research domain which involves empirical observation. Few of the studies are explicitly based upon theory. Results are hard to interpret and compare. Populations that have been studied include judges (Hainsworth, 1992), law students (Kerins, Madden, & Fulton, 2004; Makri, Blandford, & Cox, Forthcoming), and practicing attorneys (Cole & Kuhlthau, 2000). Theoretical approaches include mental models (Komlodi, 2002; Komlodi & Soergel, 2002; Sutton, 1991, 1994), Kuhlthau’s search process model (Cole & Kuhlthau, 2000; Kuhlthau & Tama, 2001), task complexity (Byström & Järvelin, 1995), communities of practice (Hara, 2001; Hara & Kling, 2002- applying Lave & Wenger, 1991 and Wenger, 1998), Contextual Inquiry (Makri, 2006), and Ellis’ search process model (Makri et al., Forthcoming).

Most commonly used methods are surveys (Cohen, 1969; Eisenschitz & Walsh, 1995; Hainsworth, 1992; Howland & Lewis, 1990; Scarlett, 1997; Vale, 1988) and interviews (Cole & Kuhlthau, 2000; Halvorson, 2000; Kerins et al., 2004; Makri, 2006; Marshall, Price, Golovchinsky, & Schilit, 2001; Wilkinson, 2001). Empirical observations have
been used in studies such as (Byström & Järvelin, 1995; Elliott & Kling, 1997; Hara, 2001; Hara & Kling, 2002; Makri, 2006; Marchionini, Dwiggins, Katz, & Lin, 1993; Marshall et al., 2001). Although not termed as an information behavior study, Activity Theory was used in empirical observations of judges in traffic courts (Engeström, 1995, 1996).

Upon review, it is clear that there are several general characteristics of lawyers’ information behavior that have remained constant over time. One is the propensity to delegate the research process as soon as the attorney can reasonably do so (Cohen, 1969; Sutton, 1991; Vale, 1988). Another is a general distrust of technology and a tendency to accept change only slowly (Barnett & Siegel, 1988; Hainsworth, 1992). Ramsfield (2000, p. 47) describes law culture as “generally nervous and distrustful.” Lawyers’ information seeking occurs in the backdrop of a tightly knit community of practice (Hara, 2001; Hara & Kling, 2002), and there is a heavy reliance on informal sources of information (Cole & Kuhlthau, 2000; Kuhlthau & Tama, 2001). Individual attorneys determine relevance by using mental models to create an “event space” within which to compare case attributes (Sutton, 1991, 1994). Even recently, there are lawyers (Kuhlthau & Tama, 2001) who feel that online systems do not support the way they work, and therefore prefer print to online research. Differences between the legal research skills of novice and expert attorneys have been seen in terms of experts having more developed mental models (Sutton, 1991, 1994), more of a focus on learning rather than finding information (Marchionini, Dwiggins, Katz & Lin, 1993), a greater degree of socialization (Vale, 1988) and more focus on value-added services (Cole & Kuhlthau, 2000).
While the treatment of legal information use in the literature is relatively small, there are some studies of note. Some of the oldest data regarding lawyers’ use of information are reported in Cohen (1969). He discusses two surveys: 1) a survey of how and why 500 lawyers used the Philadelphia Bar Association library in 1965, and 2) a study of the research habits of 100 lawyers which was conducted by the Missouri Bar in 1966. Cohen succinctly captures the tasks of most lawyers. He states that:

> Lawyers need the cases, the statutes, and the regulations which govern a particular problem or area related to a particular factual situation….The forms by which such topical access has been achieved (digest for cases, codes for statutes, etc.), shape the lawyer’s research in very fundamental ways. (1969, p. 185)

Cohen notes a tendency to delegate the legal research task and a reliance on informal sources of information, such as other attorneys. Cohen (1969, p. 190) states, “In an interview study of 100 lawyers conducted by the Missouri Bar in 1966…Many felt the best answers to an out-of-state problem could be found by asking a lawyer from that state.” He noted that many attorneys tended to avoid the library altogether:

> When confronted with a new problem, these people do one of the following 1) refer to their files and notes from previous cases that might be similar 2) seek the advice of other attorneys, and 3) refer the case to another attorney or 4) if a member of a large firm, assign the research task to a younger member of the firm. (p. 191)

Cohen also noted that practice specialty (such as international law) and length of time in the profession were drivers of how much time lawyers actually spent doing legal research. He added that:

> Although there are many deviations from the rule, usually the less an attorney considers himself a specialist, the greater the number of hours devoted to legal research. The longer a person is in
practice, the fewer the hours he devotes to legal research. In fact, 80%...said they devoted less time to legal research now than they did earlier in their career; the uniform explanation they offered for this was that they were more experienced lawyers now and more familiar with the law....The number of files an attorney handles each week appears to have little relationship to the amount of time devoted to legal research. (p. 191)

Even in 1969, Cohen wrote about “the grievous condition of the art of legal research.” He looks to computers to help, but “even they are unlikely to be the whole solution.” There has been nationwide debate since the late 1980's about the inability of law school graduates to adequately perform legal research skills (see, for example, Woxland, 1989), and the appropriate methodology for teaching legal research and legal writing. In a survey of law firm librarians, Howland and Lewis (1990) found that recent law school graduates were perceived to be ineffective in researching legal research issues and in using Lexis and Westlaw, the major legal database vendors. Howland & Lewis (1990) stated that:

Despite all the time and energy invested in the methodology of teaching legal research, stories proliferate throughout the legal community about young associates who cite cases overruled decades previously, or who think that the Federal Reporter 2d includes only federal cases from the Second Circuit, or who assume that if information cannot be retrieved on LEXIS/ WESTLAW, then it is unobtainable. Questions about whether law school research programs are effective and whether law school graduates begin their careers with the basic skills necessary to research legal issues... (Howland & Lewis, 1990, p. 381).

Their observations are still relevant today.

Vale (1988) studied information seeking behavior of lawyers from the perspective of communication research. He surveyed over 700 practicing Canadian attorneys in an
attempt to develop quantitatively (1988, p. iv) “a model of information seeking in legal research...which identifies relevant cost, task-related organizational, environmental and individual factors.” He was particularly interested in what drove the decision to use print or online resources for legal research. Vale found that (p. v):

The systematic variation in media use can be represented by three functions. The first function, characterized as one’s information need, is most closely related to one’s task requirements and the need to do legal research...The second function represents one’s autonomy, and is characterized by the degree of control one has in organizing one’s work and information environment...The third function represents one’s cost sensitivity and is most closely associated with the relative cost of using the media...

Factor and regression analysis supported some hypotheses in his “theoretical model” but not others. One of the task-related variables he mentions is information use. He noted that legal information behavior can be basically divided between those who seek information for someone else and those who use it. Vale (1988, p. 22) hypothesized that “in cases where the result of the information-seeking process is “output” to be passed on to others for use in their work as opposed to using information as an input into one’s own decision-making, the individual is likely to spend a greater percentage of work time seeking information. However, he states, (p. 65) that particular factor was not statistically significant.

Echoing Cohen (1969), Vale found that attitudes towards searching are dependent upon the “degree of socialization” in the profession, stating that: “…the length of time in the profession are negatively related to the amount of information seeking.” Vale noted (1988, p. 27) that:
...the longer one practices law, the more one is able to learn ‘short cuts’ to laborious legal research. Second, because law is cumulative, we would expect lawyers with many years of practice to have less need to do extensive research, because of their accumulated knowledge. Finally, and perhaps most important, the training and socialization processes in the profession encourage the delegation of research functions to less experienced junior associates.

Note however, that Vale’s research was done at a time when online legal information resources were just coming into popular use. According to the 2007 American Bar Association Technology Survey, there is now a very strong trend for online legal information use. (American Bar Association. Legal Technology Resource Center, 2007, p. 13-14). Many respondents reported doing their own research using online sources.

Semi-structured interviews in a 1995 study of attitudes of British lawyer's to legal information revealed that “for solicitors, 97% delegate some of their case research and only 3% do all their own research, while for barristers 28% delegate some research, and 72% do all their own research.” (Eisenchitz & Walsh, 1995) A 1997 survey of internet usage by lawyers from a variety of countries administered via email listservs stated that the most frequently used internet service was email and mailing lists. Respondents voiced concerns “that the quality and accuracy of the information available on the Internet was not of a high enough standard...Problems included inaccurate, out-of-date and unattributed information.” (Scarlett, 1997, p. 10)

Byström and Järvelin (1995) studied the effects of task complexity on information seeking. They studied Finnish public administration officials, in the city secretarial office

2 A barrister is someone who argues cases before a British court while a solicitor does more transactional work which does not require arguing before a court. Summarized From: Merriam-Webster's Dictionary of Law ©1996. http://dictionary.lp.findlaw.com
of Pori Finland, including at least one Finnish lawyer. Questionnaires and research diaries were used to collect qualitative data. They found that, as complexity increased, use of informal sources of information, such as people, increased. A “work chart” used in the data analysis notes an instance where an external expert was used by the Finnish attorney. The expert was perceived to be both reliable and fast. See also (Byström, 2000).

A preference for print by some lawyers was seen in the work of Kuhlthau and Tama (2001). Kuhlthau and Tama applied Kuhlthau’s information search process model to legal information behavior. Kuhlthau’s information search process model (Kuhlthau 1993b) describes information seeking as a process of construction where understanding increases in stages as uncertainty decreases. Kuhlthau and Tama note that (2001, p. 26) “To date, system design research seems insufficient for revealing the process of information use underlying the more complex tasks of information workers.” Structured interviews were conducted of eight practicing lawyers in New Jersey in small and medium firms of various practice specialties. The study found a heavy reliance on informal sources. Kuhlthau's work points out that many lawyers do not prefer to use legal databases of any kind. They are often overloaded and, “they preferred printed texts over computer databases primarily because computer databases required well-specified requests and did not offer an option for examining a wide range of information at one time.” (p.25)

Kuhlthau and Tama found that (2001, p. 32) “Legal reference sources were used to construct a theory and develop a strategy. All eight lawyers expressed a preference for print texts over computer databases for more complex tasks. Although there was the
expectation that computer sources would or should make their work easier, and they considered themselves old fashioned for their preference for using books, the print sources seemed to support their work of constructing a complex case.” Kuhlthau and Tama called for more personalization and customization in legal information sources, stating that:

the participants in this exploratory study indicated the need for ‘just for me’ information systems and services. ‘Just for me’ services and systems would be grounded in a clear understanding of an individual’s work, the different types of information needed and the range of access required to accomplish a variety of tasks. (2001, p.42),

Also of note is that while in her early longitudinal studies of students (on which her search process model is based) uncertainty was accompanied by affective feelings of discomfort and frustration, the lawyers studied tended to thrive in a more uncertain environment.

Leckie, Pettigrew, & Sylvain (1996) set forth a model of information seeking that is applicable to all professionals, including lawyers. Their model consisted of several factors which affect information seeking behavior: 1) work roles, 2) tasks, 3) characteristics of information needs 4) awareness, 5) sources, and 6) outcomes. Work roles and tasks generate information needs which then lead to awareness of information and searching of sources. Feedback from the outcome of the search then affect whether additional searching is attempted. See image below:
Leckie, Pettigrew, and Sylvain describe several aspects of the research tasks of lawyers:

- “All lawyers must deal with an expanding and often overwhelming information universe, including not only well-established primary and secondary legal sources, but also a wide variety of other sources and databases...”
- “In the worldview of lawyers, the ongoing activities related to information retrieval and use are commonly referred to as “legal research.”
- “The lawyer's need to conduct legal research is not just a haphazard occurrence. According to a well-established literature of legal practice, lawyers engage in certain major roles that result in distinct types of activities.”
- “These activities in turn shape the type of information needed, the way in which it is retrieved, and the ultimate use of that information.”

Kerins, Madden, and Fulton (2004) studied the information-seeking behavior of law students and engineering students in Ireland using the Leckie model. Semi-structured interviews and problem exercises were used to examine the law students’ information-seeking behaviors. They state that “Participants were presented with three queries that they might be asked to complete in a given law course and were asked to explain how
they would locate such information using all of the information resources available to them.” (Kerins et al., 2004) The authors found that while “Most students claimed to use the resources of the library heavily over the course of their academic programmes…” many participants “tended to have problems in identifying suitable information sources for case law, legislation and journal articles.”

Wilkinson (2001) noted that “the information-seeking behavior of lawyers has not been fully investigated empirically.” In open-ended interviews which lasted between 20 minutes and one hour, 180 Canadian lawyers were asked to discuss a problem they had recently encountered. Wilkinson (2001) reported that her findings did not support the Leckie et. al. (1996) model. She disagrees with Leckie's model of information behavior of professionals, questioning whether legal research is an information seeking process as the term is currently used. Wilkinson states that law is essentially an information profession, and that the lawyer takes on the role of an intermediary towards the client. She also notes that lawyers overwhelmingly preferred informal sources when engaging in legal problem solving. What Wilkinson seems to argue is that the Leckie model does not get to the heart of how lawyers actually use legal information. Wilkinson states that “lawyers are not engaged in information-seeking...they are engaged in information production.” (p. 272)

Marchionini, Dwiggins, Katz, and Lin (1993) looked at use of electronic legal resources via empirical observation. They studied the role of domain knowledge and search expertise in interaction with full-text legal CD-ROM databases. Data was collected from think aloud sessions, interviews, observation, logs of searches and documents selected
during the search process. They found that experts were able to make quick and
certain predictions about where the relevant information would be found and what
form the answer would take. In addition, they found that “domain experts have learning
as their goal, they were driven by content and answers rather than by the problem and its
statement.” Search novices, on the other hand, had finding as their goal. “They focused
on the structure of the database, and procedures and techniques for formulating and
refining queries…” Of particular importance is that they found that use of the database
had both ‘conceptual’ and ‘procedural’ components.

Elliott and Kling (1997) conducted a qualitative study into legal digital library use.
Interviews of legal professionals from within a county court of the California Superior
Courts revealed that while some attorneys were supportive of computer use, others
regarded technology with distrust (Elliott & Kling, 1997).

Hara (2001), and Hara and Kling (2002) studied the workings of public defender offices
in terms of communities of practice (Wenger, Lave & Wenger). They found that more
developed IT infrastructure did not correlate with the most developed communities of
practice. (Hara & Kling, 2002) The community was studied via a combination of
interviews, observations, and documents. They found high uses of listservs and
information technology (IT) by some attorneys, especially by younger ones, who used
listservs as a platform for sharing experience and knowledge. Some attorneys saw the
value of listservs as a learning space while others, worried that listservs and email would
discourage younger attorneys from learning to do research on their own. (Hara & Kling,
2002) Tacit knowledge, griping, and jokes are all observed as part of the community of
practice. They noted that the best way to learn tacit, practical knowledge is to observe other, more experienced attorneys in practice. They note the importance of both formal and informal learning in the community of practice. Informal sources of information, such as listservs, were used extensively in the larger office.

Hara and Kling also argued that “the listserv provides part of the subject-matter knowledge that is explicit, but fails to provide much cultural knowledge. Hence, the online Cop [community of practice, ed.] among public defenders accommodates some aspects of face-to-face Cop's, but not all of them.” Hara and Kling define “communities of practice,” (based upon Lave & Wenger, 1991; Wenger, 1998) as “informal networks that support a group of practitioners in developing a shared meaning and engaging in knowledge building among the members.” They found that:

…the attorneys appear to use pubdef-L for many purposes: to ask questions; share updated information; brainstorm strategies in trials; discuss current legal issues; and learn from the discussions. We found that the characteristics of pubdef-L resemble the attributes of the communities of practice, and especially, this one appears to have been developed to share technical knowledge. However, there are some components that do not exist in this online community of practice. For example, it is difficult to confirm that these defense attorneys develop a shared vision because all members of the community were not necessarily public defenders. Some of the members are contract (part-time) public defenders who are private attorneys. (Hara & Kling, 2002)

They use their empirical observations to create a conceptual framework for IT support for communities of practice.

Cole and Kuhlthau (2000) saw a value added process (see MacMullin & Taylor, 1984) as a method for distinguishing between the thought processes of novice and expert lawyers. In their study of expert versus novice lawyers, Cole and Kuhlthau write:
The concept of value added, we believe, distinguishes a novice from an expert lawyer. In human terms, it is an attitude toward information and information seeking that helps the expert perform a task. In search terms, it is a mechanism or device that can aid the novice to perform a task or solve a problem by supplying the novice with an expert blueprint for the problem’s solution. (Cole & Kuhlthau, 2000, p. 103-104)

They also note that: “It is advantageous for a domain novice to mimic or be induced to think like a domain expert while solving a problem or performing a task.” (Cole & Kuhlthau, 2000, p. 106) Cole and Kuhlthau define the lawyer’s role as one of theory construction, and note the importance of information use. They state that: “A distinguishing feature of information and information seeking for expert lawyers is their overall view of the purpose to which the information be put down the road.” (Cole & Kuhlthau, 2000, p. 109)

Marshall, Price, Golovchinsky and Schilit (2001) observed student participants in an annual law school Moot Court competition in order to gain insight to inform the design of electronic books for legal users. They used open-ended and semi-structured interviews and “observed the students and faculty interacting with online resources, meeting to coordinate writing and research tasks, and attending classes. Observations took place where the participants normally worked.” (Marshall et al., 2001)

They found “four trends in students’ legal research: The continued importance and authority of books; research strategies that are link-based rather than search based; the advantage of electronic resources for case evaluation; and alternating use of print and electronic sources.” Students exhibited a tendency to “follow and evaluate explicit citations.” They note that “Full-text search is used to identify a key case at the outset if none is available, to check breadth and coverage if there is time, and to look for very
recent cases.” Students also tended to use a mix of print and online materials, and that “These materials may be maintained institutionally (such as treatises, law books, and journals available through the law library) or they may be part of a student's personal collection of books and files.”

In addition, although student highlighting was minimalist and rather cryptic students were able to, “articulate their own marking strategies.” They note that “These techniques give students a way of looking at legal decisions in terms of, for example, issues (what points of law are addressed), and holdings (what the decision's import is). Students sometimes use annotations to identify such aspects of a case, and will even revise them as they continue to read the materials. Such structured interpretation leads to a greater use of annotation tactics like color-coding than may be found in other disciplines.”

Marki (2006) studied information behavior to support the design of digital libraries and other electronic research tools. He argues that “developing better research skills goes hand-in-hand with developing an understanding of the electronic environments in which these skills must be practiced.” (Makri, 2006) Marki states that “This understanding will then be used to inform the design of user-centred support tools for digital law libraries (and potentially the design of the libraries themselves).” He used a Contextual Inquiry (Beyer & Holtzblatt, 1997) approach which included semi-structured interviews, naturalistic observations, and think-alouds of twenty academic law students in the UK. Makri found that students had problems using Lexis and Westlaw, often due to lack of awareness of features and databases. Students tended to form a strong preference for one
system or the other, and tended to use the systems that they were “most comfortable
with.”

Makri, Blanford, and Cox (2007) explored student attorney’s perceptions of Google.
Interviews revealed a wide use of Google among academic attorneys. “We find lawyers
use Google due to a variety of factors, many of which are related to the need to find
information quickly.” The authors discuss this preference for Google and how it should
inform the design of legal information systems. They argue that: “Although we can
design legal resources to be ‘more like Google’ ....we suggest this is unlikely to be useful
for supporting legal information-seeking.” (Makri, Blandford, & Cox, 2007)

This is partially because of a lack of focus on information use. Makri, Blanford, and Cox
(2007) state that search engines like Google “do not take the information being sought
(and therefore the information-seeking tasks that the electronic resource should be
designed to facilitate) into account.” Makri, Blanford, & Cox (2007) also note that the
“simplicity and approachability” of Google may impact negatively on other design
tradeoffs such as degree of control and speed/time-saving benefits.

(Makri et al., Forthcoming) use Ellis's model of information seeking behavior as a
“theoretical lens” to study information seeking of academic lawyers in the UK. They
argue that some models, such as Leckie’s (1996) model of professional information
seeking behavior, operate at a high level of abstraction. They state that theories that
operate at a lower level of abstraction, such as Ellis’s model, “may lead to broad design
insights for interactive systems, richer data and detailed design insights.”
The University of Pennsylvania Law Library surveyed the student body (1Ls, 2Ls, 3Ls, and LLM students) to find out how law students actually use technology. The survey found that law students made heavy use of social computing technology such as instant messaging and YouTube. (Biddle Law Library, 2007)

The Thomson West Corporation, makers of the Westlaw database, conducted qualitative research of law firm associations and conducted roundtable discussions with law firm and academic librarians. Thomson West states that:

According to ‘day in the life’ qualitative research conducted by West, a new associate at a law firm can expect to spend 80 percent of his time researching, drafting and writing documents. The split, 45 percent research and 35 percent writing, equates to a huge undertaking for new associates, who in law school gain the knowledge needed to pass the bar exam but typically don’t really learn to think, research and write like lawyers. (Thomson West, 2007a, 2007b)

Although not termed as an information behavior study, Yrjo Engeström (Engeström, 1995, 1996) examined the expertise of judges in a courtroom setting from a cultural and historical standpoint. He used the expanded Activity Theory model (Engeström, 1987) to focus on breakdowns and tensions within the judging process. In particular, his focus was on the collective nature of expertise as he analyzed judges in municipal courts in both California and Finland who handled DUI (Driving Under the Influence) cases. He focused on “the multiple dialects, disturbances, and tensions in the work of judges, interpreting those features as dynamic possibilities of learning, change, and development.” (Engeström, 1996, p.200) The data consisted of court documents, trial transcripts, videotaped court hearings, and audiotaped interviews of the judges. Engeström used Activity Theory to represent what he termed the “standard actions of
judges,” or, “…procedural steps that follow the legal script of a minimal, disturbance-free case.” (Engeström, 1996, p.217-220) Where disturbances, or breakdowns, did occur, they were often due to tensions between defendant requests for flexibility in the face of relatively inflexible court rules. (p.227) These disturbances were repaired by “collaborative action,” such as sidebar conferences between the various parties.

Barton, McKellar et al. (2007) provide an overview of Activity Theory as part of their discussion of the need for “authentic learning activities” for law students. They offer a case study of the simulation software SIMPLE (SIMulated Professional Learning Environment) used in the Scottish Diploma in Legal Practice at the Glasgow Graduate School of Law. While Activity theory has been discussed by the above authors in the law clinic literature, Activity Theory has not been used for empirical research in a U.S. law clinic setting.

Judith Lihosit, Coordinator and Speaker at the University of San Diego, School of Law/Legal Research Center, will speak at the 2008 American Association of Law Libraries Annual meeting on the topic that computer assisted legal research is no threat to librarians. Based on a study of practicing attorneys and law librarians, she will argue that “that legal practice is not a process conducted with a limited set of reference tools, but rather a craft where one learns to shape arguments through an apprentice system formed by informal networks and mentorships. Therefore, the shift from print to electronic materials can be seen as just another format change, similar to others that have occurred throughout American legal history, in which the underlying structure of the legal system
remained intact. Librarians, as vital links in these systems, will remain important.”
(Lihosit, 2008)

Recent theoretical work in the area of legal research has viewed legal information from an ecological viewpoint. Paul Callister (2005) depicts a “Legal Information Ecosphere” with a series of concentric circles. He uses this ecosphere as a “lens for historical analysis.” (p. 265) See graphic below:

![Figure 2 Callister (2005) Legal Information Ecosphere Model](image)

His “Legal Information Ecosphere” model is based upon “medium theory,” from authors such as Marshall McLuhan and Ronald Deibert's theory of ecological holism. Callister states that: “Deibert's theory of ecological holism does not simply view human development as a product of the environment, placing the material before the ideal; rather, it recognizes the symbiotic interactions of the two by focusing on what lies between them: culture, institutions, and media.” (Callister, 2005, p. 266)
Callister views his ecosystem as: “factors, or a heuristic framework, for consideration of various media environments and their relationship to law and legal institutions. The heuristic will not be used as the organizing principle to present information on various legal infospheres, but as a reference point that the reader may find useful when contrasting different legal information ecosystems...” (p. 267)

He views the history of legal information as a series of legal information ecospheres, each of which had differing technology, language, and geopolitical circumstances. Callister places the individual at the center of his ecosphere, with his “web-of-beliefs,” followed by a control circle (institutions and government), a “media, technology and language” circle (including memory techniques, verse and poetry, stone, papyrus, papyrus, parchment, print, electronic media, etc.), a geopolitical, physical and temporal environment and time (past and future). For each ring he presents a series of questions about the nature of that medium's relationship to the law. At the center of the chart, most central to the individual are what he calls “Memory Tools” - books, databases, stone tablets, etc. Callister notes that each generation of law-givers has highly valued their memory tools for recording and preservation of the law. However, as his model indicates, it is an individual view of researching and memory which is at the heart of the culture of legal research.
2. The focus of information behavior research in general has shifted over time from the system, to the user, to the context of use.

Library and information science “has as its primary concern the nature, organization, and uses of information in various contexts.” (Harris & Dewdney, 1994, p. 8) Fisher, Erdelez, and McKechnie (2005, p. xix) “conceptualize information behavior as including how people, need, seek, manage, give and use information in different contexts.” However, the traditional focus of use studies was on the information systems rather than the users of the information. Dervin & Nilan (1986) called for a paradigm shift to a more user-centered perspective. Vakkari (1997, p. 451) notes that there has been a shift from a person-centered approach in information behavior research to a person-in-context centered approach. Current information needs and uses research focuses on the effect of group characteristics, individual characteristics, and contexts of use (domain, task, etc.) on the information search process (Vakkari & Kuokkanen, 1997). Thus, over time, a shift in the focus of information research can be seen from the system, to the user, to the context of use (Savolainen, 1999). Hjorland and Albrchtsen (1995) state that, “there has been a transdisciplinary development where the view of human individuals, of human knowledge, etc. is seen as less formal, less mechanical, less computer-like, and more organic, contextual, sociocultural, and domain specific.” Savolainen (1999) notes that an increased focus on information use is accompanied by an increased focus on context. He states that “new theoretical and methodological approaches are called for to reveal the wide variety of contextual and processual characteristics of information use.”
A similar evolution from the system, to the user, to the context of use can be seen in the information systems/HCI research area. Wania, McCain, and Atwood (2006) use bibliometric analysis to show the importance of the context of use in information systems literature. This emphasis can be seen, for example in the work of Susanne Bødker, who uses Activity Theory as a framework for information system design and evaluation. Bødker (2007) notes the development of “first generation” and “second generation” HCI as she expands her focus to ubiquitous technology as opposed to focusing on any particular system. Bødker (2007) states that “Ubiquitous substitution is not a matter of breaking down and replacing one kind of mediation with another, but providing a larger “toolbox” and a better understanding of which mediator to apply when.”

a) Context is Ill-Defined

According to Harris and Dewdney (1994, p. 8), library and information science “has as its primary concern the nature, organization, and uses of information in various contexts.” However, that leaves open the question of: what is context? Context is a concept which has recently received much attention in both Human-Computer Interaction (HCI) research (See Dourish, 2004; Nardi, 1996) and information behavior research (see, for example, the proceedings of the information seeking in context (ISIC) conferences; Dervin, 1997; Höglund & Wilson, 2000; Thomas & Nyce, 2001; Vakkari, 1997; Wilson & Allen, 1999; Wilson & Barrulas, 2002). Jones and Spiro (1995) note that the end of the 20th century can be characterized by increasing contextualization in scientific inquiry. They argue that “Contextualization…has been the predominant theme in intellectual historiography for the last quarter of a century…there appears to be a convergence between cognitive psychology, interpretive theory, and advanced information
technologies.” Context has been studied from any number of theoretical perspectives, including phenomenology, situated cognition (Suchman, 1987), distributed cognition (Hutchins, 1995a), and Activity Theory (Nardi, 1996). Johnson (2003) writes that “While surprisingly little has been written about context at a meaningful level, context is central to most theoretical approaches to information seeking.” Although information behavior research has shifted to more context-centered approaches, the term context is often ill-defined. (Dervin, 1997, p. 14)

Some of the more meaningful discussion on the topic of context comes from Jean Lave and Brenda Dervin. Lave (1993, p. 17) notes that there are various philosophical perspectives to the concept of context. The phenomenological perspective sees context as situated activity. Activity Theory, on the other hand, takes a historical perspective. Lave states “the central theoretical relation is historically constituted between persons engaged in socioculturally constructed activity and the world in which they are engaged.” (Lave, 1993, p. 17) While situated theories look more at the immediate situation/context, Activity Theory looks at the entire historical/developmental environment in which the activity takes place. Traditionally, context is seen from a more rationalistic, structured perspective, as the container of an object, which gives shape and meaning to that object (Lave, 1993; Dervin, 1996). Lave (1993, p. 23) argues that more formal views of knowledge value decontextualized, abstract information. She notes that “to decontextualize knowledge is to formalize it (to contain it, to pour it into forms).” This valuation of knowledge assumes “that movement toward powerful (abstract, general)
knowledge is movement away from engagement in the world, so that distance “frees”
knowers from the particularities of time, place, and ongoing activity.”

Similarly, Dervin (1996, p. 14) characterizes the concept of context as being in
“paradigmatic isolation.” Perspectives of context are polarized on a continuum that
ranges from the “more positivist science” to “more qualitative, humanist science or
critical/cultural science.” More positivist approaches to context are more highly
structured, viewing context as arrays of variables. Dervin states, “Virtually every
possible attribute of person, culture, situation, behavior, organization, or structure has
been defined as context…Context is conceptualized, usually implicitly, as a container in
which the phenomenon resides.” At the other, more qualitative extreme, “context is the
carrier of meaning and research must be contextualized. Further, every context is by
definition different, an intersection of a host of nameless factors. Because of this,
research can only be particularized and generalization in the traditional scientific sense is
impossible.” In other words, in the more qualitative approaches the perspective on
context tends to be less structured. Dervin notes that one can view context from two
extremes, an extreme rationalist view, where context is a highly structured set of
variables, or an extreme qualitative view, where context is very unstructured to the extent
that it is difficult to separate the context from the what we wish to observe. Dervin
(p.17-28) places herself at the more qualitative end of the spectrum, stating that context
has an “immersive” character. She states that (1996, p.32) “Context is something you
swim in like a fish. You are in it. It is in you.” In other words, context has a
methodological dimension. We, the researchers, define the context. It is the “field” from
which we “filter” the phenomenon in order to perform an observation. The context
defines the boundary between the artifact and its use.

This “immersion” quality of context is also evident in the works of Christopher
Alexander (1964). He states (1964, p. 15) “…every design problem begins with an effort
to achieve fitness between two entities; the form in question and its context. The form is
the solution to the problem; the context defines the problem.” Alexander argues that the
form of a tool fits the context of its use. “Good fit” is a desired property of this ensemble
which relates to some particular division of the ensemble into form and context.” (p. 16)
He goes on to say that “…we may even speak of a culture itself as an ensemble in which
the various fashions and artifacts which develop are slowly fitted to the rest.” He posits
(much like Heidegger) that it is far easier to talk about a “bad fit” of a tool with its
purpose than a “good fit.” It is the breakdown in use that helps to separate the tool from
its surrounding field of everyday use and subject it to scientific examination.

Philosopher Martin Hollis notes that in social science research, one can look at social
phenomena in terms of individuals or groups, which in turn can be examined
atomistically or holistically. Four viewpoints of social behavior result: rational choices,
subjective meanings, systems, or cultures. (Hollis, 1996) Research has trended to
considering not only the rational, or individual point of view, but towards considering
how individuals interact with systems in a social or cultural context. Nardi (1996, p. 69)
states that “it is not possible to understand how people learn or work if the unit of study is
the unaided individual with no access to other people or to artifacts for accomplishing the
task at hand. We must study context to understand relations among individuals, artifacts, and social groups.”

Dourish (2004) writes about context from the perspective of ubiquitous computing. He writes that “Context, in one form or another, has been a concern in many areas of design and computer science, but it is of central importance here. One reason is straightforward; when computation is moved “off the desktop,” then we suddenly need to keep track of where it has gone. The situation in which technology is used has become more variable, so we need to understand more about it.” (Dourish, 2004, p. 19-20) Dourish notes that context is used by designers either as a form of representation or “retrieval cue” or “a second, more common approach is to use context dynamically to tailor the behavior of the system or its response to patterns of use.” He states that context should not be treated as a representational problem in a positivist sense. Rather, he argues that “what I want to do here is to reconsider context, not as a representational problem, but as an interactional problem.” (Dourish, 2004, p. 22) Dourish states that “context is a feature of interaction.” (p.25)

Dourish (2004, p. 23) suggests that “context and content (or activity) cannot be separated. Context cannot be a stable, external description of the setting in which activity arises. Instead, it arises from and is sustained by the activity itself.” He calls his approach “embodied interaction,” to which shared practice and meaning are central concepts.
Dourish states that “The essential feature of embodied interaction is the idea...of allowing users to negotiate and evolve systems of practice and meaning in the course of their interaction with information systems.” (Dourish, 2004, p. 28)

Talja et.al. (1999) also focus on shared meaning through their Discourse Analysis approach. They note the divide between more positivist and more interpretive views of context. They state that context is generally defined in the information needs and uses literature as the variables which affect information behavior. They describe two approaches to context: an “objectified” approach and an interpretive approach. The objectified approach is concerned with predicting patterns of behavior, while the interpretive approach deals with context as a carrier of meaning.

In the “objectified” notion of context, the goal of information behavior studies is to build a model of information behavior which shows how different factors or variables influence information seeking. (Talja et.al. 1999, p. 753) Once relevant factors have been identified, they can be used to predict how users will behave, the kinds of information they need, and how they can best be helped in certain situations. Generally, each researcher “routinely draws his or her own model of the variables affecting information seeking.” (p. 754)

In the interpretive approach, contextual entities “do not exist as such, just waiting to be identified and described by the researcher; rather, contextual entities are constituted in researchers’ social activity in the same way as the research object. Particular kinds of
conceptualizations make it possible for the researcher to approach information needs, seeking and use from a particular angle and limit other ways in which these phenomena could also be viewed.” (Talja, et.al. 1999, p. 754)

The structured versus unstructured view of context can be seen in the various models of information behavior. Wilson (1999) suggests a taxonomy of information seeking and information searching, with information behavior as the general container, within which information-seeking behavior and information search behavior are nested, respectively.

See figure below:

![Figure 3 From Wilson et.al. (1999) Nested Framework of Information Behavior Models](image)

In the innermost circle, information searching behavior research involves the interaction closest to the search interface. Information-seeking behavior deals with the search process, and the general information behavior category includes theories and models
which are all-inclusive or which deal with more general, social, cultural and contextual aspects of information behavior. The illustration can also loosely be seen as how the information behavior research lens has expanded over time from a focus on the system or interface level to include more social and contextual aspects.

Based on Wilson (1999), models in information science can be characterized as:

1) general information behavior models: (Dervin, 1983; Krikelas, 1983; Paisley, 1968; Taylor, 1968; Wilson, 1981, 1999). These include earlier approaches, some of which have evolved over time. This category also includes newer approaches which include more social and cultural aspects of information behavior (Chatman, 1996; Choo, Detlor, & Turnbull, 2000; Fisher & Naumer, 2006; Gross, 1995; Solomon, 2002; Sonnenwald, 1999; Spink & Cole, 2006).

2) information seeking/ search process models: These include more linear approaches (Ellis, 1989; Ellis, 1993; Kuhlthau, 1993b), nonlinear, or ecological approaches (Bates, 1989; Pirolli, 2003; Sandstrom, 1994), and collaborative approaches (Prekop, 2002); and

3) Models which explore interactional issues and information search behavior with respect to information systems (Belkin, 1980; Belkin, Oddy, & Brooks, 1982; Fidel et al., 2000; Ingwersen, 1992, 1996; Ingwersen & Järvelin, 2005; Saracevic, 1996; Spink, 1997). These models also have expanded over time to include more social and collaborative aspects. See image below:
The more contextual approaches which tend to include use or focus heavily upon use are the general behavior models at the outer edge of the Wilson taxonomy.

b) “Use” is Also Ill-Defined

What is meant by the term “use”? Although user studies are often called “information needs and uses” (see, for example, Dervin & Nilan, 1986) and the American Society for Information Science & Technology has a Special Interest Group on Information Needs,
Seeking and Use (SIG/USE), it is not exceedingly clear what types of “use” we study in “information needs and uses studies.” Savolainen (1999) states that the definition of the concept of information use is not clearly defined in the literature. Brittain (1970, p. 1) commented on the lack of specificity in the area. He noted that often it is “…not obvious whether study is one of demand, need or use.” He further stated that “…ambiguity resides in the term ‘use’… as most frequently found it refers to the study of the gathering stage of use rather than the use to which the information is put.” Paisley (1968, p. 2) saw not considering the use to which information will be put as a symptom of shallow conceptualization. Dervin and Nilan (1986, p. 10) state that, “Most of these studies imply that the “information behaviors” observed are indexing information needs and uses. Usually, the studies have left the terms ‘information needs’ and ‘information uses’ undefined, and it is implied that by knowing how users might or might use systems, one knows what their needs are or might be.”

At a more basic level, most views of use are either as a type of production or as a type of consumption. Shera (1972, p. 112) seemed to take an integrated perspective of information production and use when he stated:

The new discipline that is envisaged here (and which, for want of a better name, Margaret E. Eagan originated the phrase, social epistemology) should provide a framework for the investigation of the complex problem of the nature of the intellectual process in society – a study of the ways in which society as a whole achieves a perceptive relation to its total environment. It should lift the study of intellectual life from that of scrutiny of the individual to an inquiry into the means by which a society, nation, or culture achieves understanding of stimuli which act upon it. The focus of this new discipline should be upon the production, flow, integration, and consumption of communicated thought throughout the social fabric. From such a discipline should emerge a new body of
knowledge about, and a new synthesis of, the interaction between knowledge and social activity...

Savolainen (2000, p. 47) discusses Sense-Making as a metaphor for information use. He sees use as a process of construction, or production, based on the Sense-Making concept of building a bridge across a gap in knowledge. Savolainen also sees B.C. Brooke’s (1980a) fundamental equation of information science as a metaphor for information use. In other words, use is the “something” that changes a knowledge structure. However, Savolainen believes in Brooke’s metaphor, use is like placing “a small bit of knowledge” into a container. Savolainen states:

The ‘fundamental equation’ draws on natural scientific ideas of information as an entity-like and transferable things which may modify the knowledge structures. Information use is seen as the incorporation of ‘small parts’ to knowledge structure whereas Sense-Making theory emphasizes the role of the individual actors as creators of internal models and ‘designers’ of bridges across the informational gaps.

Savolainen (1999) notes an increasing focus on information use. He states that “In most studies conducted thus far, the concept of information use is left as a black box; however, a few attempts have been made to develop analytical frameworks in order to open it…” Information use is explicitly included in models such as Taylor’s Information Use Environment (Taylor, 1991), Dervin’s Sense-Making (Dervin, 1983, 1992, 1999a), and Choo’s integrated model of human behavior (Choo, Detlor, & Turnbull, 1998; Choo, Detlor, & Turnbull, 1999; Choo et al., 2000; Choo, Detlor, & Turnbull, 2000a, 2000b).

The rational/ interpretive continuum of viewing context is also useful when considering the various views of information use. The extreme rationalist, structured view of use is
reflected by the Information Use Environment model (Taylor, 1991). Taylor (1991, p. 220) struggled with the concept of “use.” He states “The term in the title phrase – use – requires mutual understanding and agreement. Generally – and somewhat cavalierly – we can say that use is whatever the particular population says it is. In a way, that is really what we mean: that is what the user-directed approach is all about. Another way of putting it might be to say that “use” is in fact situational in nature.”

Taylor (1991, p. 218) proposed a broad contextual view of information behavior phenomena which he called Information Use Environments (IUE), which “looks at the user and uses of information, and the contexts within which those users make choices about what information is useful to them at particular times. These choices are based, not only on subject matter, but on other elements of the context within which a user lives and works.” Taylor’s approach, although context oriented, is rooted in a more positivist approach that is very variable-driven. More specifically, he defines “…Information Use Environments (IUE) as the set of those elements that (a) affect the flow and use of information messages into, within, and out of any definable entity; and (b) determine the criteria by which the value of the information messages will be judged.” (Taylor, 1991, p. 218).

Taylor viewed his article as “a bridge between (a) users and their environments and (b) the world of the system designer, information manager, and those who really make the system work – from reference librarians to information analysts.” His IUE model was presented in the form of an outline which focused on four basic sets of factors: 1) Sets of
People, 2) Problems, 3) Settings, and 4) Resolutions of problems. He sees the IUE as a method of structuring data: Most important for this section is that Taylor details eight generic types of information uses to which information can be put: 1) enlightenment (making sense of a situation), 2) problem understanding (deciding, preparation, and planning ahead), 3) instrumental (skills oriented- more tacit types of knowledge), 4) factual, 5) confirmational (support, assurance), 6) projective (estimate of future affects), 7) motivational, and 8) personal or political. Many of his qualifications are couched in terms of Dervin’s Sense-Making terminology.

Taylor’s framework is geared more toward a work environment, and therefore is strongly group oriented. He states (Taylor, 1991, p. 219-220): “We are also dealing with groups rather than with individuals. This says that, though individuals have specific idiosyncrasies, there are real similarities among, for example, managers, whether they are in Seattle, Miami, or Boston. It is the argument of this chapter that each of these groups has different kinds of problems over varying time frames, different ways of resolving those problems, and consequently differing information seeking behaviors.”

Also, he limits his discussion to formal information (p. 220). Interestingly, one of the IUEs Taylor explored was law-related – that of federal legislators. He took a broad, cultural approach to describing the setting. In fact, he concedes that trying to describe the actual nature of the legislature defies exact terminology:

This does not mean that we cannot describe a legislature. It means rather that such descriptions will be fuzzy and messy, because legislatures are indeed messy institutions where the same information can be both
redundant and useful and where conventional objectivity may not be of particular value. (Taylor, 1991, p. 239)

Taylor broadly describes the culture of the legislature in a broad, general narrative:

“Congress is a verbal culture…Legislatures are almost invariably nonhierarchical…party is a major centralizing force. Time is one of the most valuable resources. The collegial character of the Congress, especially of the House, distinguishes it markedly from the executive branch of government, and one might say, from traditional bureaucracies everywhere…” Hjörland (1995) notes that Taylor (1991) has an affinity with more socially oriented theories of information behavior such as Hjörland’s Domain Analysis approach. However, although Taylor reaches for fluidity (his actual descriptions of the information use environment are very unstructured), he is still rooted in more rationalistic and structured approaches to information behavior.

Choo et. al. (2000, p. 22), present an integrated model of human information seeking. Their triple pyramid approach consists of three major areas 1) information needs 2) information seeking and 3) information use. Choo et. al. (2000, p.14) also note the difficulty of incorporating information use into information behavior models, stating,

Perhaps because it is so much an automatic part of every day experience, information use as a concept has been difficult to define satisfactorily. In a way, information need and information use are two sides of a coin, since the truest indication that information is needed is when it is used. Purposive information seeking focuses on the perceptions and behaviors that lead to information being found, including the identification, selection, and use of information sources. Information use occurs when the recipient possesses information by engaging mental schemas and emotional responses within a larger social and cultural context. The outcome of information use is a change in the individual’s state of knowledge (increase awareness, understand a situation), or capacity to act (solve a problem, make a decision, negotiate a position.)
Issues of use are an undercurrent in other areas of information science research. Both Wilson (1994) and Choo et. al. (2000) note that bibliometrics (See, e.g. White & McCain, 1998) is also a method of tracking information use. Wilson (1994, p. 27) notes that “The main strategy for determining what information has actually been used over the past fifty years has been citation analysis.” Choo et. al. (2000, p. 137) state that:

to develop a better understanding of information seeking in practice, the attributes of authorship, publications, and their influences on each other are worth examining. Bibliometrics, a quantitative method for the study of literatures, offers good insights. Originally derived for published information, bibliometrics is particularly applicable to studying how Web documents, Web sites, and Web users are all related through reference and use.

In an early example in law, Cohen (1969) mentioned a 1950 study which examined the most cited material by California supreme court cases as evidence of how legal authority was used by judges. Cohen sees it as a clue to the most used legal research sources. There are also several articles which track the most cited law review articles in order to determine the status of a particular publication.³ The Lexis Shepard’s Citations service and Westlaw’s Keycite service both provide the means to find related cases, statutes, law review articles, and other resources by way of citation tracking.

As with context, information use has different meanings depending upon one’s philosophical orientation to the study of science. They range from the more structured, rationalistic view as variables impacting how various information resources are used, to

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more unstructured, interpretive views of how actors construct knowledge from information and how that knowledge fits into the context of practice. Dervin (1989) notes that the concept of “user” has often been used as a “research invention.” She argued “that traditional categories which focus on such attributes as demographic, personality, and life-style characteristics involve applying a static framework to humans not well suited to understanding information/communication behaviors.” In other words, separating the user from their world might not produce the best results when studying or designing for people or groups of people. Wilson (1994, p. 27) notes that although difficult, there should be more studies on information use. He states that

It is, of course, time-consuming to follow up document use, since interviewing is absolutely necessary to secure the necessary information from a user…The results of information use could be used, of course, to aid either the questioning by intermediaries, or the design of more effective interfaces for human/computer interaction.

While the concept of Taylor’s Information Use Environment is used to inform this study, a more interpretive stance is taken with respect to describing the information use environment of the law school clinic. For the purposes of this study, the concepts of use and users revolve around people, how they find help and solutions to their problems, and the active discovery and design processes they engage in as they make sense of their world.

3. The approach used in this study is Discovering Information in Context

The approach used in this study is Discovering Information in Context (Solomon, 2002). Paul Solomon developed his information Seeking in Context approach out of several years of naturalistic observation of agency workers, college students, and professionals.
In Discovering Information Behavior in Sensemaking (Solomon, 1997a, 1997b, 1997c), he explored some of the contexts in which workers at a public agency sought information—the person, the social, and time and timing.

This more holistic view taken towards the information behavior of agency workers was expanded into his Discovering Information in Context Approach. Solomon (2002, p.229) states that the purpose of the Discovering Information In Context approach is “...to introduce the idea of a socio-technical systems design science that is founded in part on understanding the discovery of information in context.” He “focuses on both theoretical and research works in information studies and related fields that shed light on information as something that is embedded in the fabric of people's lives and work.” (p. 229)

Solomon's Discovering Information in Context approach invites us to view information and information-seeking from a dynamic, design-oriented perspective. In this perspective, with it's foundation in Sense-Making (Dervin) and Small Worlds (Chatman), collective as well as individual activity is important to how people design and discover information. This approach suggests Activity Theory as a possible discovery tool to with which to examine information behavior (other suggestions include Contextual Inquiry, Discourse Analysis, and Phenomenographical Analysis). Activity Theory is used in this study as an information behavior model and a methodological lens to examine both individual and collective aspects of the information behavior of law school clinic participants. Activity Theory encourages us to consider the cultural and historical aspects of activity and the role of community in the course of reaching objectives in addition to
mediating tools such as books and databases. In Activity Theory research (see Bødker, 1991, 1996) breakdowns help to make collective and tacit aspects of information behavior more visible. The Discovering Information in Context approach also helps us to consider multiple theories in the study of information behavior, and engage in a process of reflection which can itself result in the creation of new theories. Solomon (2002, p. 229) sees information in terms of a design process. He states that “...the discovery of information view presented here characterizes information as being constructed through involvement in life's activities, problems, tasks, and social and technological structures, as opposed to being independent and context free.”

The information seeking in context approach allows multiple perspectives in the study of information behavior. Its foundational models are Brenda Dervin’s Sense-Making and Elfreda Chatman's Small Worlds. Solomon (1999) states that: “the idea of information seeking in context offers encouragement to loosen the structures of terminology, research foci, methods, and assumptions about ideal behavior to discover what the role of information in people’s lives is.” (Solomon, 1999, p. 150) notes that the notion of context leads to a “joining” of both the user and the system viewpoint.

Solomon (2002, p. 229) states that, “Given this process view, discovering information entails engagement, reflection, learning, and action - all the behaviors that research subjects often speak of as making sense- above and beyond the traditional focus of the information studies field: seeking without consideration of connections across time.” This design viewpoint can then influence the development of future information systems. Solomon (2002) states that “The idea is that through such an understanding in context, a
foundation will be set for designing collections (content and contexts), organizational
schemes (representations and classifications), retrieval mechanisms, and displays that fit
the problems and tasks of life and work…” (p.230)

With his discovery approach, Solomon advances the view that multiple perspectives can
contribute to a richer understanding of information behavior. Solomon (1997a) writes
that:

> By beginning to understand the patterns of people’s information
> behaviors, we begin to map the variety, uncertainty, and complexity
> (Bates, 1986) that are inherent in the information field. We begin to
> understand how people make sense. We begin to comprehend how
> people's feelings, thoughts, and actions move forward and fall back
> (Kuhlthau, 1993). We accept the barriers and constraints that face people
> in their information worlds as well as the possibilities for building bridges
> over, tunnels under, and ways around (Chatman, 1996)... Thus, this
> mapping provides us with the basic materials that are necessary for
designing and improving information systems and services. The mapping
> also provides hope for an eventual theoretical and conceptual foundation
> for the information field. (p.1099)

In the Discovering information in Context approach, Sense-Making, affective feelings
and emotions, and barriers to information seeking can all be considered as part of the
information-seeking process.

4. The information seeking in context approach is based
upon Sense-Making and Chatman’s Small Worlds
concept.

a) Sense-Making

Dervin’s Sense-Making also focuses on information use. Dervin (1999b; 2003) describes
her Sense-Making approach as both metatheory and method. Dervin (1983) states that:

> In the most general sense, Sense-Making (that which is the focus of study
> in the Sense-Making approach) is defined as behavior, both internal (i.e.
cognitive) and external (i.e. procedural) which allows the individual to construct and design his/her movement through time-space. Sense-Making behavior, thus, is communicating behavior. Information seeking and use is central to Sense-Making (as it similarly is seen as central to all communicating) but what is meant by these terms is radically different than what is typically meant in the positivistic tradition.

Sense-Making could be seen as an “umbrella perspective” (see Savolainen, 2007) for information behavior in which other more specific behaviors are seen to take place. Kuhlthau (1993b, p. 361) has noted that her information search process model takes place within a Sense-Making perspective. While it is clear that Kuhlthau (1991) is speaking in terms of Dervin when she mentions the Sense-Making concept, it is sometimes unclear whether any given researcher is following Dervin's Sense-Making (see Dervin, 1999b, 2003) perspective, or some other.

In the fields of knowledge management and Human-Computer Interaction research, the concept of Sense-Making is most commonly cited from the works of Weick (1995), who writes on “sensemaking” in organizations. Shariq (1997), writing from a knowledge management perspective, argues that Activity Theory is embedded in a “sense making” process. However, he does not cite either Dervin or Weick. Rather, he cites Russell, Stefik, Pirolli, & Card (1993) as providing a more “operational definition” from the “cognitive context.” (Shariq, 1997, p. 11) In their paper, “The Cost Structure of Sensemaking,” they state that “Sensemaking is the process of searching for a representation and encoding data in that representation to answer task-specific questions.” (Russell, Stefik, Pirolli, & Card, 1993, p. 269)

Savolainen (1999) points out that:
Due to its elusive nature, similar to thinking processes, information use is difficult to capture into categories, not to speak about its reliable operationalization for empirical research. In the Sense-Making theory, the metaphor of gap-bridging offers one of the most helpful ways to understand the characteristics of information use. In the Sense-Making theory, gap-bridging stands for the constructive process where an individual draws on cognitive and affective resources in order to cross the gap being faced in a problematic situation. In the Sense-Making theory, the outcomes of the gap-bridging process are described as uses…

In general, Sense-Making consists of a situation, which causes a gap, or uncertainty, a bridge to help close the gap, and the outcome of the Sense-Making process. See image below:

![Diagram of Sense-Making](image)

**Figure 5 Sense-Making - Source: Models in Information Behavior Research (Wilson, 1999)**

Dervin (1983) states that:

The term ‘Sense-Making’ is a label for a coherent set of concepts and methods used…to study how people construct sense of their worlds and, in particular, how they construct information needs and uses for information in the process of Sense-Making. Since Sense-Making is central to all
communicating situations, (whether they be intra-personal, interpersonal, mass, cross-cultural, societal, or inter-national) the Sense-Making approach is seen as having wide applicability.

Dervin (1996) presents Sense-Making as resting in the middle of the spectrum between the extreme rationalist and the extreme qualitative views of context in information behavior approaches.

This view of information behavior is dynamic and non-linear in nature. Solomon (1997a, p. 1098) states that:

A study of information behavior in Sense-Making promotes the discovery of people’s strategies, expectations, attitudes, and anxieties as they live and work in their life worlds. It also suggests attention to the full range of possible information behavior beginning with working out just what is stopping progress, creating an information gap, or raising an anomaly. An important aspect of Sense-Making as a process is the struggle of people to understand a problem that drives them to seek meaning for in many situations and many circumstances they are content to take no such action. The information behavior associated with Sense-Making seldom followed the idealized order.

Sense-Making includes several different views of the gaps, or barriers to satisfying an information need (referred to as stops). Gaps, or breakdowns in the user’s knowledge, are at the heart of the model.

In the Sense-Making metaphor, the user encounters various barriers and gaps as they try to make sense of the information in their environment. Dervin in her 1983 overview of Sense-Making research details several types of “situation movement states” from various studies, some of which could be seen as barriers:

- **DECISION** - Being at a point where you need to choose between two or more roads that lie ahead.
- **PROBLEMATIC** - Being dragged down a road not of your own choosing.
• SPIN-OUT - Not having a road.
• WASH-OUT - Being on a road and suddenly having it disappear.
• BARRIER - Knowing where you want to go but someone or something is blocking the way.
• BEING LED - Following someone down a road because he/she knows more and can show you the way.
• WAITING - Spending time waiting for something in particular.
• PASSING TIME - Spending time without waiting for something in particular.
• OUT TO LUNCH - Tuning out.
• OBSERVING - Watching without being concerned with movement.
• MOVING - Seeing self as proceeding unblocked in any way and without need to observe.

Although he acknowledges Dervin's Sense-Making approach, in the discovering information behavior in sensemaking studies Solomon noted that his use of Sense-Making comes as much from the words of the participants as Dervin's usage:

As I proceeded through the analysis and writing associated with this study, I did, however, find subjects using the words: “makes sense” and “sense making”....It therefore seemed appropriate to use the term sense making as a label that captured how subjects described the WPP [work planning process, ed.] …Thus, the term sense making is drawn from the words of participants and not solely from, for instance Dervin (1992) or Weick (1995). (Solomon, 1997a p. 1098)

Solomon seems to include both Dervin's and Weick's views of “Sense Making” in his operationalization of the term. In his paper, “Discovering information Behavior in Sense Making I,” he argues that Weick's organizational view of sense making should be acknowledged, stating:

To the work of Kuhlthau and Chatman, which leads to new visions of people's sense making and associated information behavior, it is important to recognize a research example that displays social action through organizational life as sense making. Weick (1993) presents a fascinating retrospective analysis of the Mann Gulch (Montana) disaster of 1949, which resulted in the deaths of 13 forest fighters. In his analysis, he sought to understand why an organization unraveled during a time of extreme adversity. He identified two patterns of breakdowns that may have contributed to the disaster. The first he labeled 'shared provinces of
meaning,’ (p. 645), where communication and social construction of the unfolding events failed to occur. The second involved ‘structural frameworks of constraint’ (p. 645), where there was a breakdown in ‘roles, rules, procedures, configured activities, and authority relations.’ (Solomon, 1997a, p. 645)

Solomon notes that these two patterns must work together: “Meaning affects frameworks, which affect meaning.” (Solomon, 1997a, p. 645) This is an organizational or institutional vision to complement the individual, interactional, and process views of Kuhlthau and Chatman.

b) Small Worlds

Elfreda A. Chatman used ethnography and other qualitative methods to explore the information-seeking behavior of those she terms “outsiders.” Chatman was interested in “the factors that hinder persons from making use of relevant knowledge that is both known and accessible.” (Chatman, 1996, p. 96) Chatman often employed other theories in conjunction with her Small Worlds view, such as diffusion theory (Chatman, 1986), alienation theory (Chatman, 1990), opinion leadership theory (Chatman, 1987), gratification theory (Chatman, 1991b) and Social Network Theory (Huotari & Chatman, 2001). In Chatman’s Small World view, information avoidance could occur as often as information-seeking.

Chatman put forth sets of propositions in her various works about the nature of information behavior as a conceptual framework with which to interpret her ethnographic data. These propositions are based on extensive reviews of works in a wide range of disciplines, including communications, sociology, psychology, economics, and information studies. Concepts such as: the outsider/insider boundary; alienation and
hopelessness; gratification; diffusion, opinion leadership and relevance; secrecy, deception and risk; differing experience of time; race and class; worldview and social norms are all represented in her work. As her perspective evolved, she began to reinterpret her earlier work in light of her later findings, but she never strays far from the idea that information users can be divided into insiders and outsiders, each of which have differing worldviews and different ways of finding, using, and sharing information.

In her 1991 article, Life in a Small World, Chatman examined the information-seeking behavior of janitors at a southern university. Chatman focuses on gratification theory, which maintains that “certain populations live in an environment in which the emphasis is on immediate gratification and satisfaction of needs.” (Chatman, 1991, p. 438) She was especially interested in “why some members of our society do not benefit from sources of information that could be helpful to them.” (p. 438). She notes that “poor people seek immediate gratification because of behavioral characteristics not found in other classes.” (p. 442). These behaviors include the following (p. 439-431):

- The poor experience life in a “small world,” with a limited outlook on the world;
- The poor have lower expectations. Any gains and advances are attributed to luck;
- Their information resources tend to be “first level” or “first order,” such as friends and relatives. There is a prejudice against knowledge from books;
- The lower classes view time in terms of the immediate present and the immediate past. There is very little planning or hope for the future.
- Outsiders may have an insider’s world view, in that they tend to be suspicious of information resources not viewed as central to their small, localized surroundings; and
- The poor are more likely to use the mass media as a primary information source, or as a type of escapism from a grim reality.
In this initial conception of life in a small world, the “lower classes” are assumed to live in a small, localized, restricted and (presumably) less desirable world.

In her 1996 article, The Impoverished Life-World of Outsiders, Chatman looks back on earlier studies and the theories she has tried to apply - including alienation theory, gratification theory, and opinion leadership theory. She identifies four factors comprising a theory of ‘information poverty’: 1) Secrecy, 2) Deception, 3) Risk Taking, and 4) Situational Relevance. (p. 194)

Chatman takes her view of situational relevance from Wilson (1973), who defines situational relevance as “the concept of a relation between an item of information and a particular individual’s view of the world and his situation in it.” (Wilson, 1973, p. 458) Wilson notes that “situational relevance is relevance to a particular individual’s situation—but to the situation as he sees it, not has others see it or as it “really” is. (Wilson, 1973, p. 460) Borlund (2003) discusses Wilson's view of situational relevance in her overview of the concept of relevance in information retrieval. Borlund states that:

> An information object is situationally relevant if it brings about a change in the information recipient’s view of his or her situation whether the change [of knowledge structure(s)] comes from the topic, or the potential utility... (Borland, 2003, p. 921)

Of importance to situational relevance is the concept of worldview. Wilson (1973) states that “The whole stock of his knowledge, his entire image of the world, stands in a potential relation to the situational knowledge…” (Wilson, 1973, p. 462)
Building on factors such as situational relevance, Chatman puts forward new propositions as a Theory of Information Poverty, which describes an “impoverished information world” (Chatman, 1996, p. 197-198):

- Proposition 1: People who are defined as information poor perceive themselves to be devoid of any sources that might help them.
- Proposition 2: Information poverty is partially associated with class distinction. That is, the condition of information poverty is influenced by outsiders who withhold privileged access to information.
- Proposition 3: Information poverty is determined by self-protective behaviors which are used in response to social norms.
- Proposition 4: Both secrecy and deception are self-protecting mechanisms due to a sense of mistrust regarding the interest or ability of others to provide useful information.
- Proposition 5: A decision to risk exposure about our true problems is often not taken due to a perception that negative consequences outweigh benefits, and
- Proposition 6: New knowledge will be selectively introduced into the information world of poor people. A condition that influences this process is the relevance of that information in response to everyday problems and concerns.

New knowledge will be selectively introduced into the information world of poor people. A condition that influences this process is the relevance of that information in response to everyday problems and concerns. These propositions are similar to those in her 1991 article, but they differ in that 1) she notes that economic poverty is not necessarily linked to information poverty and 2) outsiders may engage in behaviors of secrecy, and deception geared towards hiding vulnerability from even their closest family and friends.

By the time of her 1999 article, A Theory of Life in the Round, Chatman notes that “theories borrowed from other disciplines were insufficient.” (p. 207) She decided to study inmates in a women’s prison to “add another level to my understanding of information poverty,” but what she found was “an information world which was
functioning quite well.” (p. 207) In the course of this study, she formed a new framework of information as performance, which has both a certain type of narrative and form. (p. 208)

This more dynamic view of information seems to include a sense of construction or “doing,” on the part of the person. She saw information as a system of related ideas, expectations, standards, and values which allows meaning to occur. (p. 209) She found that “a critical factor in this process is social control,” where one is socialized into a world that liberates as much as it restricts. (p. 216) In the life in the round, inmates take on roles, or social types, such as the lifer, which allow them to fit into this social system. (p. 209)

Her “small world” has now become a “small stage” on which life is played out (p. 210) and where there is a high tolerance for uncertainty and ambiguity (p. 213). Her propositions, which she calls a Theory of Life in the Round, include (p. 214):

- A small world conceptualization is essential to a life in the round because it establishes legitimized others (primarily “insiders”) within that world who set boundaries on behavior.
- Social norms force private behavior to undergo public scrutiny. It is this public arena that deems behavior, including information-seeking behavior-appropriate or not.
- The result of establishing appropriate behavior is the creation of a worldview. This worldview includes language, values, meaning, symbols, and a context that holds the worldview within temporal boundaries.
- For most of us, a worldview is played out as life in the round. Fundamentally, this is a life taken for granted. It works most of the time with enough predictability that, unless a critical problem arises, there is no point in seeking information.
- Members who live in the round will not cross the boundaries of their world to seek information.
- Individuals will cross information boundaries only to the extent that the following conditions are met 1) the information is perceived as critical
there is a collective expectation that the information is relevant and 3) a perception exists that the life lived in the round is no longer functioning.

Chatman notes that life in a small world “is one in which activities are routine and predictable.” (1999, p. 215) She states that “Primary conditions are trust and believability. For information to take on legitimacy, it must be compatible with what members of a social world perceive to be plausible…first level information will be the most believable because it conforms best to common sense. (1999, p. 215)

In addition, Chatman builds upon the concept of social norms, mentioned as one of her propositions in the 1996 article. (p. 197) To Chatman, participants in a small world take on a shared worldview. (p. 210) A worldview is “a collective set of beliefs held by members who live within a small world. It is a mental picture or cognitive map that interprets the world.” (p. 213) They become “insiders” (p. 211) who use their greater understanding of the social norms to enhance their own social roles. (p. 212) It may be that anyone can be an outsider, depending upon one’s point of view.

As Chatman developed her Small Worlds concept, she noted that there can be “outsiders” who have a legitimate role within the small world. Chatman (2000) states that: “...the small world concept allows for the presence of the ‘legitimized others.’ By this I mean people who share physical and/or conceptual space within a common landscape of cultural meaning.” She notes that: “Within the contextual understanding of information behaviors, the legitimized others place narrow boundaries around the possibility of those behaviors.” In other words, legitimized others shape, change, or modify the information that enters a small world in light of a world view. (Chatman, 2000, p.3)
Learned helplessness also plays a part in a small world. Chatman states that janitors “...lived in a world in which they perceived that it was not possible for them to solve their problems by themselves...” (Chatman, 2000, p.5) All of these factors together provide a rich contextual backdrop for the activities of information-seeking. Solomon describes Chatman's Theory of Life in the Round as one:

... where the context shapes an individual’s definition of what information is as well as appropriate ways of seeking information and using it. This brings together individual and social views in a dynamic of actions that unfold over time to structure and constrain what people see and do—a mechanism for managing information overload (Neill, 1992) in its various instantiations through construction of a small information world. (Solomon, 1999, p.151)

Chatman appears to see her “Small Worlds” phenomenon from the perspective of Sense-Making. In her article, “A Theory of Life in the Round,” she states that: “the sense-making activities that accompany the information occur within a context that is shaped by cultural norms and mores.” Chatman (1999, p. 215) However, while Dervin’s initial conception of Sense-Making focuses on the individual, Chatman notes that “It is the collective view that leads to understanding the workings of a small world.” (Chatman, 2000, p. 9) Near the end of her career, Chatman expanded her earlier works beyond the field of “information poverty.” Huotari & Chatman (2001) applied Chatman's small-world theory and social-network theory to the realm of organizational behavior. They noted that Chatman’s conception of Small Worlds was part of a growing number of “Everyday life” information-seeking studies. (Agosto & Hughes-Hassell, 2005; McKenzie, 2003; Savolainen, 1995; Savolainen & Kari, 2004; Spink, Bray, Jaeckel, & Sidberry, 1999; Spink & Cole, 2001).
Chatman’s concepts of insiders and outsiders, worldview, and social norms are all applied in the organizational context. Huotari & Chatman (2001) state that:

An organizational environment is an ideal setting to examine how ordinary life instills a system of common beliefs and expectations that direct a person’s behavior, often without the person’s knowledge. These behaviors work for the individual, but if understood, they can work for the organization, allowing for the assignment of more humane views regarding the nature of work. In the search for this type of information, what the product of that work is and who will be the receivers of it forms a wider perspective, called the information behavior perspective. This perspective becomes the means whereby information behaviors can lead to a common sense of community, thereby forming a part of an organizational culture. As is evident in the ordinary lives of people, dependence on shared beliefs, values, and a collective perception about one’s world and the world of others are the essential characteristics of small world life. (p. 352)

Chatman's work heavily influenced the Discovering Information in Context viewpoint of Paul Solomon. He noted that “Chatman’s work is unique in opening the research lens to its greatest aperture and adjusting the focus to allow individual, interpersonal, group, and organizational/institutional views to blend together to provide an extraordinary conception of psychological information behavior.” (Solomon, 1997a, p. 1099)

5. The Discovering Information in Context approach highlights Activity Theory as a possible tool for exploring how people discover information.

a) What is Activity Theory?

Kuutti (1996) defines Activity Theory as a “philosophical and cross-disciplinary framework for studying different forms of human practices as developmental processes, with both individual and social levels interlinked at the same time.” The roots of Activity Theory lie in the tradition of Soviet cultural-historical psychological research (Leont'ev, 1977, 1978; Luria, 1976; Vygotsky & Cole, 1978), which focused on the development of
“higher psychological processes,” such as memory, and learning. This study follows the line of Activity Theory research developed by Engeström (1987) (for another viewpoint see Bedny, Karwowski, & Bedny, 2001; Bedny & Karwowski, 2004; Bedny, Seglin, & Meister, 2000; Rogers, 2008). Activity Theory has been used as a conceptual framework in many fields of endeavor, including the design of computer interfaces (Bødker, 1991, 1996; Kuutti, 1996; Nardi, 1996).

The value of Activity Theory in information science research has also recently been recognized (Blandford, 2002; Hjørland, 1997, 2000; Hjørland & Albrechtsen, 1995; Spasser, 1999, 2002, 2007; Wilson, 2006; Wilson, 2008). Wilson (2008, p. 119) states:

> At present, research in this area is conducted within separate silos, sometimes defined by problem areas such as information retrieval (IR) and information-seeking behavior, sometimes defined by institutional type, such as research libraries, college and university libraries, school libraries, and so on. There is no overarching paradigm for research in these areas…Activity Theory could provide that overarching paradigm.

Activity Theory takes an interdisciplinary view of human behavior. Hjørland (1997, p.80) states that “Activity theory stresses the development of cognition as a unity of biological development, cultural development, and individual development. It has a strong ecological and functional-historical orientation…” Wilson (2006) states that: “Leont'ev defines ‘activity’ as those processes ‘that realise a person's actual life in the objective world by which he is surrounded, his social being in all the richness and variety of its forms’ (Leont'ev 1977). Thus, society, or ‘community’ as it is expressed in later activity theory writing, is central to Leont'ev's concept of activity.”
Spasser (2007) states that:

…activity theory is a promising new direction for the field of information science research. Conceptually, the theory registers the shift of focus from the interaction between the isolated user and the stand-alone computer to a larger, more ecologically valid interaction context between human beings with their environment; sensitizes us to the dynamic and evolving nature of human-computer interaction and of information system design and evaluation; and highlights the rich, multi-faceted, and multi-dimensional reality of computer-mediated activity in situ....

Activity Theory allows for the study of both individual interaction with an information system as well as the broad social context of information behavior. Spasser (2007) notes that Activity Theory can help to provide a common language with which to approach information studies. Spasser states that:

…activity theory can provide information science with a rich, unifying, and heuristically valuable vocabulary and conceptual framework that will facilitate both the continual betterment of practice and the secure transferability and accumulation of knowledge.

Hjørland (see Hjørland 1995, 1997) has been one of the most vocal proponents of viewing information science from the standpoint of Activity Theory. Hjørland operates from a stance which he calls “methodological collectivism.” He states that “From a methodological collectivist point of view, IS does not take as its starting point the individual’s knowledge structure, but instead looks at knowledge domains, disciplines, or other collective knowledge structures.” (Hjørland, 1997, p. 118)

The contextual approach in this study has some affinity with Hjørland’s view, in that it does take approach information science largely from the perspective of Activity Theory.
However there are differences in that it focuses on the activity in a cultural and historical context, rather than the domain, as the unit of analysis, and views these activities as taking place within an overall Sense-Making process. While Hjørland takes a collectivist stance, his focus is more on the domain, as opposed to the activities of people within a given domain situated in historical and cultural context. See Ditsa (2003) for a general overview of Activity Theory. Activity Theory has also been seen as a design-oriented perspective for information behavior research. (Kane, 2007)

Motivated human activity is the unit of analysis in Activity Theory research. Activities consist of a dynamic system of users, mediating artifacts, user objects, as well as a community, rules and social norms, and a division of labor. Activity Theory rejects the isolated human being as an adequate unit of analysis, insisting on cultural and technical mediation of human activity. The unit of analysis then revolves around “a particular work or educational activity, with its community of practice, actors, rules, division of work, and tools.” (Bertelsen & Bødker, 2003, p. 298) They further state that:

Activity Theory takes motivated activity as its basic, irreducible unit of analysis. This unity implies that human conduct cannot be understood as the mere aggregation of behavioral atoms, and that consciousness is rooted in practical engagement in the world. (p.304)

To understand Activity Theory, one must first start with what Vygotsky\(^4\) believed. He stated that animal behavior was characterized by a direct route between the subject (person who wants something) and the object (what he wants). What made human behavior distinctly human was a mediating factor, which is culturally situated. This

\(^4\) While Vygotsky ultimately practiced as a psychologist in the former Soviet Union, it is of interest that he also received legal training as part of his education.
mediating tool, also known as an instrument, could either be a physical artifact or technical instrument (what we normally think of as tools) or a psychological instrument (what we think of as signs, and language – talking to other people). See figure below:

![Figure 6 Vygotsky's Mediating Triangle - From Cole & Engeström (1993)](image)

In his experiments on child behavior, he found that if posed with a problem, a child was likely to take one of two courses. The child would either try to use a physical tool, such as a stick to reach some cookies, or talk (signs, language) to an adult (mediator) to get the cookies for the child (intervention). In the context of legal research, the professor (subject), might want to use Westlaw (mediating tool), in order to find a case (object/ive) so that he can update his law review article (outcome). Of course the professor/subject might choose among any number of mediating tools, such as books to achieve his object. Jones (2002) defines the object-outcome as “The objective or problem space which defines the scope of directed activity, which transforms through instrumental action into a
designed or mediated outcome.” In Activity Theory then, the motivation or need to do something (the objective) is inherently linked to the ultimate outcome, or the use to which the goal or objective will be put.

Activity theory also takes into account the object, or objective and the ultimate outcome of the activity. This focus on the object (often referred to as “object-orientedness”) can also mean that a physical object is created as part of the outcome of an activity system. De Souza and Redmiles (2003), note that “Activity theory allows a variety of ways to analyze phenomena…Activities are associated with objectives called “outcomes.” People working within a community share activities. They work to create objects and rely on tools referred to as artifacts to support their activity. Rules instantiate division of labor and practices of the community.”

In other words, what makes us “truly human” is our use of artificial memory such as language and books (see also Simon, 1996). In Activity Theory research it has been seen as a particularly human characteristic to “extend themselves with artifacts that are both augmentations of and external to the person” (Bertelsen & Bødker, 2003, p. 305). From their early history, humans have created artificial memory systems such as strings around fingers and sticks. To Vygotsky then, almost everything we do involves mediation. The distinction lies in the types and levels of mediation we choose to study.

The theory was later expanded to include an outcome, community, rules, and division of labor. Engeström (1987) has provided a popular visualization of this expanded concept:
Figure 7 The structure of human activity (Engeström, 1987)

The outcome of a given activity could then become a mediating tool or artifact of another activity system. Note that in many representations, the lines in the expanded Activity Theory Matrix end in arrows at each end. See image below (from Collins, Shukla, & Redmiles, 2002):
Collins, Shukla, and Redmiles (2002, p. 19) note that some “have found Engeström’s activity system model, especially its relationship arrows between the elements of primary relationship, to be confusing…Of course, part of the message in Engeström’s model is that activity systems are complex and have many first-order relationships between elements.” While the subject is on the central line of the diagram, in the Activity Theory matrix the eye is drawn to the area of intersecting lines, which represent how the various “nodes” (subject, mediating artifacts, object, rules, community, division of labor) interact with and have an effect upon each other.

To Vygotsky, the development of “higher mental processes” that make us uniquely human hinges on social interaction. What makes us human also hinges on semiotic mediation and communication. Vygotsky’s work (with its focus on using physical and psychological tools) was suppressed by the Soviet government for many years. His followers, such as Leont’ev focused on conscious actions and unconscious operations as well as more doctrinally safe Marxist ideas such as community, rules and division of labor. The meaning of these concepts is outlined below:

Work processes take place through the interaction of activities, actions, and operations. An activity is made up of conscious actions (which are undertaken according to some kind of intention, goal, or objective) and unconscious operations (Bødker, 1991; Kaptelinin & Nardi, 1997; Leont'ev, 1978). See Bødker’s (1991, p. 24) depiction of mediated activity, and Leont’ev’s levels of mediating activity graphic below:
Problems occur when unconscious operations become conscious actions.

**Division of labor** – refers to the differentiation of tasks and occupations within a society. Adam Smith saw it as the key to increased productivity. Marx, however, saw it as an evil of capitalism that could result in alienation. Sowell (1985) states that:
There was also a non-economic dimension to Marx’s increasing misery of the proletariat. The dialectical conception of man unfolding his potentialities in the process of working – “the creation of man by human labor” – underlies many Marxian discussions… Capitalism, however, produces a division of labor that thwarts such development.

Engeström (1987) noted that there could be societal division of labor, organizational division of labor, and interpersonal division of labor. Jones (2002) defines the division of labor as “The division of tasks horizontally among community members and vertically in distinctions of power and status.” Trosow’s (2003) article titled “The database and fields of law: are there new divisions of labor?” explored the concept of division of labor (although not specifically from within the Activity Theory perspective). He asked “what is the relationship between advances in information technology and occupational structures in information intensive environments?” He argued that the rise of databases has affected the occupational structure and practices in the field of law.

**Community** – According to the Oxford English Dictionary (OED), community refers to “Life in association with others; society, the social state” or, “a body of people living together.” Community can also be seen in from the perspective of **Community of practice** (Lave and Wenger, 1991; Wenger, 1998). Hara (2001) defines “communities of practice” as “informal networks that support a group of practitioners in developing a shared meaning and engaging in knowledge building among the members.” Engeström (1987) noted that community could also be seen as a societal network of activities, collective organization, or immediate primary group. Jones (2002) defines community as “A specific, distinct collection of individuals or groups oriented toward the general object of activity.”
In this study, community is seen in terms of Chatman’s Small Worlds concept, as discussed previously. In Chatman’s view, a “small world” is one where people operate within a socially bounded sphere within which they can obtain information quickly and in a low-risk environment. Chatman’s conception of small worlds is:

- to describe a world in which everyday happenings occur with some degree of predictability. Even more importantly, the small world concept allows for the presence of ‘legitimized others.’ By this I mean people who share physical and/or conceptual space within a common landscape of cultural meaning. Within the contextual understanding of information behaviors, the legitimized others place narrow boundaries around the possibilities of these behaviours. In other words, legitimized others shape, change, or modify the information that enters a small world in light of a world view. In this instance a world-view is that collective sense that one has a reasonable hold on everyday reality. (Chatman, 2000, p. 3)

Chatman notes that “Of course, every member holds a private world-view, however, from a social researcher’s perspective, it is simply not enough. It is the collective view that leads to understanding the workings of a small world.” (Chatman, 2000, p. 9)

Chatman (2000) notes that the concept of “small worlds” did not originate with her, and has been addressed by researches such as Schutz and Luckmann (1973), and Kochen (1989). The small worlds concept is also commonly thought of in terms of “six degrees of separation.” See also Milgram (1967), Kochen and de Sola Pool (1978), and Watts (1999; Watts, 2003; Watts & Strogatz, 1998).

Social norms are organized so as to make it possible for individuals to live together in relative peace and security. Each of us gains that peace and security by giving up freedoms we might otherwise have. This system cannot work, however, unless people abide by the established norms, and social control mechanisms that are created to ensure obedience to the norms.

Engeström (1987) noted that social norms could be societal (state, law, religion), organizational rules, or interpersonal rules. Jones (2002) defines rules as shared understandings and conventions, values, explicit and implicit regulations, and norms that enable interaction and constrain behavior.

In this expanded Activity triangle, all of the nodes, including community and rules can be seen as a type of mediation. Wilson (2008) notes that the word “tool” as Vygotsky and his followers envisioned it,

is a complex concept, involving not simply, for example, chisels and planes to work on wood but also our mental tools of language and symbol. Furthermore, the kinds of sociocultural phenomena such as rules, norms, and the division of labor…can also be viewed as tools in the sense that they are constructs through which our interaction with the object may be constrained or assisted. (p. 124)

Activity Theory provides a very specific context in which to consider human behavior, including not only the physical mediating tools, but also language, social norms, and community.
b) Themes of Activity Theory

The main themes of Activity Theory include (see generally Bertelsen and Bødker (2003):

- Notion of the artifact as mediator of human activity;
- Focus on the development of expertise and use in general;
  - Learning is seen as a voyage through **Zones of Proximal Development**. Active user participation in design, and **focus on use** as part of design.
- **Internalization and Externalization**;
- **Inner Contradictions**;
- **Historical** context of artifact use;
- Focus on the dynamic, **transformational aspects** of the activity system;
- Focus on more **social aspects of information behavior**, such as social rules and norms, community, and division of labor; and
- **Object-orientedness**.

All human activity is mediated by socially produced artifacts, such as tools, language, and representations. (Bertelsen and Bødker, 2003, p. 305) From a dialectical standpoint, we are transformed by our tools as we transform them:

> Because human activity is historically constituted and constantly developing, human use of technology cannot be meaningfully understood in terms of stable entities. (p. 312-313)

People are understood in terms not of what they are but what they are becoming.

Bertelsen and Bødker (2003, p. 313) further state:

> However, computer artifacts are not only tools mediating users’ relations to their object of work; they are, at the same time, media mediating the relation between designers or culture and users. Computer artifacts are social mediation in the same sense as books, and accordingly the designer leaves traces that help her to be present as a more capable peer, guiding the user through the zone of proximal development.

Spasser (2002) states that “An activity system is a triply-mediated, outcome-oriented unit of analysis. Instruments (i.e., resources) mediate the relationship between subject and object; social rules and regulations mediate interpersonal relationships; and roles (i.e., division of labor) condition the relationship between a community of practice and its
negotiated object.” The activity system can become even more complex as the outcome of one activity system can then have further interaction with users as it becomes the artifact involved in another activity system.

Activity Theory is at its heart a cognitive model, which was later expanded to include social elements. In this sense it has undergone a similar evolution as Sense-Making and other information behavior theories. Vygotsky saw “mediating artifacts” themselves as a type of memory. Gerry Stahl wrote about “Mediation by Artifacts” in his 2002 article, “Contributions to a Theoretical Framework for CSCL.” He defined “mediation,” stating that mediation “means that something happens by means of, or through the involvement of, a mediating object. For instance, when a student uses a technical term to construct knowledge or when a class of students uses a software collaboration system to discuss a theme, that term or that system is mediating the activity: It is providing a medium or middle ground through which the students interact with their ideas.” (Stahl, 2002) Stahl states that:

Vygotsky (1930/1978); 1934/1986) wanted to supplement Marx's social theory with a psychology of mediated cognition (a perspective on the individual intertwined with the group perspective). He extended the notion of physical artifact (tool) to encompass linguistic artifacts (symbols) as well. The individual's activity was then seen to be mediated by both varieties of artifact. The human ability to use physical and linguistic artifacts is a cultural development that allowed mankind to evolve beyond its biological basis. Stahl (2002)

Stahl argues that the Vygotskian perspective on artifacts, brought to its logical conclusion means that what he calls “knowledge building” is part of a construction or design process:
If we adopt a Vygotskian view of mediation by artifacts, then the knowledge building process can be conceptualized as the construction of knowledge artifacts, involving physical and symbolic artifacts as starting point, as medium and as product. The process proceeds collaboratively and intersubjectively, within a socio-cultural context. Stahl (2002)

Stahl (2003) states that “shared meaning exists in the observable world and collaborative meaning-making necessarily unfolds there.” (Stahl, 2003, p.9)

Internalization is seen by Vygotsky as the process by which external actions become internal thoughts. For example, how children initially use their fingers for counting but then internalize the process. Internalization is also seen as how internal thoughts affect external actions and vice versa. For example, Bertelsen and Bødker (2003, p. 299) state that “Psychological instruments like language and concepts are internalized during childhood development.”

Activity Theory also focuses on the historical context of artifact use. Activity Theory sees people in terms of a continual process of growth and change. This growth process is fueled by tensions and inner contradictions within the system. Engeström (1987) saw the primary contradiction in terms of Marxist economics. “The primary contradiction of all activities in capitalist socio-economic formations is that between the exchange value and the use value within each element of the activity system.” From a more philosophical standpoint, in dialectical thinking (Hegel, Marx) social systems are understood as eternally evolving by the resolution of inner tensions and conflicts. Bertelsen and Bødker (2003, p. 312) note that “Engeström suggests studying contradictions between, for example, the tools currently used and the object created, or the norms that are part of practice and the division of work.”
Wenger (1998), in distinguishing Communities of Practice from Activity Theory, describes the role of development in Activity Theory:

Activity theories focus on the structure of activities as historically constituted entities. Their pedagogical focus is on bridging the gap between the historical state of an activity and the developmental stage of a person with respect to that activity – for instance, the gap between the current state of the language and the child’s ability to speak that language. The purpose is to define a ‘zone of proximal development’ in which learners who receive help can perform an activity they would not be able to perform themselves. (p. 280)

Activity Theory takes into account more specifically the role of individuals and their tools in addition to the collaborative aspects of the community. Activity Theory provides a specific context in which to examine information behavior which includes both individual and group elements.

In Activity Theory, tensions and contradictions between portions of the activity system play a special role. There may be tensions between the object and the community, the rules and the community, and mediating artifacts and collaboration. See, for example, Collins, Shukla, and Redmiles (2002). These tensions and contradictions trigger opportunities for reflection (Schön) and hopefully, opportunities for the overall improvement of the system.
c) **Breakdowns and information behavior**

The concept of breakdowns is a theme which has been explored in many areas of research, including, more recently, Activity Theory based design research in the area of Human Computer Interaction (HCI) (see, for example, Bødker, 1991, 1996). Breakdowns occur in the context of Activity Theory when there is a conflict between what is expected to happen and what actually happens (Bødker, 1991). In a breakdown situation, unconscious actions become conscious operations. Breakdowns are “openings for learning and self-reflection,” while “focus shifts” are more deliberate and voluntary (Bødker, 1996). A “breakdown” in the context of this study basically means that the system is not working for the user in some manner. A “system” does not necessarily have to be a computer or information retrieval system. In this study “system” is broadly defined to include social and non-technological aspects of the information use environment.

Schön (1983) discussed the topic of breakdown in his work, *The Reflective Practitioner*. He describes breakdowns as part of a process of “Reflection in Action,” and argues that we start with a situation of action to which we bring spontaneous, routinized responses. These reveal “knowing-in-action” that may be described in terms of strategies, understandings of phenomena, and ways of forming a task or problem appropriate to the situation. (p. 52) This “knowing-in-action” is tacit, and unconscious. It yields intended outcomes as long as the situation falls within the boundaries of what we have learned to
treat as normal. In other words, “knowing-in-action” is a contextualized process in which we are immersed daily without knowing it. A breakdown occurs when routine responses produce a surprise - an unexpected outcome, pleasant or unpleasant, that does not fit the categories of our knowing-in-action. This surprise gets our attention, and becomes an opportunity for learning and conscious self-reflection. In other words, the action becomes decontextualized, and we have to consciously examine it, or “refit” it into a new context so that we may continue.

Winograd and Flores (1986) trace the theory of breakdowns to phenomenology and hermeneutics. Phenomenology (Husserl) is the philosophy that the nature of knowledge is rooted in human experience, as opposed to the justified true belief model of the rationalists. Hermeneutics is concerned with the interpretation of text. Heidegger’s concept of breakdowns is that the properties of objects (such as hammers) only become apparent “in an event of breaking down in which they become present-at-hand.” (Winograd and Flores, 1986 p. 36) Winograd & Flores go on to explain: “the hammer presents itself as a hammer only when there is some kind of breaking down or unreadiness-to-hand. Its “hammerness” emerges if it breaks or slips from grasp or mars the wood, or if there is a nail to be driven and the hammer cannot be found.”

Christopher Alexander (1964), posits (much like Heidegger) that it is far easier to talk about a “bad fit” of a tool with its purpose than a “good fit.” It is the breakdown in use that helps to separate the tool from its surrounding field of everyday use and subject it to scientific examination. Alexander notes that (1964, p. 63) “It is difficult to characterize a
good fit, but easier to characterize a misfit.” He notes that misfits are easy to recognize “because they are expressed in negative form they are specific and tangible enough to talk about.” Breakdowns help to make more tacit phenomena visible.

The concept of breakdown is also important to Suchman’s (1987) concept of situated action. Suchman (1987, p. 53) also discusses breakdowns in Heidegger’s term of “ready-to-hand.” She notes that “At such times, inspection and practical problem-solving occur, aimed at repairing or eliminating the disturbance in order to ‘get going again.’ In such times of disturbance, our use of equipment becomes ‘explicitly manifest as a goal-oriented activity,’ and we may then try to formulate procedure or rules…”

She continues that:

“The important point here is just that the rules and procedures that come into play when we deal with the ‘unready-to-hand’ are not self-contained or foundational, but contingent on and derived from the situated action that the rules and procedures represent. The representations involved in managing problems in the use of equipment presuppose the very transparent practices that the problem renders noticeable or remarkable. Situated action, in other words, is not made explicit by rules and procedures. Rather, when situated action becomes in some way problematic, rules and procedures are explicated for purposes of deliberation and action, which is otherwise neither rule-based nor procedural, is then made accountable to them.” (Suchman, 1987, p. 54)

Suchman (1995) argues the more ways are need to make the often hidden processes of work more visible. She states that “At some moment, by some means, the specifics of how people work become crucial to the design of working systems.” (Suchman, 1995, p. 61)
Making work visible, however, is not an easy process. Suchman (1995) states that:

In a recent project to prototype new technologies in a law firm, for example, we discovered an ongoing struggle over the status of a form of work called document coding, done to support the litigation of large cases. In their distance from the work of document coding, attorneys at the firm held highly simplified views of what the work involved. Specifically, document coding was described to us a form of unskilled, even “mindless,” labor, representing a prime target for automation or outsourcing as part of a general cost-cutting initiative within the firm. When we looked at the work of document coding, however, we saw the interpretations and judgments that litigation support workers were required to bring to it. Thus we found ourselves in the middle of a contest over professional identities and practices within the firm: a contest between one characterization of work, made possible by distance, and another held by those who did the work (and confirmed by our own observations of what it entailed). (Suchman, 1995, p. 59)

Preece (1994) notes that various literatures view the concept of breakdown in different ways. In action research, breakdowns are the stimulus for self-reflection and continued learning. In distributed cognition, breakdowns are examined to determine areas of improvement in the system. Preece (1994, p. 71) states that “term breakdowns is used to describe the various incidents, problems, inefficiencies, mishaps and accidents that arise in the work setting.” Preece (1994, p. 194-195) notes that in Activity Theory, “Breakdowns occur when there is a conflict between what is assumed to happen and what actually happens… Contradictions occur when vicious circles develop that prevent workers from breaking out of inefficient and undesirable situations that have developed in a community practice…to resolve breakdowns and contradictions, Activity Theory proposes that the users and practitioners themselves need to understand the nature of the conflict and work out a way of overcoming it.”
Many types of information behavior research also involve some type of breakdown. In fact, the very concept of information need starts from the premise of some type of motivating factor which has been described as a lack, a gap, uncertainty, a memory deficit, or an anomalous state of knowledge. This is evident in several widely cited information behavior models, such as ASK, Sense-Making, and Kuhlthau’s search process model. The very condition of an ASK (Anomalous State of Knowledge) can be seen as a type of breakdown situation. Belkin et al. (1982, p. 62) describes the situation as the “ASK Hypothesis:” “The ASK hypothesis is that an information need arises from a recognized anomaly in the user’s state of knowledge concerning some topic or situation and that, in general, the user is unable to specify precisely what is needed to resolve that anomaly. Thus for the purposes of IR, it is more suitable to attempt to describe that ASK than to ask the user to specify his/her need as a request to the system.” Marchionini, Dwiggins, Katz, and Lin (1993) discussed the nature of information need in terms of a “resource demand on short-term memory.” (p.23)

Dervin’s Sense-Making research focuses on the individual in a situation where he or she is stopped from moving forward because of an uncertainty or a perceived gap or lack of information. As we have seen previously, Dervin’s conception of a breakdown not only includes the gap, but also the active process of construction of a bridge with which to span the gap. Paul Solomon in a study of children's information retrieval behavior defined the concept in the following manner: “breakdown is an interruption in the flow of normal activity that can either be overcome with some effort or serve as a lasting blockage to progress.” (Solomon, 1993, p. 250)
Although Kuhlthau’s information search process model can be seen only as focusing on affective aspects of the information search process, it can also be seen as tracking the gradual resolution of a breakdown situation. Kuhlthau (1991, 1993) states that information seeking is an iterative process, going through several stages: 1) initiation (stimulated by information need) 2) selection, 3) exploration 4) formulation 5) collection 6) presentation. She tracks “the affective (feelings), the cognitive (thoughts) and physical (actions) through each stage of the information seeking process. (p. 41-43) Each stage consists of certain activities. As the searcher progresses through these stages, uncertainty and its associated affective discomfort are diminished. In Wilson’s (1999) framework of information behavior models, barriers (or breakdowns) are seen as a key part of the information seeking process. The barriers can be personal, role-related, or environmental.

Breakdowns are also evident in the Imposed Query Model (Gross, 1995). She states (1995, p.236):

> The basic interaction described here is common to many relationships. Consider the secretary locating information for the boss, the immigrant child transacting in the world for the non-English speaking parent, the law clerk running errands for the lawyer. All of these relationships have in common the fact that people are seeking information not because they have identified an information need themselves, but because they have been set on that course by another. The information need or question he or she wishes to answer is not his or her own in the sense that it was generated in his or her own mind or out of the context of his or her own personal life. Rather, the question has been imposed upon him or her by someone else.

Note that in the Gross model, there is information that the agent does not have but that the imposer does. This can lead to barriers or potential failure points as the agent interacts with the intermediary. In addition, there may be variations on this theme such
as collaborations between teachers and students which could be seen as more “partially imposed queries.” The Gross is the model has a certain affinity with Activity Theory. Her notion of the imposed query could be argued to be a type of division of labor. However, her model, while taking into account social aspects, does not do as well with individual aspects of information behavior (Gross refers to an individual query as a self-generated query).

Much of the literature of the needs of the “information poor” could be seen as describing a sort of breakdown situation on the part of those users. For example, Childers and Post (1975) noted potential needs (as opposed to kinetic needs) which may remain unexpressed. Chatman (Chatman, 1990, 1991a, 1996; 1999) describes circumstances where feelings of alienation and powerlessness result in failure to pursue sources of needed information.

The study of breakdowns in IR and information behavior research is also related to several end-user searching research approaches such as stopping behavior, pausing behavior, error analysis and focus shifts (see Ankeny, 1991; Huang, 2003; Lancaster, 1972; Olah, 2005; Robins, 2000; Tonta, 1992; Zach, 2005). All of these approaches to the concept of breakdowns attempt to determine patterns in information behavior by describing the “misfits.”

Much of information behavior can be seen in terms of breakdowns in the problem solving process which motivate information seeking and breakdowns which become barriers to
access to information or which hinder searching. However, breakdowns are also opportunities for learning, growth, and reflection. From the perspective of Activity Theory, breakdown situations help to reveal tensions and inner contradictions within an information activity system which can lead to growth and change. As with Sense-Making, theory and method are closely interlinked. Methodologically, breakdowns may help to make visible phenomena which otherwise are difficult to discern.

Gerry Stahl writes of breakdowns in terms of interpretation. He states that:

According to the philosophy of situated interpretation, human understanding develops through interpretive explication involving both (1) preunderstanding and (2) explorative discovery of the situation. In Heidegger’s analysis, interpretation provides the path from tacit, uncritical preunderstandings to reflection, refinement, and creativity. The structure of this process of interpretation reflects the inextricable coupling of the interpreter with the situation, i.e., of people with their worlds. One’s situation is not reducible to one’s preunderstanding of it; it offers untold surprises, which may call for reflection, but which can only be discovered and comprehended thanks to one’s preunderstanding. Often, these surprise occasions signal breakdowns in a person’s skillful, transparent behavior, although one can also make unexpected discoveries in the situation through conversation, exploration, or external events. (Stahl, 1993, p. 30)

Stahl then, sees breakdowns as part of the process of knowledge growth and learning. Breakdowns help knowledge make the transition from the tacit to the explicit. (Solomon, 1997b) noted that affective signals of frustration are key indicators of a breakdown situation. (p.1120)

The Discovering Information in Context approach views barriers to information in terms of breakdown situations. It is based upon Sense-Making, which sees information-seeking as an active process of design, and upon Small Worlds, which sees information-seeking

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5 See (Lueg, 2003) for a discussion of problem solving and information behavior.
as a collaborative process. While existing information behavior models have traditionally put more emphasis on individual as opposed to collective action, the Discovering Information in Context approach puts forward Activity Theory as a possible discovery tool for examining both the individual and the collective aspects of information behavior. In this study, Activity Theory is used as an information discovery tool, to examine the behaviors of clinic participants as they moved through time and space to solve their information problems.

**d) Applications of Activity Theory in information behavior**

The bulk of the Activity Theory research work has been done in the area of Information Systems, particularly in HCI and CSCW (See special issue on Activity Theory and the Practice of Design, CSCW, 11(1-2) 2002). Activity Theory has been used both explicitly and as an ad hoc approach to information behavior in several design studies in HCI and CSCW. Activity Theory has been used to map artifact use in areas such as medicine (Engeström 1993, 1995), digital library design (Spasser, 2002), and education (Bellamy, 1996; Jones, 2002). Koschmann and Stahl (1998) discussed activity systems in their examination of the collaborative information seeking behavior of medical students in a problem-based learning environment.

Hjørland (2000) called for Activity Theory to be used as the basis for information behavior research, and P. Jones (2002) used Activity Theory as a framework for studying collaboration in information seeking patterns of research scientists. The works of
Kuhlthau (1993) can also be included, as a portion of her theories are based on Vygotsky, such as the Zone of Intervention, with its levels of mediation.

Of particular importance to this study are the works of Peter Jones, who (2002; 2005) studied information use in a collaborative academic environment. His research had a Computer-Supported Collaborative Work (CSCW) focus, and was based upon Activity Theory, Rapid Ethnography (Millen, 2000), and Contextual Design. Stating that existing information behavior models were far more oriented to the individual than to the social, he used the Engeström Activity Theory pyramid to map information use in an academic setting. Jones (2002) states, “An example activity model for Research Project/Program identifies factors for a range of complex information situations… We could trace activity for any one of these subjects, each with a different information behavior ‘trajectory.’”

See graphic below:

Figure 3. Activity Model at Research Project Level.

Figure 10 From: Jones (2002)
Jones (2002) states “Engeström’s Activity Theory model offers a means of specifying the goals and influences on individual activity within a meaningful context of use.” This context of use includes both the use of the information system and the use to which the information will ultimately be put.

Wilson (2006) notes that Activity Theory brings a wider perspective of social interaction to the field of information behavior. A recent Activity Theory-themed edition of *Information Research* explored Activity Theory with respect to web design (Kane, 2007), information sharing in organizations (Widén-Wulff & Davenport, 2007) and school library programs (Meyers, 2007). It was also seen in that issue as a possible theoretical foundation for distributed information behavior (von Thaden, 2007), and as a possible perspective for the anthropological sciences in general (Karpatschof, 2000). Wilson (2008) points out that relatively little research has been done using the Activity Theory perspective in information science research, and goes on to note the potential of Activity Theory for information literacy and computer-based collaborative learning.

Activity Theory has been used to map artifact use in several HCI design studies. For example see Collins, Shukla, and Redmiles (2002) and de Souza and Redmiles (2003). Note that while Activity Theory has been used to map artifact use a court setting (Engeström 1995, 1998), it has not been used to examine information behavior in a law school clinic.

Wilson (2006) notes that Activity Theory can be seen more as a what could be termed a metatheory (see Dervin, 1999b; Vickery, 1997). Wilson states that Activity Theory:
…can be quite a powerful analytical tool and conceptual framework for enquiry. It should be noted, however, that, in spite of being termed activity theory, it is not a predictive theory, but rather a framework based upon a particular theory of human consciousness, aiming at explaining the character of human behaviour. The practical implication of this, in theoretical terms, is that no one theoretical position is involved in its use. Human information activity can be explored with the application of many theories... and there is no reason why a proponent of any theoretical position should not adopt an activity theory framework for his or her work.

Activity Theory, then, can be seen as a model which allows for the consideration and visualization of both individual and social levels of human behavior in its application. Other information behavior models such as Small Worlds (Chatman) can be considered within an Activity Theory framework.

For example, vonThaden (2007) examined information behavior patterns of flight deck team members and suggests a framework based in part upon Activity Theory, the Distributed Information Behavior System, to research the distribution of information actions in a “dynamic, safety critical environment.” His distributed information behavior system model is also based upon the work of Ellis (1989, 1993, 1997) and Choo et. al. (2000). He divides information behavior into three major categories, information need, information seeking, and information use. Within those categories he divides activities in terms of “casual exploration” or more methodological “exploitation.”

vonThaden states that “By understanding the processes that allow for seamless fluidity of operation in high-risk systems, we can form models of supportive infrastructure to scale to the demands of everyday collective activity. To do so, we need to draw on multiple foundations to study information activity.” vonThaden also considered factors such as
mental models (Johnson-Laird, 1983) as well as Hutchins’ (Hutchins, 1995a; Hutchins, 1995b) distributed cognition theory. It should be noted that some differentiate distributed cognition and Activity Theory. Kaptelinin and Nardi (2006) note that to some extent Activity Theory and distributed cognition rest on differing assumptions. They state that distributed cognition is “symmetrical” while Activity Theory is “asymmetrical:”

Actor-network theory and distributed cognition begin from an entirely different standpoint. Where activity theory and phenomenology develop an asymmetrical notion of tools mediating human experience, actor-network theory and distributed cognition define a network or system in which symmetrical nodes can be human or nonhuman, and are treated alike. (p. 201)

In other words, in Activity Theory, all of the elements of the Activity Theory matrix are not equal. The subject is the prominent node in Activity Theory, taking advantage of the other nodes such as mediating tools, and community. By focusing on the subject as part of a system of activity, Activity Theory takes a middle road between individual and social perspectives of human cognition.

Earlier, major information behavior models were discussed and placed into a framework of general information behavior, information seeking-behavior, and more system-specific information searching behavior. See the figure below:
Could such a representation be accomplished using the Activity Theory matrix? Can Wilson’s 1999 levels of information behavior be seen as levels or zones of mediation? For example, his information searching behavior category could be said to involve using mediating tools. Information-seeking behavior from the perspective of Activity Theory could be stated as the search processes engaged in by a subject in order to meet an objective. His general information behavior category could include more social and cultural-historical aspects of information behavior, although it encompasses more than just social aspects.
As information behavior models expand to include more social aspects, they come closer to the types of factors encompassed by activity theory. For example, the Choo et.al. (2000) Human Information Seeking model (see figure below) includes many aspects similar to Activity Theory. Choo’s model includes social norms and rules as a primary component, something not often encountered in the more traditional information behavior models.

![Human Information Seeking: A Framework](image)

**Figure 12** Choo, et. al. (2000) Human Information Seeking: An Integrated Model

IR interaction models such as Ingwersen (Ingwersen, 1992, 1996; Ingwersen & Järvelin, 2005) have also undergone an expansion from a cognitive viewpoint towards the
inclusion of more social elements. Ingwersen sees information as a process of contextualization and decontextualization. He sees uncertainty and loss of meaning as being fundamental characteristics of IR interaction. From Ingwersen's perspective, the meaning in data transmitted by a machine is lost and has to be rebuilt by the receiver of the message.

In this contextual point of view, data is totally decontextualized, information only partially so, and knowledge has been recontextualized and integrated into the memory of the person so that they can make use of it in their own context. See the original Ingwersen model (Ingwersen, 1992) below:

Figure 13 Ingwersen's (1992) Model of the IR Process
Ingwersen and Järvelin (Ingwersen & Järvelin, 2005; Järvelin & Ingwersen, 2004) refined the original Ingwersen (1992) model, adding in more specifically environmental factors such as the social and cultural environment. See below from (Järvelin & Ingwersen, 2004):

![Diagram of information seeking, retrieval, and behavioral processes](image)

**Figure 14** Ingwersen & Järvelin Interactive Information Seeking, Retrieval, and Behavioral processes.

Ingwersen and Järvelin (2004) write:

We may observe cognitive actors such as information seekers in the middle surrounded by several kinds of contexts. These are formed by the actors' social, organizational and cultural affiliations, information objects, information systems and the interfaces for using them. The context for any node in the diagram consists of all the other nodes....

…Information seeking behaviour means the acquisition of information from knowledge sources. For instance, one may ask a colleague, through (in)formal channels such as social interaction in context (arrow 1), or through an information system (arrows 2-4).
Secondly, actors operate in a dual context: that of information systems and information spaces surrounding them, and the socio-cultural-organizational context to the right. Over time, the latter context influences and, to a large degree, creates the information object space on the one hand (arrow 6) and the information technology infrastructure (arrow 8) on the other.

In different roles, the actors themselves are not just information seekers but also authors of information objects (arrow 5) and creators of systems (arrow 7).

This view of information also meshes with theories such as Activity Theory. In fact, if you rotate the extended Ingwersen & Järvelin model, and place it beside an Activity System representation, you can see distinct similarities:

![Figure 15 Ingwersen & Järvelin Model – rotated](image-url)

Compare with the Activity Theory matrix, below:
Ingwersen and Järvelin (2005) discuss the role of context in individual cognition. They state the issue as “whether context or environment is the determining factor for individual cognition or whether it is the individual perception of that context situated in interaction that determines the outcome?” (Ingwersen & Järvelin, 2005, p. 30) They argue that cognition is “influenced but not directed or dictated by the environment or domain. Hence, it is the individual perception of the situation in context that prevails.”

They view the person in context in a way that is in some ways similar to Activity Theory. They state that: “In our view the individual actor possesses relative autonomy and may therefore – influenced by the environment – contribute to the change of a scientific domain, of professional work strategies and management, or indeed a paradigm. This combined bottom-up and top-down view of cognition is named the principle of complementary social and cognitive influence.” (Ingwersen & Järvelin, 2005, p. 31)
However, there are differences between the Ingwersen and Järvelin model and the Activity Theory matrix as well. The Ingwersen and Järvelin framework includes single arrows to denote a one-way relationship in some instances. Where the Activity Theory matrix is presented with arrows they are usually double-ended, to indicate mutual interaction and mutual effects upon the related elements.

Looking back to the Activity Theory matrix, the top portion of the AT triangle can in some ways be seen as a basic template for information behavior, consisting of information need (the motivating force behind the activity), information seeking (the activity itself), and information use (reflecting upon and using the information obtained and putting into practice). Information behavior starts with motivation, or information need, which leads to information seeking and information searching behavior. The user then tries to incorporate the information gained through the information seeking process into the practice of their work, or everyday life. If reflection shows that the objective is not met, and the information cannot be put into practice, another cycle of activity may commence. At each stage, reinforcement/feedback (either positive or negative) may occur. If motivation is negative, the cycle repeats, or it could lead to information avoidance behavior.

Mapping existing information behavior theories to Engeström’s extended Activity Theory triangle allows a representation which might not otherwise be possible, particularly with theories such as Berrypicking (Bates) and Information Scent (Pirolli and
Card) and more social and collaborative aspects of information behavior such as Small Worlds (Chatman) and the Imposed query method (Gross, 1995). See graphic below:

**Figure 17 Information Behavior Models and the Activity Theory Framework**

Activity Theory is being used to study legal information behavior because it provides a simple and flexible conceptual framework which links social and individual levels of behavior. It also provides a robust framework for information behavior which can help to take into account many of the various aspects of legal information behavior which were the focus of prior studies within a broader context of information use. Jones, Chisalita and Veer (2005) note that “By defining research project as the (activity) unit of analysis, Jones develops contextual models of the information cycle of research and the
institutional information ecology. Jones uses activity theory as a lens to reveal information practices in the context of cognitive work of life sciences research.” (Jones, Chisalita, & Veer, 2005, p.73)

Activity Theory provides a broader perspective on the term “use.” The term “information use” from the perspective of Activity Theory means the use of the entire activity system, which includes both the user of the information artifact, the interactions within the activity system, and the use to which the information will ultimately be put. Much of how people actually use information is tacit and collaborative in nature. Activity Theory provides a different perspective for information science research that is neither User-Centered nor System Centered. Rather, it is USE-CENTERED.

In other words, information behavior exists in a praxis (which the Oxford English Dictionary notes can be translated as practice), or the space of “knowledge in action” (see Budd, 2002). This is a concept which was recognized as early as (Paisley, 1968, p. 2), when he commented, “Many user studies have concentrated on one small part of the total information system. As a result, in many studies, it is hard to glimpse a real scientist or technologist at work, under constraints and pressures, creating products, drawing upon the elaborate communication network that connects him with sources of necessary knowledge.” As much of Activity Theory’s explanatory power can come from the network (lines) represented in the AT matrix as the nodes (such as community or rules). Although Activity Theory has been used on its own in much in much information
systems research, it can also be seen as a natural extension of a rich tradition of information behavior research.

e) Activity Theory and Context

As has been noted, the issue of context has received much attention in IS research. From the perspective of Activity Theory, however, “contexts are activity systems” (Engeström, 1993). Roque and Almeida (2000) state that an activity is the “minimal meaningful context.” See also Kuutti (1996). They argue that “the object of Interaction Systems Design activity is an evolving target, and that designing artifacts is inseparable from designing the context or activity of use.” The interactions among the elements of the activity system provide a minimally meaningful context within which to consider information use. Lave (1993, p. 17) notes that there are various philosophical perspectives to the concept of context. The phenomenological perspective sees context as situated activity. Activity Theory, on the other hand, takes a historical perspective. Lave states “the central theoretical relation is historically constituted between persons engaged in “socioculturally constructed activity and the world in which they are engaged.” While situated theories look more at the immediate situation/ context, Activity Theory looks at the entire historical/developmental environment in which the activity takes place.

Activity Theory provides a structured approach to context and emphasizes the dynamic, non-linear aspects of information behavior. Basic information behavior decisions or moves may be followed through the Activity Theory matrix. It is an open system which
may lead to further activity systems. While the focus is often on one “Activity System,” you can have many interacting activity systems, with the object or outcome of one becoming a mediating artifact in another. See, for example, the image below:

Figure 18 Two interacting activity systems

Activity Theory provides a common terminology for examining aspects of information behavior. Jones (2005) describes Activity theory as a uniform framework, “common descriptive model.” Activity Theory is a useful information discovery tool for examining an individual’s information design process.

Solomon (2002, p. 251) suggests Activity Theory as a possible tool in a Discovering Information in Context Approach. He states that Activity Theory is theoretical, methodological, and analytical in nature:

Activity theory is theoretical in that it aims at an account of knowing and doing in some situation. It is methodological in that it provides a framework for viewing a situation. It is analytical in that it focuses

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attention on certain elements, such as agent, object, and community and their interactions, including instruments, rules and roles. (p. 251)

Solomon (2002, p. 251) points out that “As it emphasizes interactions to fit some task such as judging (Engeström, 1996), Activity Theory focuses attention on the struggles that agents, objects, and community go through to specify or shape what information is.” (p. 251)

Writers outside of the field of information behavior studies have also recognized the utility of using Activity Theory as a tool to shed light on the Sense-Making process. Shariq (1998), writing from a knowledge management perspective states that, “knowledge work is like a design process through which artifacts are ‘produced.’” (p. 17). He sets out several “fundamental premises,” regarding the nature of what he calls “knowledge work” (Shariq, 1998, p. 11):

- knowledge is a human activity
- human knowledge activity is driven by the need for sense making
- sense making takes place within a contextual framework
- context development takes place within a community or network.
- knowledge communities or networks are mediated by knowledge artifacts.

Shariq argues that “The activity theory framework can be used for analyzing the sense-making and knowledge management activity of the individuals and the organizations, respectively.” (p. 14)

In this study, Activity Theory is used as an information discovery tool, to examine the behaviors of clinic participants as they move through time and space to solve their information problems. It provides a structured perspective of behavior which includes people, their problems, their community, and the tools they use in a dynamic activity
system. In this study, context is seen as the sphere of activity in which the individual operates. It includes the work people do, the systems that they use, and the overall environment in which they actively solve information problems.
II. Methodology

This chapter presents the methodology for this study. The conceptual framework for this study is Solomon's Discovering Information in Context approach, which allows for multiple methods and perspectives in the study of information behavior. As part of this approach, Activity Theory was employed as a discovery tool to provide a holistic, empirical examination of the clinic information use environment. Spasser (2007) states that:

Methodologically, activity theory highlights the importance of specifying a research time-frame long enough to truly understand users' objectives and behaviour; studying broad, sufficiently contextualized patterns of behaviour; employing a varied, yet flexibly disciplined, set of data collection and analytic techniques whose selection is driven by the research question of interest; and understanding events, artifacts, and activity from users’ points of view...

This research focused on use of legal research tools by student research assistants in the law clinic. Understanding the information behaviors in the law clinic is the first step to informing improvements in legal information systems, instruction, and services.

Naturalistic methods (Denzin & Lincoln, 2000; Lincoln & Guba, 1985) were used to observe students in one of the law clinics at Villanova University School of Law. Chatman (1984) described such naturalistic methods as “field research.” She states that:

Field research is a generic term which includes methods of inquiry sometimes referred to as participant observation, ethnography, direct observation, and case studies. (p. 426)

Fidel (1993) states that “The qualitative approach offers the best methods for exploring human behavior.” (p. 222)
The legal domain is well suited to information behavior research. Lawyers are taught to reason, research, and communicate in a relatively uniform fashion. Law students have well-delineated levels of development (1L, 2L, 3L). Komlodi & Soergel (2002) note that “The domain of legal information can be defined by a limited set of content types, user types, and task types.” However, the individual situations and issues which must be researched vary widely.

Law student researchers were videotaped as they interacted with legal information systems. The overall context of use of those systems was observed through observation of clinic meetings combined with examination of documents in case files such as email communications, letters, and informal planning documents. It is appropriate to focus on the use of the tools by student attorneys because law clinics have traditionally been seen as laboratories for studying what lawyers do. (Menkel-Meadow, 1980) While it is not exactly the same as law practice, the clinic is as close as we can get to practice in the context of the law school.

**Group studied**

In this study, law school clinical professors and their student research assistants were observed in clinic meetings and as they interacted with electronic research systems such as Lexis and Westlaw. The choice of this research topic was influenced by the fact that the observer teaches legal research in an academic law school setting. I was thus relatively easily able to gain access to the research setting.
Students were observed in the natural setting in which they worked. Chatman (1984) notes that “The process of discovering new facts occurs through prolonged, personal contact with events in a natural setting...Direct observation, a technique of field investigation, allows the researcher to examine social phenomena as they are occurring.” (p. 426) Naturalistic observations help to provide rich insights into information behavior. Westbrook (1994) states that “When defined as a research paradigm rather than as a research method, naturalism is an approach that posits reality as holistic, and constantly changing so that theory formation becomes an ongoing process designed to understand such phenomena. As such, the naturalistic approach should provide much needed insights in to information seeking experiences.” (p. 242)

Purposive sampling was employed. The participant group consisted of law faculty and research assistants from the Farmworker Legal Aid Clinic at the Villanova University School of Law. The instructor for the clinic agreed to participate in the project. The observer was allowed to come to the first day's instruction and outline the project. Students were given the opportunity to opt-in to the project. The students who elected to participate were given informed consent forms.

Students in the Farmworker Legal Aid Clinic work in teams of two to represent people who are living and working in agricultural and agriculture-related settings throughout Pennsylvania, most of them in Chester County. Students represent farmworkers in a variety of legal matters to help their clients meet their basic needs. Students worked on various types of cases, which generally fall into the following categories:
workers' compensation claims for people who need long-term care for work-based injuries
housing related issues
wage claims
employment discrimination and immigration

Students were responsible for all clinic tasks, including:

- Client counseling and interviewing;
- Fact investigation;
- Legal research;
- Resolution of ethical issues;
- Case theory development; and
- Negotiation with opposing parties.

Eight students (four student teams) volunteered to participate in the study. Although they did research in service of indigent clients, the clients of the clinic were not the primary focus of the study, thus no vulnerable populations are involved in this study. There was no direct interaction between the investigator and the clinic clients. There was no remuneration of the participants. All participation was voluntary. Students were observed periodically during the summer and the fall semester of 2004. Follow up interviews were done with the students in the summer and fall of 2004 and the spring of 2005. Followup interviews were done with a second instructor in the spring of 2005 and with the original instructor in the fall of 2005 after she returned from maternity leave. The Clinic provided access to both print and electronic access to the case files for each team, subject to redaction/deidentification procedures.

**Trustworthiness**

Although the number of participants was small, as projected, multiple methods, including rich data gathered from videotaped interactions and qualitative field observations enhance
trustworthiness (validity). In this study, multiple methods were used to study the current situation, while interviews and writings on various aspects of the legal profession (such as how lawyers think, write, and research) were used to examine broader cultural and historical aspects of practice in the law clinic.

Fidel (1993) states that “Typically, in qualitative research, a project uses more than one method or technique of data collection. This characteristic is called methodological triangulation.” (p. 227) Sonnenwald and Wildemuth (2001) note that “Because these methods have both advantages and disadvantages, researchers in our field have begun to use two or more research methods within a study or across a series of studies to gain a more complete understanding of human information behavior.” (p.2) The client files, think-aloud online research sessions, and Lexis and Westlaw search histories were used to enrich the meeting field observation notes.

Role of the researcher

The role of researcher was more active, as fitting with the overall stance of a naturalistic approach. There is a range of roles that the qualitative researcher can play in any given study, in a spectrum from distant observer to involved participant. (Babbie, 2001, p. 278) Spasser (2002, p. 94) notes in his Activity Theory based evaluation of a digital library project, that he took on a combination of roles as participant observer (or observer participant). He states that:

both role variants facilitated the sort of unstructured interactive interviewing that makes possible the study of individual in their contingently configured casual contexts. In this way, data collection for research and for formative system evaluation happily coincided. (p. 94)
As the researcher is a staff member at the organization at which the study was conducted, an observer-participant role was undertaken. The researcher co-teaches a legal research session for the clinic students and was occasionally asked legal research questions during the course the observations.

**A. Data Collection**

The data collection occurred in four primary stages: 1) Videotaped observation of law school clinical students and research assistants in their weekly meetings with their instructor/supervisor; 2) videotaped think-aloud sessions as they interacted with electronic research systems such as Lexis and Westlaw (research logs from Lexis and Westlaw supplement the videotape, as available), 3) post-observation interviews (audiotaped) and 4) examination of client case file documents.

Initial meetings between students and the instructor were videotaped. General observations were done as students begin to research their problem to get a general feel for their research strategy and overall research path. For example, whether they started with tacit, informal sources such as experts or listservs or went directly to books, electronic resources, etc., was noted. Observations took place in clinic offices where the participants normally worked. The law clinic has two interview rooms with built in cameras. Students use the rooms regularly to meet, tape interviews with clients and do “mock interviews” and other evaluation exercises. As the meeting began, the camera was turned on. The session was recorded on VHS tape. The meeting rooms also include a television set where the students can see what is being recorded. So as not to interrupt
the flow of the meetings, a curtain was drawn over the television to avoid distraction on
the part of the students.

Extensive notes of meetings and research observation sessions were taken in addition to
videotapes. Chatman (1984, p. 426) states that: “In field research, the investigator records
phenomena by means of field notes which provide an ongoing, developmental record of
observations and impressions...” Written field notes were transcribed and given a
document number. Each document was provided a line number to facilitate coding (for
example, D1L5). Client letters were (A, J, etc.) were also added to facilitate reference.

Think-aloud protocols (see Ericsson, 1998; Ericsson & Simon, 1980, 1993) were also
employed as a method of data collection. Selected online search sessions were observed
during the course of the semester. The instructor arranged specific times with the students
to observe research sessions. At that point the investigator and the student would go to
the interview room, plug in a laptop, establish an internet connection, and observe the
research there. Students were asked to demonstrate how they would use the system to
solve the problem they were given. Students were urged to “think aloud” while
searching. Research logs from Lexis and Westlaw were collected to supplement the
observations, where available. Lexis and Westlaw search histories provide the search
query, the database searched, the documents viewed, as well as the time for each event.

For the purposes of privacy/confidentiality, redaction/deidentification procedures were
taken to remove references to clinic clients where possible. Client names were removed
from transcripts of meetings and research sessions and replaced with letters identifiers. Due to confidentiality requirements, transcripts of videotapes and audiotapes were analyzed. The standard informed consent form was administered.

Apart from students S1 and S2, who were observed during the summer, all other teams were observed during the fall of 2004. After the start of the project, the client's case files were made available to the observer. These files covered the entire life of the case, and thus made available materials before and after the time of the initial meeting and research observations. In particular, detailed memos on client and information contacts became a valuable resource in determining how a client problem was ultimately resolved.

**B. Data Analysis**

Wilson (2006) states that Activity Theory allows for multiple perspectives in the methods of examination of information behavior:

- both quantitative and qualitative methods can be applied and, indeed, for some work in information behaviour research, it may well be appropriate to use both: for example, carrying out relatively unstructured interviews and collecting computer log data for quantitative analysis.

Using Activity Theory as a methodological lens allows you to consider both individual as well as collective aspects of information behavior. Collins, Shukla, and Redmiles (2002, p.19) note that:

Engeström’s activity system model contributed to the efficiency and quality of the analysis. We were able to map the data from the interviews and observations directly to the elements and relationships between elements in the model. The seven elements of the model (subject,
mediating artifacts, object, rules, community, division of labor, outcome) were an efficient means of identifying fundamental parts of the activity system.

Individual perspectives such as mental models can be considered at the same time as more group and cultural perspectives.

The data was analyzed, looking for behaviors which may provide new insights into the legal information use environment. Solomon (2002) notes that in Activity Theory, “Data collection includes specifying the characteristics of elements and mapping their interactions (or lack thereof). Analysis focuses on what makes sense (i.e. smooth flow of events) or not (i.e., anomalies, conflicts), and how and why repairs and revisions are made.” With a discovery approach in mind, multiple approaches to data analysis were used to develop a rich description of the law clinic information use environment.

Four types of analyses were employed: 1) situating the activities of the clinic historically, looking for “tensions and contradictions” within the activity system 2) situating the activities observed in the clinic within a “web of activities” using the Activity Theory matrix 3) looking for “breakdown situations,” and 4) performing a theoretical analysis looking for aspects of the various theories and models which might “fit” the activities observed within the clinic. See graphic depicting the data collection and analysis phases below.
This methodology explores the immediate situation within a broader social and cultural context. As Cool (2001) notes, while there has been some overlap in usage of the terms situation and context, the term context is generally thought to embrace a broader notion than the immediate situation.

1. Situating the Clinic Historically

Bødker (1996) states that “To learn something about the present shape and use of an artifact, a historical analysis of the artifacts as well as of practice is important...” (p.150) Literature review and interviews of clinic instructors was used to “situate” the activities of the clinic in terms of how law and legal research are traditionally taught. The history of print and electronic legal research tools were also examined with the above
information to identify tensions and contradictions within the legal research process which may affect how legal researchers use search tools.

“Situating” historically also revealed potential tensions and contradictions within the activity system of the clinic, such as the tension between the individual search tradition and more collaborative methods of research. Bødker (1996) describes Engeström’s (1987) view of contradictions. She states that Engeström “bases his analysis on contradictions within the activity and between the activity and surrounding activities, since they constitute the basis of learning and change. He looks at contradictions in how tools, objects, and subjects are seen and suggests studying contradictions between, for example, the tools currently used and the object created or the norms that are part of practice and the division of work, showing how such an analysis may facilitate a change-oriented perspective on work.” (p. 151)

2. Situating the Clinic within a Web of Activities

Summaries of the cases were compiled with the assistance of the clinic instructor. Activities of the clinic were mapped to the Activity Theory matrix. Activity Theory was used as an information discovery tool to map clinic participants as they moved through time and space while solving an information problem. The Activity Triangle mapping was used to look for patterns in the information behavior with respect to type of source used (Delegation, Mediation, Community/Collaboration, Organizational Memory). A particularly vexing mapping issue was: where did organizational memory fit in the Activity Theory triangle mapping, as a mediating tool or as a function of community? Ultimately, it was interpreted as a mediating tool created as the product of prior activity
systems.

Figure 20 The Law Clinic As Activity System

Tables listing events in order were compiled created using the meeting transcripts, documents, and search histories. Full or partial texts of meeting minutes, searches, emails, and documents were included in the event table. The table functioned as a defacto timeline of events (names are redacted in the table below).
Table 1 Example of event table from Client A

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Search</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/30/04</td>
<td>Search</td>
<td>Search</td>
</tr>
<tr>
<td></td>
<td>Search - &quot;audit event rules&quot; (. DoDoc)</td>
<td>PA-RULES 9001/05/04-10-12 PM</td>
</tr>
<tr>
<td></td>
<td>Search - &quot;title 264&quot; (. DoDoc)</td>
<td>PA-RULES 9001/05/04-10-12 PM</td>
</tr>
<tr>
<td></td>
<td>Search - Find Document - PA ST ORPHAN ACT Rule 5.3</td>
<td>PA ST ORPHAN ACT Rule 5.3.R 04-10-12 PM</td>
</tr>
<tr>
<td></td>
<td>Search - DISTRICT JUSTICE AND JUDICIAL (.DoDoc)</td>
<td>PA-RULES 9001/05/04-10-12 PM</td>
</tr>
<tr>
<td></td>
<td>Search - District JUSTICE AND JUDICIAL (.DoDoc)</td>
<td>PA-RULES 9001/05/04-10-12 PM</td>
</tr>
</tbody>
</table>

Hey [redacted]

I just wanted to let you know that [redacted] I was able to visit Client A yesterday. There was some confusion in the morning as I was not aware of the name of Client A, was an. So he was allowed to be brought troubles. So after we visited him we met to CVS and brought him back the thing that he had requested.

Also, we went to his sister’s house and we able to get his report card and some pictures of Client A from the last few years. (Note: we put both of these in the file instead of handing them with Client A because we were not sure who they were supposed to go to. They were already from 1999, 2000, and 2004. His sister was not able to find the address book. (Note: when we sent Client A we asked him if he knew specifically who it was and he did not know. His sister and her husband were very friendly and willing to help when we needed. Additionally, his sister said that she believed that Client A was baptized in church Church. She said that there were multiple church names and therefore it may have been [redacted] but she was unsure that it would have been Saints Faiths.

Client A seemed in pretty good spirits. We started the conversation by telling him that we were not allowed to

The table also included transcripts of think-aloud sessions.

3. Coding/Operationalization

Chatman (1984, p. 427) states that “As field research data are analyzed, eventually patterns emerge, providing the researcher the means by which major themes are identified and hypotheses are formed.” Narrative summaries or “stories” of the clinic meetings and other activities were developed. Coding of data was done pursuant to an iterative cycle of literature review and data mapping, using categories developed from the Activity Theory matrix, such as “mediation,” “community/collaboration” and
“delegation,” as well as other themes which emerged during the course of the research, such as “tacit knowledge” and “organizational memory.” An example of some of the coding performed is in the table below. The categories in the table are operationalized as follows:

**Mediation**

The Oxford English Dictionary defines mediation as “intercession on behalf of another.”

The term mediation used in this study is more in the sense of “mediated cognition.” Stahl (2006) states that:

> This theory of social practice can be traced back to Lev Vygotsky. Vygotsky described what is distinctive to human cognition, psychological processes that are not simply biological abilities, as mediated cognition. He analyzed how both signs (words, gestures) and tools (instruments) act as artifacts that mediate human thought and behavior-- and he left the way open for other forms of mediation... (Stahl, 2006, p.15)

**Collaboration**

The Oxford English Dictionary defines collaboration as “United labor, co-operation.”

Stahl (2006) sees collaboration more as shared group cognition through collaborative knowledge building. He states that:

> In effective collaborative knowledge building, the group must engage in thinking together about a problem or task and produce a knowledge artifact such as a verbal problem clarification, a textual solution proposal, or a more developed theoretical instruction that integrates their different perspectives on the topic and represents a shared group result that they have negotiated. (Stahl, 2006, p. 3)
Collaborative knowledge building describes very well the process of legal theory construction in the clinic. Legal researchers may turn to mediating tools (the traditionally taught method) or people when solving legal problems or constructing legal theories.

**Organizational Memory**

Atwood, Olatokunbo, and Zimmerman (2002) note that there is no one definition of “organizational memory.” This study uses organizational memory in the general sense of the term, which Atwood, Olatokunbo & Zimmerman state as “concerned with being able to reuse an organization's experience.” In the setting of the law clinic, this includes both the print client files as well as shared network drives.

**Affective**

Affective in this study is seen in terms of Solomon (1997b). Solomon noted that affective signals of frustration, such as sighs and complaints, are key indicators of a breakdown situation. (p.1120) Kaptelinin & Nardi (2006), note that affective “power and passion” (p. 154) drives the choice of the path taken in any given Activity Theory matrix.

**Breakdowns**

Based upon the discussion in the literature review section, breakdowns are operationalized for this study as events where there is a conflict between what is expected to happen and what actually happens, or when a system (not necessarily an electronic one) is not working properly. The system is not working for the user in some manner. Several types of breakdowns were observed, which are characterized as “interface,” “lack
of awareness,” “conceptual,” and “organizational memory” (for example, having difficulty locating items in the client files).

**Tacit Information**

This study looks at tacit information in a manner similar to Stahl, who terms it as an unstated “pre-understanding.” Looking at tacit knowledge from perspective of situated cognition (Suchman, 1987), Stahl (2006) states that “The theory of situated cognition argues that only people’s tacit preunderstanding can make data meaningful in context.” (p.91) Stahl notes that

> Our situation is not reducible to our pre-understanding of it; it offers untold surprises, which may call for reflection, but which can only be discovered and comprehended thanks to our pre-understanding. Often, these surprise occasions signal breakdowns in our skillful, transparent behavior, although we can also make unexpected discoveries in the situation through conversation, exploration, natural events and other occurrences. (p.86)

Stahl continues that “A discovery breaks out of the pre-understood situation because it violates or goes beyond the network of tacit meanings that make up the pre-understanding of the situation.” (p.86)

To Stahl, tacit processes are the building blocks of knowledge. He states that:

> “Knowledge here is the interpretation of information as meaningful within the context of personal and/or group perspectives. Such interpretation by individuals is typically an automatic and tacit process of which people are not aware...This tacit and subjective personal opinion evolves into shared knowledge primarily through communication and
argumentation within groups...” (p. 110.) Exploring tacit aspects can help to shed light on more explicit phenomena. An example of coding is below:

Table 2 Example of Coding

<table>
<thead>
<tr>
<th>Organizational Memory</th>
<th>Collaboration</th>
<th>Mediation/Information Avoidance</th>
<th>Affective</th>
<th>Tacit Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensive use of client files to communicate research and facts of case.</td>
<td>Extensive use of experts known to students, faculty, or the Villanova community.</td>
<td>Law Library used as a last resort (information avoidance).</td>
<td>Expressions of frustration and relief.</td>
<td>Use of Tacit information</td>
</tr>
<tr>
<td>A7/24 – nurture PD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A8a/14 – INS does not play fair</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A12/52 – expert says more tradition than rule see</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone Call with Juvenile law center 11-24-04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J9/262 – never told something is discretionary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J20/30- court gives, ins takes away</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A25/124 – standoff (each side waiting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organizational Memory</strong></td>
<td><strong>Collaboration</strong></td>
<td><strong>Mediation/Information Avoidance</strong></td>
<td><strong>Affective Information</strong></td>
<td><strong>Tacit Information</strong></td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------</td>
<td>------------------------------------</td>
<td>---------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Extensive use of client files to communicate research and facts of case.</td>
<td>Extensive use of experts known to students, faculty, or the Villanova community.</td>
<td>Law Library used as a last resort (information avoidance).</td>
<td>Expressions of frustration and relief.</td>
<td>Use of Tacit information for the other to find something)</td>
</tr>
<tr>
<td>D13/11- &quot;The files are a mess!&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F14/45- &quot;looked at file quickly, but only found one brief&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F17/105- &quot;sure it [form] is in the file but have not found it</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H17/63 – Never found medical bill in file</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I14A/211 – Terminates search: &quot;don't think I can go on much further without knowing more about the facts.&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D27/145- side issues? (student created own file)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Student interview: got most of my information from the clinic library</td>
</tr>
<tr>
<td>Organizational Memory</td>
<td>Collaboration</td>
<td>Mediation/Information Avoidance</td>
<td>Affective</td>
<td>Tacit Information</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------</td>
<td>---------------------------------</td>
<td>-----------</td>
<td>------------------</td>
</tr>
<tr>
<td>Extensive use of client files to communicate research and facts of case.</td>
<td>Extensive use of experts known to students, faculty, or the Villanova community.</td>
<td>Law Library used as a last resort (information avoidance).</td>
<td>Expressions of frustration and relief.</td>
<td>Use of Tacit information</td>
</tr>
</tbody>
</table>

| A5/60 – book suggestion ignored |
| A5/132 – book suggestion ignored |
| Lexis/ Westlaw |
| B21/316 – call West customer support as a last resort |

**Analyzing Breakdown Situations**

The narratives and other data were examined for evidence of “breakdowns.” Particular attention was paid to affective signals such as displays of anger, sighs, and other indicators of frustration. (Solomon, 1997b, p. 1120) Bødker (1996) states “That artifacts are historical devices also means that artifacts-in-use are under more or less continuous reconstruction. Replacing one generation of technology with the next is perhaps the most dramatic example of such a change, but use changes also through the influence of other artifacts and through learning- that is, through the development of and breakdowns...” (p.
150) A “breakdown” in the context of this study basically means that the system is not working for the user in some manner. The “activity system” is seen as a broad unit that includes not only a particular information system, but the people, files, library and other resources which the clinic participants used to solve their information problems. The information behavior “moves” made by the students were mapped against the Activity Theory triangle to look for broad patterns of behavior. An example is below:

*By this time, S1 has tried several “mediating artifacts” such as various types of databases with no satisfactory result. It is becoming clear that he is facing some type of barrier, or breakdown situation.*

---

**Figure 21 Example of Summer Breakdown Analysis 1**
In the image above, multiple tries at using a mediating artifact were interpreted as a breakdown in the activity system. Breakdowns were also identified by statements of the participants at meetings, such as in the image below.

4. Theoretical Analysis

Data analysis was an iterative process. Westbrook (1994) states that “Because the purpose is to understand rather than to predict, qualitative research requires a cyclical approach in which the collection of data affects the analysis of the data which, in turn,
affects the gradual formation of theory which, in turn, affects the further collection of data.” (p. 245) Theoretical analysis was done to assist in identifying features and themes of the various information behavior theories which could “fit” when describing the activities within the law clinic. A table was created listing information behavior models, groups studied, group or individual focus, and how breakdowns were taken into account.

Table 3 Sample of Theory Analysis Table

<table>
<thead>
<tr>
<th>Methodology used</th>
<th>Groups studied</th>
<th>Theory based on</th>
<th>Definition of information need</th>
<th>Breakdown taken into account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental learning environment</td>
<td>Environmental learning environment</td>
<td>Information seeking</td>
<td>Individual, collaborative</td>
<td>Individual, collaborative</td>
</tr>
</tbody>
</table>

The use of multiple methods, including think-alouds, client documents, and naturalistic observation, help to achieve a rich “round” view of the legal information environment which can be used to improve design and evaluation methods for legal information systems and services.
III. Research Overview

This section provides overviews and examples of the information obtained from the observations, documents and other data. During the course of observation, the student teams handled ten clients, indicated by letter in the table below. The fact situation and "nickname" for the cases were provided by the clinic instructor:

Table 4 Client Fact Situations

<table>
<thead>
<tr>
<th>Client Letter</th>
<th>Fact Situation</th>
<th>&quot;Nickname&quot;</th>
<th>Student Team #/initial(gender)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A</td>
<td>Undocumented (Illegal) immigrant juvenile pled guilty to theft in Florida as an adult. Later accused of theft and rape in Pennsylvania. Trying to become classified as a dependent in Pennsylvania to avoid deportation by winning a Special Immigrant Juvenile Visa.</td>
<td>Juvenile Dependency Deportation Case</td>
<td>S1/B (male) &amp; S2/M (female) (Summer 2004) [think aloud] S3/A (male) &amp; S4/S (female) (Fall 2004)</td>
</tr>
<tr>
<td>2. B</td>
<td>Husband and wife immigrants did not speak English. Auto insurance/broker allowed an exclusion clause for wife even though she had just obtained a driver’s license. Wife had accident for which the insurance company refuses to pay. “Translator” for the couple also had limited English language skills.</td>
<td>Insurance Contract Case</td>
<td>S5/S (female) &amp; S6/L (female) [team think aloud]</td>
</tr>
</tbody>
</table>
3. C Employee injured. Went to doctor a couple of times, but soon stopped going. Was injured Feb 3rd. On Feb 22nd was fired. | Hurt Worker Firing Case | S5/S (female) & S6/L (female)
4. D Several issues:  
   1. Husband (RDV) – immigration issue. Just got green card and now wants to get rest of family naturalized. Tax issues (may have claimed earned income credit when not available to illegal immigrants).  
   2. Wife (MDV) - Wishes to become naturalized.  
   3. RDV wishes minor child to be naturalized. Minor child is disabled (suspected autistic).  
   4. RDV wishes minor child to be naturalized.  
   RDV’s and MDV’s apartment (near a candy factory) is being taken by the state of Pennsylvania by eminent domain. | (Family) Immigration Case | S5/S (female) & S6/L (female)
   Earned Income Credit Case  
   CS3 Factory Case  
   Disabled Minor Immigrant Case
6. F Client worked on a mushroom farm. Went to doc after a few months with a knee problem. Two doctor’s opinions. One said that the knee problem was cased by work. Another said not caused by work. Filled out a social security disability form but checked “not work related injury” box. Did not speak English. Did he understand what he was saying? | Mushroom Case | S7/M (female) & S8/J (female)
7. G Employment discrimination case. Minors from Mexico were harassed and physically abused on a | Employment Discrimination | S7/M (female) & S8/J (female)
<table>
<thead>
<tr>
<th>Case</th>
<th>[Think aloud]</th>
</tr>
</thead>
</table>

8. **H** Undocumented (illegal) worked for a company which set up Christmas decorations. On the way back from a job at an Indian resort and casino in Connecticut had a car accident on the highway. Client was injured. The employer called and said to stop saying you worked for us or I will call the INS (which the employer later did!).

**Christmas Car Accident Case**

S7/M (female) & S8/J (female)

9. **I** Employee injured by chicken shipment accident. Employer strung employee along and promised payment of doctor bills for injury until statute of limitations for workers’ compensation ran.

**Statute of Limitations Case**

S3/A (male) & S4/S (female)

[think aloud]

10. **J** Error in negotiation of worker’s compensation settlement. Judge awarded too much money. Trying to avoid a final judgment on appeal while the settlement is being worked out.

**Settlement Case**

S3/A (male) & S4/S (female)

[team think aloud]

The information use environment of the clinic was very collaborative in nature. Uses of legal information in the clinic were far more informal than initially expected. In the course of 10 different cases, over 100 experts were consulted. As might be expected, more experts were consulted or considered for the more complex cases such as Client A (over 40 experts consulted). A table listing experts from the Client A case are listed.
below. One attorney in particular was described by the head of the Farmworker Clinic as a “friend of the clinic.”

Table 5 Client A Experts

<table>
<thead>
<tr>
<th>Expert Letter/#</th>
<th>Organization</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Expert A</td>
<td>Local attorney</td>
<td>Client A</td>
</tr>
<tr>
<td>15. Expert O</td>
<td>[prior student]</td>
<td>Client A</td>
</tr>
<tr>
<td>21. Expert U</td>
<td>Public Defender</td>
<td>Client A</td>
</tr>
<tr>
<td>22. Expert V</td>
<td>head of Criminal Justice clinic</td>
<td>Client A</td>
</tr>
<tr>
<td>29. Expert DD</td>
<td>Family law attorney who directed the clinic while regular instructor was on maternity leave. The clinic instructor noted that “She is a good friend of the clinic. And does nothing but dependency cases…”</td>
<td>Client A</td>
</tr>
<tr>
<td>30. Expert EE</td>
<td>(Villanova Law Professor) expert on juvenile justice issues</td>
<td>Client A</td>
</tr>
<tr>
<td>33. Expert HH</td>
<td>(criminal law expert) Villanova Law Professor</td>
<td>Client A</td>
</tr>
<tr>
<td>36. Expert KK</td>
<td>works with the Defenders Association- has strong interest in juvenile cases</td>
<td>Client A</td>
</tr>
<tr>
<td>37. Expert LL</td>
<td>runs a group in a shelter whose specialty is special immigrant Juvenile visas</td>
<td>Client A</td>
</tr>
<tr>
<td>38. Expert MM</td>
<td>Philly PD- Juvenile Expert</td>
<td>Client A</td>
</tr>
<tr>
<td>39. NN</td>
<td>Prof. at Penn Law</td>
<td>Client A</td>
</tr>
<tr>
<td>40. OO</td>
<td>VLS Alum at Support Center for Child Advocates</td>
<td>Client A</td>
</tr>
<tr>
<td>41. PP</td>
<td>Juvenile Law Center</td>
<td>Client A</td>
</tr>
<tr>
<td>43. RR</td>
<td>Berks County Youth Center Shelter Caseworker</td>
<td>Client A</td>
</tr>
<tr>
<td>44. SS</td>
<td>Editorial Assistant, Marie Claire Magazine</td>
<td>Client A</td>
</tr>
<tr>
<td>45. TT</td>
<td>Northwest Immigration Rights Project (SIJ questions)</td>
<td>Client A</td>
</tr>
<tr>
<td>46. UU</td>
<td>Professor, Stetson Law</td>
<td>Client A</td>
</tr>
<tr>
<td>47. VV</td>
<td>US News and World Report</td>
<td>Client A</td>
</tr>
<tr>
<td>48. WW</td>
<td>Washington DC Law Firm</td>
<td>Client A</td>
</tr>
<tr>
<td>49. XX</td>
<td>Counsel, Northwest Immigration Rights Project (SIJ questions)</td>
<td>Client A</td>
</tr>
<tr>
<td>50. YY</td>
<td>Pro Bono Counsel from Local Law Firm</td>
<td>Client A</td>
</tr>
<tr>
<td>51. ZZ</td>
<td>Immigration Legal Resource Center (ILRC), Calif</td>
<td>Client A</td>
</tr>
<tr>
<td>52. AAA</td>
<td>Catholic Social Services</td>
<td>Client A</td>
</tr>
<tr>
<td>53. BBB</td>
<td>Immigration Court</td>
<td>Client A</td>
</tr>
<tr>
<td>54. CCC</td>
<td>Probation officer – _______ County court</td>
<td>Client A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>55. DDD</td>
<td>Local law firm</td>
<td>Client A</td>
</tr>
<tr>
<td>56. EEE</td>
<td>Deportation Office Phila</td>
<td>Client A</td>
</tr>
<tr>
<td>57. FFF</td>
<td>Children and Youth Svcs., _____ Co.</td>
<td>Client A</td>
</tr>
<tr>
<td>58. GGG</td>
<td>Juvenile Records, _____ County</td>
<td>Client A</td>
</tr>
<tr>
<td>59. HHH</td>
<td>_____ family law atty (Ref. by Expert DD)</td>
<td>Client A</td>
</tr>
<tr>
<td>60. III</td>
<td>NCC Collection Agency (Re: Fees)</td>
<td>Client A</td>
</tr>
<tr>
<td>61. JJJ</td>
<td>_____ Co. Court of Common Pleas</td>
<td>Client A</td>
</tr>
<tr>
<td>62. KKK</td>
<td>Children and Youth Svcs.</td>
<td>Client A</td>
</tr>
<tr>
<td>63. LLL</td>
<td>_____ Co. Children and Youth Services</td>
<td>Client A</td>
</tr>
<tr>
<td>64. MMM</td>
<td>_____ Co. Court of Common Pleas</td>
<td>Client A</td>
</tr>
<tr>
<td>65. NNN</td>
<td>Former Farmworker's Clinic student</td>
<td>Client A</td>
</tr>
<tr>
<td>66. OOO</td>
<td>Florida Public Defender’s office</td>
<td>Client A</td>
</tr>
<tr>
<td>67. PPP</td>
<td>Counselor (Case Worker) at _____ Co. Prison</td>
<td>Client A</td>
</tr>
<tr>
<td>68. QQQ</td>
<td>Prison Official— _____ Co. Prison</td>
<td>Client A</td>
</tr>
<tr>
<td>69. RRR</td>
<td>Prison Official— _____ Co. Prison</td>
<td>Client A</td>
</tr>
<tr>
<td>70. SSS</td>
<td>_____ Co. Courthouse</td>
<td>Client A</td>
</tr>
<tr>
<td>72. UUU</td>
<td>_____ County Court</td>
<td>Client A</td>
</tr>
<tr>
<td>73. VVV</td>
<td>Judge ______’s Clerk</td>
<td>Client A</td>
</tr>
<tr>
<td>74. WWW</td>
<td>Judge ______’s Secretary</td>
<td>Client A</td>
</tr>
<tr>
<td>76.YYY</td>
<td>Former law school career services staff – has experience with pro bono and public interest work</td>
<td>Client A</td>
</tr>
</tbody>
</table>

Results of observations consist of transcripts of meetings between team members, meetings with former students, and Lexis/Westlaw search sessions. Additional documentation such as emails and summaries of phone conversations were found in the client files.

**Team Meetings**

Many meetings consisted of the instructor and the two team members. Each team was assigned between two to four clients, depending upon the complexity of the situations. An example of this type of meeting is below. It is the first meeting with students 3 (A) and 4 (S), who worked on the Client A case (Juvenile Dependency Deportation Case)
during the fall semester. The instructor (abbreviated as B) provides an overview of the
new and continuing cases for the semester. Multiple clients were discussed at team
meetings:

Clinic meeting 9/1/04

S – Q- Where do we start?

Instructor – Goal – lets go through each case and make sure

**Client I - Statute of Limitations Case**

Instructor – Client I – hopeless case. Statute of limitation ran. But, can promise to do
research. Seems like a demanding person. Do a retainer that is very specific about what
we can and can’t do.

What she will get first is a counseling session and an opinion letter.

S – are we first ones looking at this in the clinic?

Instructor – Yes. Facts are so stark, I hope there is a way around the statute, but her
options are limited.

Instructor- Does it look like we have everything?

S- she send medical records and paystubs. We also have the intake sheet.

Instructor- need a full interview. Break down medical records into separate tabs. Put
together a timeline.

S- some things in medical records (like allergies) not related to the nature of the injury.

S- she was injured at work when she was run into by a cart of chickens. She inhaled
chicken blood.

The employer promised to pay for ambulance. Employer got her social security disability
until worker’s comp claim statute ran.

Instructor – Santeria!

S- suffering from depression

Instructor- in interview size up client as witness
Client A- Juvenile Dependency Deportation Case

S – we are really unsure on this case about the next step. Got a sad letter.
Instructor – a lot to this case and complicated

A- dependency and rape issues seem confused

Instructor- Split into two Client A files 1) immigration and 2) family. My priority is the family piece. We have done all we can do on the immigration issue. We have sent an opinion letter on the impact of rape charge on immigration statutes.

Meet with Expert O? [prior student- participated in summer]

Bottom line: plead as an adult to theft in Florida and it will stick.

We need fresh eyes and optimism to see if there is some way out.

Instructor- odd treatment in _____ family court. Don’t know all the law on it. Can’t get dependency in a criminal case.

Don’t know all the law on it.

Can’t get dependency in a criminal case- from expert

But we don’t know = a tough research problem.

How does criminal claims and facts that he is in detention impact his dependency request

Client A- still looking for his birth certificate. Does not understand that because he opted for adult status in Florida he is stuck forever?

A – can we attach what happened in Florida?

Instructor- Expert O [prior student] did research and that argument had been made before and failed. Key- judge and DA did not but this time they did.

Instructor– We need to talk to PD in Florida and Florida criminal law evidence. Ultimately – all we have is a humanitarian argument.

A – Are we positive the client was warned? [of the consequences of his status decision?]

Instructor – That is the linch pin. B (summer student S1) did not have time to fully explore it. It is worth following up in Florida.
If we could solve the Florida problem it would be a miracle.

In second to last letter, he asked for money. We can’t get money. Some things in the letters we can do and some we can’t.

S – Does his sister not speak to Client A any more?

Instructor- That’s right

S – how do we communicate with him in detention?

Instructor- Get secretaries to work it out. We can’t accept collect calls. Communicate by mail or visit.

Gives details for how to get into detention.

S- Can he use a phone card?

Instructor- hasn’t pushed secretaries on phone issue. Phone avoids a two hour drive.

We need to counsel him on what this means on his immigration status.

Failure means deportation and has no family in Columbia.

We got snookered by the local folks [personal dispute between student and CYS]. Suddenly the motion was “misfiled.” Was the original dependency petition misfiled? Contact the original student. She was painstaking and had a copy of the local rules.

A – Still trying to understand what happened first.

Instructor- handed over to INS. INS by chance sent him to the children’s DHS holding facility. We got case referred as a potential SIJ asylum case.

SIJ is a status that is given to unaccompanied immigrant minors in the US. Have to show no family in the country of origin and are unaccompanied here. Can then ask for SIJ status on the federal level. Then there are various bars. SIJ visa can then be shown as a defense against removal to Columbia.

Also asking for asylum. Especially w/situation in Columbia for juveniles.

But asylum has bars or good moral character/ discretionary grant.

DHS has very strict rules on what kids can be eligible to apply.

If kid= in custody of DHS have to get permission from DHS to go to the state to ask for dependency declaration to go back to feds to ask for the visa.
Key- sister
Obtain release to sister awaiting dependency (in school getting good grades) but then in February rape charges came. When get home from party brother in law says “what did you do? Being charged with rape!”

Then went out, stole a car, and ran away.

Even it get dependency, won’t get SIJ if have juvenile vs. adult process.

Even it gets out of state criminal charges going right back to DHS detention.

Basic process for removal is to detain while investigating removal proceedings.

Once back in DHS custody, we are out of the dependency process.

He is in ____country prison system because of criminal charges (which also happens to be the INS regional adult detention center!)

S – does he have bail? Why is he still there?

A – what is best case scenario.

If we find law that proves dependency status and beat one an adult always an adult issue, goes back to removal proceedings. Which are at this point scheduled for April. But that will never happen.

But then can apply for SIJ and show up w/ SIJ visa and quash removal proceedings.

A – what happened in Florida?

Instructor – We don’t have the transcriptions or anything. More can be done.

A – do we know if he was properly warned? Was it a conscious decision to be charges as an adult?

Instructor – talk to [initial student team, who handled the case when it first came to the clinic and had yet to graduate at this point, ed.] about what went on initially.

We worked on the fines, not on the once an adult always an adult issue.

____ DA at one point said on the record that Client A was a juvenile, but later claimed Client A was an adult.

criminal proceeding=a bar to dependency?
A – how deep should we get? Intro only or blow by blow?

[get legal research] – the client himself did legal research.

**Client J – Settlement Case**

A – just trying to agree on the money? Wrapup?

G- Need to figure out some of these documents.

Y – what were the facts?

S – client fellow between floorboards in the mushroom plant, hung upside down for half an hour. Had to get self out.

Instructor– was there a transfer memo? The whole drawer= his file.

Look on the J: drive

Instructor- Fired after injury because immigration papers expired. Company went bankrupt. Have tried to settle since Nov. 2003!

Client J wants lifetime care. Law provides for it. But in real life people are weaned off worker’s comp quickly (unless it is a case of death or dismemberment).

Won judgment that S was fired… but awarded too much. Other side to appeal.

Other side said would go forward with the settlement while appeals were pending.

Judge said in above case (employer1) he has recovered. But 2d piece to this case.

Comp claim against employer number two (conditions have since deteriorated).

Not a lot of legal research.

Negotiate and prepare for the hearing.

S – where is the court?

Instructor – an interesting issue. Bad clerk gave us the wrong room?

No notice of a hearing so we missed it!

Instructor – your mission – find out what the original problems was.
See how their appeal notice looks so much better than ours because we used samples from the CLEs.

Instructor- Employer 2- is shifting employees to a new work site. If judge says fully recovered, how does this related to giving notice?

S- has had a lot of employers, has gotten injured by keeps doing heavy physical labor which is the only work a guy with bad papers can get.

Maybe can say activities with employers aggravated previous injury (but how does that work?) if he was injured. Knew it. Why go to work for a stone company?

Instructor- Immigration issue.

He once had a green card. Got into criminal trouble. Deportation proceedings started. But immigration system departed him under the wrong name. As a result, no record of the criminal record in his INS file. But his green card has expired. Can he renew the green card eventually?

S-He was deportable, but never actually deported?

Instructor- Advised him that if he goes to an office to renew green card, he will be apprehended and the deportation reinstated under another name.

[legal research] can it happen? What is the risk?

[Camera off]

Instructor – Started work on who to do a case file? Anything you communicate to a court goes in.

=obviously legal research. A doctor told S that one day he will be in a wheelchair. S wants someone to take care of him. We give him $30,000. Can he do financial planning? Ask Expert P [prior student].

Q about Client A. Is this a discretionary issue?

Instructor-The law never says that something is discretionary. That is something that you always learn from practitioners.

Even in this first meeting is apparent that collaboration with experts was seen as an option for some cases more than others. The Client A case was a continuation from the
summer and the instructor acknowledges the prior work and that “fresh eyes” are needed as a satisfactory resolution has not yet been obtained. She mentions turning to an expert in the Client A case. However, the Client J case was in settlement phase (in fact, it was one of the longest-running cases in the history of the clinic) and was in more of a “wrap up” mode. The instructor specifically noted that “not a lot of legal research” was required for this case. All major research had been completed and the focus was more on the tactical details of securing the settlement agreement. However, at the end of the meeting, additional discussion indicated that more legal research was needed for Client J. The instructor often clearly indicated where she thought that formal “legal research” was needed. Client I was not seen as being likely to produce a positive outcome. In these and subsequent meetings the major focus of this team was the Client A Case. Even in this initial meeting the team touched upon the eventual solution of the case – following up on the Florida litigation and conviction. The instructor often discussed in each meeting more tacit, unwritten rules that govern law practice, such as “The law never says that something is discretionary.”

Meetings with prior students

Some meetings involved meetings between the current clinic students and the former clinic team members. In this situation, the former students were themselves seen as a type of expert. Clinic team members have been known to continue with cases past their course date and even beyond graduation. A transcript of this type of meeting is below. It is a meeting between one of the Client A summer student 1 (B), and the Client A fall students 3 (A) and 4 (S).
S- How do we contact Client A?

A- You visited his sister?

Instructor- Yes

A- Sister has disowned him. He wants US to apologize to the sister for him.

Instructor- Sister and her husband seem accessible. But don’t seem to want to have any contact with him.

S- Where do they live?

Instructor- Not very far. Easy to mapquest it!

Instructor- PD said welcome to get

A- did you deal more with the dependency issue or the sexual assault?

Instructor- Asked Expert A. He’ll go down for the car theft. Even if get dependency, can’t change his status (from adult to juvenile) because of his prior crimes. It’s in the transfer memo.

_____ county prosecutor’s office won’t deal with us.

S- What about CYS?

Instructor- Talked about it but did not do it. Lots of friction between them and us this semester.

A- Burned a few bridges hmm?

Instructor- They seem to have already decided against us. But it’s bad that they also hate us!

Instructor- Judge has to give permission before go to the courthouse to view the case records. Clerk is friendly, but gives a lot of non-answers. Don’t know what is going on because can’t look at files and can’t get a straight answer.

S- How cooperative was the public defender?

Instructor- He was really cool. Talked to me. Told me Client A is looking at least 5 years if he goes down for this car theft.

A- Did you go into the once and adult, always and adult issue? It seems like it is something the PD may not have time for.
A -did you find the case about lack of knowledge?

Instructor – He faxed his age. There is a Florida case that says if you do that you are estopped from changing your status. If it is not in the file it should be easy to find.

A- Instructor seemed to think it was a gray area exactly what happened in Florida.

Instructor-That’s right, we don’t know exactly what the PD know. The DHS will try anything, including lying about the kid’s age to expel him from the country.

S-Client does not understand proving he is a juvenile is not as important as he thinks it is.

S-What about the birth certificates?

Instructor- You have not gotten it yet? Time to worry…Do you know the facts of the case? They altered the birth certificate (sad the sister’s father was his father). Don’t know ether the alterations are on the physical original, the copies, what his name actually is, etc.

S- When should it have arrived?

Instructor- Middle of August. They said it would take a long time. The stamps are a long process. Our package got there in a week. But we did not get the tracking numbers for the return envelope we put in the box.

A- Follow up call needed?

Instructor-Probably

S- You said FOIA [Freedom of Information Act request for documents] was one of the most urgent things to do?

Instructor-Yes- I looked at the rules on retainers. Have to fill out a FOIA to get it. The way I read the rules even the client would have to do a FOIA to get it.

S- Did you to research on how criminal charges affect the dependency request?

Instructor- Yes, I spoke to experts about it. The expert said that it more is more tradition than an actual rule. But when I called back he was on vacation, so I could not follow up on that.

S-We got something—an initial...back from him.

A- He has a revised memo. So we can ask to look at it?
Instructor-Yes

A- Sounds like that will make our life easier.

S-You went to visit him [client]?

Instructor-Yes but we could not talk to him about his criminal case. Seemed like he was in better spirits.

S-Got another letter. Doesn’t seem to be doing so well.

Instructor- Apparently he got suicidal before.

S-When you go, just hang out?

Instructor- Yeah. Wanted money when I was wrapping up. Instructor wanted to be sure that violated no ethical rules. Didn’t see anything that expressly forbade it.

S- What could he buy in lockup?

Instructor- There is a commissary. My understanding is that he is in with other juveniles.

Instructor– We did a zip code search on his brother.

S&A – I didn’t know that!

Instructor- He [brother] lives in [deleted]. No response to client’s letter. I think it is more than an address problem. Don’t tell the client though, but it looks like the brother blew him off. Are you gonna do research on the criminal issue? [concerned about whether his research will stand up?]

S- Instructor seemed to think that we could do some supplemental research on it. Does the PD care about his real age?

Instructor- Probably not. The charges have both his real and his claimed age, and the fake ID date.

S- What bars him from entry?

Instructor- Everything he has done! The car theft alone is a

Chorus – “crime of moral turpitude!”

S-What would you do if you were us?

Instructor- Tell him it won’t work!
S-Do you think you researched pretty thoroughly?

S-If he is released tomorrow, HHS will pick him up and deport him.

Instructor- There is the convention against torture, but they just send a letter to Columbia saying “please don’t torture this kid.” Maybe you should go down to [county court] to see what is going on.

A- If they let us.

Instructor-Instructor may need to come down with you to look at the files.

Instructor-Our relationship with CYS is shot.

Probably should have called CYS first. If he gets convicted, can’t get SIJ status. Probably no plea deal because two victims.

S-Were you at the rape hearing.

A-Its one thing to read the memo, but what is your impression of what went on?

Instructor-Tried on two different occasions on the same night= counted as two different assaults. Plus an indecent touching on another girl! Sounds like they were all drunk at a party and it got out of control. At least “some” penetration occurred. It sounds like it could go either way to me. He could have been overly aggressive.

A-hate to question rape victims, but are these two girls friends, protecting each other maybe?

A- Guess that about wraps it up.

S- Instructor wants us to go and to explain the memo and counsel him on it.

A-the only thing we can counsel him on is the effect of the criminal case on the immigration.

S- How old is the sister?

Instructor-Late 20’s to mid 30s.

S-Speaks English?

Instructor-Need a translator

Instructor-Her husband speaks good English with an accent.
S-What was the husband like?
Instructor-Cool, but some tension there
S-What about these potential witnesses, should we trying to find them?
Instructor- PD’s Job
Instructor- I learned a lot because I had to research so much but it is tough to see the result you don’t want over and over again.

Once again, experts were often mentioned in the meetings between prior and former students. Expert consultation was mentioned as if it were an authoritative source.

**Think-alouds**

Think-aloud sessions were also conducted with the various teams. Most think-alouds were done with the students individually, although in a couple of cases the think-aloud was done as a team due to scheduling considerations. Although there were only a couple of instances to go on, it appeared that the interaction with the Lexis/Westlaw interface was more spontaneous when the think-aloud was done on a team basis. Below is a think-aloud transcript for an individual student, followed by a think-aloud for a team.

In this think-aloud, student 3 (A) is attempting to research a question presented at the first team meeting for Client A, on how a criminal charge affects a dependency proceeding. Because of prior work done he is already pessimistic about his chances of a positive result. The researcher had to urge the student to actually try and do the research online, as he was convinced by what he had heard from experts and prior students that he would probably not be able to find an answer using an online search:
The other students already did a lot of research on this issue so I don’t know what I am going to add to this.

Researching how a pending criminal charge affects a dependency proceeding… Assuming Pennsylvania state law… I don’t know… Is there anything I should be doing? You’re not going to tell me, are you?

Observer – Look for both primary and secondary sources, just like we taught in legal research. You never know, new journal articles and cases come out all the time, so you have to give searching a try.

A- OK – I will look for cases first, because that is the way I do things. Looking up PA-CS. Trying a natural language search. That did not work well.

Doing a terms and connectors search for criminal /s dependency.

Getting a lot of stuff with parent involvement w/ crim and dependency. But not a lot with the child. A lot of cases and procedure.

Basically, what I am trying to do is find a case that looks at all helpful and to the the key numbers and search from there.

What I will do now is search for dependency, find a case, and then tie into a more effective key number and find more information

[scrolling and browsing]

Just looking at the Keycite notes [headnotes?] at the top of the case to see if anything looks good.

I guess not. Guess I don’t know as much about dependency as I should. I have not dealt with it before. Let me read this case and see what it teaches me.

Let’s try dependency /s petition…actually I think I will put it in quotes to get them together and I will put an exclamation point after the petition.

Umm- Going to key number for dependency. Underneath it it says neglected delinquent or dependent child. I guess I will look at the broader heading to start with.

Got quite a few headnotes, will go through the headnotes and see if anything looks good.

This one is about using a criminal judgment in a subsequent criminal proceeding which is not what I want so I will go to the next one.
These headnotes seem to distinguish criminal proceedings from dependency proceedings which is not what I want…but actually, let me take a closer look at this.

This case says evidence from a juvenile case cannot be entered in a criminal case because of the absence of constitutional guarantees.

I guess we are looking at the opposite of that… constitutional guarantees present in the criminal case… going to move on, but keep it in the back of my mind…

These don’t look even remotely applicable… About juvenile crime but not about dependency…

[Scrolls]
Found a case that talks about…nah..never mind.

Let me start from scratch. This is too general about juvenile and crime.

Going back to original screen where did a key number digest search. Searching for criminal and dependency…Getting a lot of the same cases as before…a lot of information about parents and their criminal charges [ having an effect on a dependency determination]…but nothing about the criminal act of a child…

[scrolls] Going through the headnotes.

Ok, I have gone through all 73 headnotes and did not find anything…

Maybe I’ll try criminal w/2 dependency. Umm. [reading/skimming quickly]
This time the child and criminal should hopefully be closer together but that resulted in noting.

Let’s try w/4. Nope. Alright. I’m giving up on that.

Go to my research trail and go to my last case search.

Guess I’m a little frustrated because I know other people have looked for this and found absolutely noting. So I will go back to another case and see if I can get educated about it.

I will add dependency proceeding to my search. I will make it w/2.

OK it looks like a general use that says the state has an independent interest in making sure that juveniles become productive members of society.

Will look at the key notes quickly, or whatever they are called... Best interests of the child…standard of review [heavy sigh]…[scroll, heavy sigh].. here is a case that talks about the state interest…the state interest only arises when it is clear that the natural parents cannot or will not take care of the child. That is like our case in that the mother is
dead and the father is in Columbia somewhere. The keynote about health and morals of the child may be helpful...if I could, I would print and read this case.

I think I will get a pen [gets up to get a pen]...and scribble down some notes. I will write notes so I will have the cite and all of the applicable key numbers. Still don't necessarily care about the facts of this case because they probably do not help us.

[scrolls]

Case seems good. Lays out basic requirements, basic justifications, and spends some time defining the language that seems to come up.

Ok, kind of sick of doing this. Let me go back to KeyCite. Especially the one about protection of health and morals.

Maybe that's too broad of a search. Not too bad. 142 results [more tolerant of a large result set than student S4]. Now in most cited cases. Let me read the blurbs and see if there is anything that looks promising.

Since I’m kinda looking for general info on dependency...maybe a sympathetic argument..”strong state issue…” The headnotes are very specific to the facts of the case which don’t help me because I am looking for more general justification. I will have to read the cases for that.

How am I doing on time?

Don’t seem to be getting anywhere. Would generally quit and come back to it.

As far as how I would go about trying to find something factually applicable, If did not work, and I don’t know what to do I guess.

Back to the intro screen and PA-CS. Maybe I will try child! “criminal act!” And hope the judge using the same language I am using. w/s dependency. But I bet that it is too specific. Yep nothing.

Try again… nothing. Basically what I am trying to do is keep child and criminal act together and not deal with the parent’s criminal act.

Another search [nothing]

Another search. 32 hits= similar to another search I did.

Again, child and crime separated, so I am going to say w/2. One case.

[reads]

This has absolutely nothing for what I am looking for about nursing home abuse.
Lets try…Nothing!

Going to be honest. I guess I struck out.

Camera off

I have a message out to one of the experts. [Expert A, ed.]

In the case of this student, his initial pessimism about researching the Client A case online turned out to be a self-fulfilling prophecy. A later session where this same student worked with his teammate had a more positive tone. However, they were researching an issue for a different client (Client J). In this session the students used Westlaw.

Think Aloud 9-30-04 - Westlaw Search

S- Can there be an exacerbation of an injury that has been determined to be fully recovered?

A- Do you want me to do what I usually do? Researcher does not like what I do. She likes secondary sources. I go straight to the cases.

[types search: work! Comp* /p exacerbation and fully recovered]

A- Nothing. Ok, here’s the plan…

S – Maybe we can go into worker’s comp sites?

[A types search: “worker’s compensation”]

A-Nothing! What?

A- Let’s try a natural language search. I don’t want to fool around with this stuff.

[Went to keysearch? winds up at the custom digest screen. Added natural language search. Scrolls through headnotes]

A - Problem is that they probably don’t use the term exacerbation.

What about subsequent employer?
S- What about full recovery?
A - Should put it in quotes.

[looks at result]
Are you kidding me!
Nothing.
S- Why don’t we try “fully recovered?”
A- Fully recovered?
S- Yeah sure
S- Just looking at what we picked at the top. [looking at keysearch categories]
A- I chose the broadest category.

[Scrolls]
[gives up]
A - Let’s try some secondary sources. [goes to directory]
S- Let’s try law reviews.
[types search worker’s compensation]
S- Get rid of that thing! (referring to quote after worker)

[A tries search again, without the quote. Gets a results too many search results error message.]

[A tries another search]
A- Too general
S- Why not add exacerbation?

[A changes search]
S- 25
A- There you go!

[A reads summaries of articles]

S- What about that one! [points to article on exacerbation of preexisting conditions]

A- Its a law report. Right about now I would try to find an annotated statute, but I can’t do that online. [actually he can – observer]

What about this...[reads]

No, its an Iowa article about heart attacks.

A- Maybe search for a preexisting condition?

S- What about “post full recovery”

[A types search]

S- Are we in case law now?

A- Uhhuh

S- or, “workers compensation”

A- But we already tried that and full or fully recovered so adding post wouldn’t...let’s try worker’s compensation without the quote.

A- What do you think the most common word would be. Maybe recovered would be...

[A types]

A- Two! Here we go!

S- One is subrogation

A-The other is the same case. Nice.

[S reads aloud] Original

[A reads aloud] Back injury

A-Hm

S- This seems like a weird fact pattern.
A- Pennsylvania case

A- This stuff sounds familiar. Employee benefits. Hm..

S- Can you Shepardize it.

A- If I were using Lexis I could!

[goes back to citation list]

S- What is that here? [points to results plus display]

Scroll down. [A scrolls down]. Oh, What’s that? What about this?

A- Tell me which one you like. What about “obtaining worker’s compensation for back injuries.”

S- Ok

A- Only like what, 1000 pages! Here’s a mini index. “Aggravation of a back injury.” Yeah [reads]. Whoa! “Continuous or cumulative back conditions.”

S- There was a single event that caused this.

A- Is this an occupational disease now?

S- But the court said the client was “fully recovered.”

A- Oh, so this research is useless!

S- Maybe it is a new injury.

A- [reading from index] “cumulative injury found.” Ok.

But, this is all about having a pre-existing condition and getting into a big accident, rather than getting into an accident and then double dipping.

S- Back injury...

A- Maybe we should read this case.

S- Click on it!

[A clicks and reads] That’s our man!
S- Maybe there isn’t PA law on this.

A- This looks pretty good.

S- See if there are any headings on it that look good.


Let’s hit up most cited cases. [goes to a headnote and clicks on the most cited cases link]

[reads] Hm, these are all PA [cases]...

S- Yeah, when we went back, it took us back to PA

A - Well, I guess this is where we want to be!

S- Well we ever find our way back here?

[Seems to be unaware of the research trail option]

[Reads]

Oh, we are going to have problems because if there is a prior injury the current employer is not responsible.

A- And we already signed the release agreement?

S- Needs to be a new injury?

A- In real life I would start reading these cases and see where that got me.

[A goes back to custom digest. Reads]

Yeah. This sounds good.

[Scrolls through list] Write this down, “821 A2d 175, South Abington.”

S- [Looking at another case on the list] Boy, this looks bad. Write this down?

A- 2002 WL 1859027

S- This looks real bad.

A- What’s this, “aggravation of prior injury determined to be new injury...”
Huh...

If it is aggravation, one employer is responsible.

A- “Reliable foods - 660 A2d 162”. Got a yellow flag though. [Clicks on the flag to go to Keycite] Distinguished, NOT overruled.

S- Bad. “Where received benefits for first prior injury...”

A- No- can’t claim recurrence...unless...wait...another case says same exact thing, 27 A2d 287, Breath/Sigh

[scrolls]

I think that’s pretty much the good stuff.

[session ends]

Off tape.

Researcher to A - it seems as if you did a lot better working with a partner.

A- you get a better sense of validation about what you are doing.

At one point during the team think-aloud, one of the students indicates that he cannot look at an annotated statute online. In fact, this is possible to do on Lexis. However, this could be a type of breakdown due to the fact that the student was a habitual Westlaw user and was not familiar with all of the databases and features of that system. Overall however, the interaction between the students, each other and the interface was much more dynamic when they did the search as a team. It also appeared that there were no preconceived notions of the type of result they would get when they entered the session. The think-aloud transcripts in their entirety can be found in the Appendices.
Documents from client files

The transcripts and documents found in the client files were compiled into tables arranging selected portions of the materials in chronological order. A selected portion is below. This example is from the Client A case, from during the summer term:

Table 6 Sample from Client A Timeline Table

| From:     | S2                  |
| To:       | Instructor, S1      |
| Date:     | Friday June 11, 2004 5:13 PM |
| Subject:  | Criminal Defense Attorney |

Hey Instructor and S1,

I just called the ____ County Bar Association and they have a referral service. I told them that I did not want a referral, but rather just some names of attorneys. They gave me three names: [names deleted]

I also just spoke with Expert 76 to get her suggestions. She suggested getting the alumni information of attorneys in ____ county from [law school official]. She also said that [instructor] should ask for the info, because we will get it faster.

Once we have the information, Expert 76 suggested calling some of the attorneys and basically asking them who the top guys are. Again, this would be needed to be worded carefully and say that of course they are great too. I mentioned to Expert 76 the possibility of asking the DAs office in ____ county and she said ideally there would be an alumni at the DAs office that we could ask.

Doc 6 – Weekly Rounds 6/11/04

Transcript

The students noted that they were still trying to get Client A's birth certificate. The students expressed confusion that a public defender said that Client A was dependent while in an earlier conversation she said that he was not.

The instructor suggested calling an expert who had worked in the clinic before and dealt with family law matters on a regular basis.

S1 noted that in his research he found that “juvenile delinquent acts are not crimes.” However, the instructor noted that “asylum is a discretionary claim. The judge in his discretion may deny asylum based on any bad acts.”

Doc 7 – Weekly rounds
Transcript

The instructor asked S1 if he had looked up the issue on special immigrant juveniles.

S1 stated that:

The only thing I saw were requirements, but did not see anything specifically on the point of barring dependency. Most cases are about parents, etc. fighting dependency. It was hard to find cases where people want to be held dependent.

S2 (the other student on the team) asked “What is delinquency?”

S1 answered that it was “when a child commits a crime.” He was confused because “everything I saw was an argument that delinquency was grounds for dependency.”

The instructor asked both students to print and read “Memorandum #3 – field guidance on Special Immigrant Juvenile Status Petitions HQADN 70/23.”

S2 suggested seeing if a high-powered criminal lawyer in the area would be amenable to donating his or her time to the case.

Birth certificates, handwriting analysis, age progression experts, birthmarks, etc. were all discussed as means of definitively establishing Client A’s identity.

It has become apparent that in earlier litigation Client A lied about his age. The team begins to understand the significance of his earlier “adult” guilty plea. The instructor notes that “the Public Defender says that once convicted as an adult, the court has the discretion to try him as an adult.” She notes that this is another area in which legal research is needed.

S1 asked “how did we get this case?”

The instructor responded “for the Special Immigrant Juvenile piece, which looked so strong…”

Doc 8 – S2 Westlaw Think-aloud – 6/13/04

Transcript /

Since S1 did not find anything definitive during his Lexis and Westlaw searches, S2 does a search on the same issue:

We decided we would both follow up to make sure that we did not miss anything.

As did S1, S2 starts by looking at her meeting notes and making a statement of the issue to be researched: “researching the effect of incarceration on dependency.”

She types the search incarceration and dependency, but cannot pin down the context.
She winds up with cases about incarcerated parents who are trying to keep custody of their kids, even when she tries to narrow her search by adding Pennsylvania.

One case does look promising,\textsuperscript{7} which talks about the Juvenile Act of 1972. She decides to follow the hypertext link to the fulltext of the act. Thinking back to the referring case, she notes that

The finding in this case was that the juvenile did not fit into the dependency categories of the act, but was still found dependent in part upon the mother's failure to control the child.

S2 tries a search in the Allcases database (the most comprehensive case law database available) with the searches “incarceration and dependency” and “incarceration of juvenile and dependency.” Once again, she has problems retrieving terms within the appropriate context.

Um, lots of this stuff is dealing with juvenile, but going into different areas than what I am looking at. The first is about being in a women's prison than in a male prison and arguing that it is not age appropriate…most of what is pulled up is on incarcerated parent. That does not apply to what I am looking for….

A lot of these dependency cases talk about drug or alcohol dependency…That is not what I am looking for….

There's a case that's looking at dependency and legal guardianship. Actually, it is a California case, but looking at it for background would be helpful….  

This does not seem to be too helpful because the child was taken away from parents who was seen as unfit and they were righting to regain custody…

There's a case here called Yu v. Brown, which is about special immigrant juveniles which I need to learn more about…Actually, in this case, this is not helping very much. This case is about issues further down the line on the proceedings. This case is not as helpful to me.

Finally, S2 begins to look at some of the secondary sources suggested by the Results Plus listings. One of the sources she looked at was the legal encyclopedia, American Jurisprudence 2d\textsuperscript{8} section on dependent or neglected children. Once again, the result was not very helpful:

The beginning is all dealing with negligence which is not a claim on my case.

Something interesting here. Paternal grandparents claimed child. But the child was

\textsuperscript{7} In Interest of J.R. 648 A2d 28.  
\textsuperscript{8} AM JUR Juvenilect §54
declared dependent because they were not legal guardians.

This case would not be good for us. The case says if the child is receiving proper care or supervision he cannot be declared dependent. But maybe client A is in jail we can argue that his is not receiving proper care…

Following hypertext links to statutes and Pennsylvania Jurisprudence⁹ also fails to find on point caselaw. Finally she begins to realize that:

Part of the issue is that the issue I am researching is so fact specific that there will be little case law on it.

As the focus of the clinic shifted to more individual and client meetings no additional meetings were observed over the summer.

<table>
<thead>
<tr>
<th>Letter to Client A</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have found a case that should give you some encouragement on your charges. Your defense attorney will know about it, but we thought you would like to read it. The case is Commonwealth v. Kelley, 801 A.2d 551 (Pa. 2002).¹⁰ [The instructor] thinks that they may have a law library at your facility. The charges against you are still serious, but maybe not as bad as they seem.</td>
</tr>
</tbody>
</table>

A combination of meeting transcripts, think-alouds, and documents from the client file help to provide a rich picture of the types of interactions that occurred both between team members and with the various sources used to do legal research, be it technological or social.

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⁹ PAJUR FAMLAW §14:6
¹⁰ See Appendix A for text of case.
IV. Analysis-
The Information Use Environment –
Situating the Farmworker Clinic

The first research question revolves around gaining a general understanding of the clinic activities both as they are presently constituted and in an historical context. Historically, law clinics can be traced back to the old apprentice system for training lawyers, which was gradually brought to an end by the case method of instruction introduced at Harvard Law School in the 1870's. In 1893, the University of Pennsylvania established a law club called “Dispensary” which helped people who were too poor to retain legal counsel. Other such groups organized at various law schools, and in 1913 Harvard established a “Legal Aid Bureau.” The first full “in-house” law school clinic was established at Duke University in 1931. During the 1960's and 1970's grants funded the establishment of many law school clinics. Currently most American law schools include law clinics as part of their curriculum.11

Villanova University School of Law offers clinical programs in which students can practice their advocacy skills, a Farmworker Legal Aid Clinic, a Civil Justice Clinic, a Federal Tax Clinic, and an Asylum and Refugee Services Clinic. About 30 percent of the student body is taught through the clinical program each year. The following is from the clinic's five year report:

The mission of the clinical program is: 1) to help law students become reflective, ethical, creative, zealous, and justifiably confident advocates who value pro bono and public interest work, and 2) to express publicly, through service and scholarship, the Law School's commitment to serving the poor and disenfranchised members of the community through promoting social justice and the common good. Indeed, dedicated action for social justice is central to our mission as a Catholic and Augustinian academic community and the work of our Clinical Program is inspired by St. Thomas of Villanova's recognition that ‘The Lord hears the cry of the poor.’

Each clinic is headed by a tenure-track professor, who oversees roughly ten students as well as a research assistant. The head of the Farmworker Clinic participated in the study. Students enroll for one semester, and receive six graded credits. Students are expected to expend 24-48 hours per week, roughly 14 of them in case work. Students in the Farmworker Legal Aid Clinic work in teams of two to represent people who are living and working in agricultural and agriculture-related settings throughout Pennsylvania, most of them in Kennett Square (Chester County).

Formal class times with the fourteen students runs for an average of three hours each week with additional sessions scheduled toward the beginning of the semester. The class covers traditional lawyering course topics such as legal research, case planning, interviewing, case theory development, counseling, fact investigation, ethics, negotiation, and trial advocacy. In addition, substantive law is taught in a Farmworker law and policy overview, which included topics such as immigration law, worker's compensation law, wage and hour law, and employment discrimination law. Two legal research sessions are given which are taught by librarians (one of whom was the researcher for this project). The first session being a general overview while the second is geared specifically towards
the issues for the various teams. Class time is also devoted to weekly meetings known as “case rounds.”

The Farmworker clinic helps primarily migrant families in areas such as landlord tenant law and worker's compensation. A Congressional Research Service report\textsuperscript{12} states:

“Farmworkers then, tend to be minorities (often Hispanic). Large numbers are also illegal aliens. This combination tends to make the migrant farmworker population vulnerable to exploitation.”

The clinic is as close to practice as we get in the law school. An interview with the farmworker clinic instructor indicated that it gets fairly close to practice in terms of the actual activities involved, but there are differences. She indicates that:

Of course, students do not have the same level of experience as many practicing attorneys. The caseload is much lighter in the clinic environment, and there is much greater accessibility to the supervising attorney than there would probably be in actual practice. Although legal research is a large component of the activities of the clinic students, there are differences between clinical instructors as to their role in the teaching of legal research and in how much teaching of legal research should be done in the clinic context. There are two basic schools of thought, which could be divided as directed or non-directed. Some clinical instructors provide more direction for their students, while other clinical instructors provide less. There are three basic modes of clinical teaching: formal lecture, supervision, and “lawyering” seminar.

The clinic instructor could probably be placed into the more “directed” law clinic instruction category. The instructor emphasized the importance of social contacts and experts in law practice.

1. The Clinic as Legal Activity System

Students work in teams of two. Each team handles between one and four cases. The Clinic five year report notes that “our basic requirements for a prospective client are that s/he is indigent, lives in a non-urban area, and presents a pegagogically valuable case that we can competently handle.” The farmworker clinic has a fairly flat organizational structure, with the clinic instructor working closely with the student teams and an administrative assistant who was also a paralegal.

According to the clinic five year report, students represent farmworkers in a variety of legal matters to help their clients meet their basic needs. Case types include workers’ compensation claims for people who need long-term care for work-based injuries, housing related issues, wage claims, employment discrimination and immigration. Cases are referred to the clinic from a variety of sources including Friends of Farmworkers, La Comunidad Hispana, the Pennsylvania Immigration Resource Center, the Philadelphia Legal Assistance Farmworker Law Project, local churches, and word of mouth.

Clinical teams perform almost all the functions of a practicing litigation attorney. Students interview their clients, develop case theories, conduct research, draft legal documents, and represent their clients before legal tribunals. A typical clinic case would start with an intake form being filled out by the administrative assistant/paralegal. The
paralegal used a program called Kemp’s Caseworks,¹³ which was designed specifically for legal services and pro bono organizations.

Documents created for the clinic include formal court filings such as briefs and motions, as well as internal strategic documents such as case plans and transfer documents. A transfer memo, as the name suggests, summarizes the work of the student team for the semester and provides directions for the next team of students to explore in continuing the case. Transfer memos are informal planning documents. A caseplan is a statement of the legal theory underpinning the case, the strategies the attorney wishes to explore and a listing of the major legal authorities which will be relied upon. It is an informal, internal planning document. Caseplans and transfer memos are a major use of legal research information. Much of the legal information researched in the clinic was used for informal strategic purposes (transfer memos, strategy sessions, and caseplans), rather than for formal memos and briefs. Writing these informal or formal documents were often a major objective or sub-objective of the clinic participants. An Activity Theory mapping of a generic clinic task is below:

¹³ Kemps Caseworks (http://www.kempscaseworks.com/) is a knowledge management system developed especially for organizations who serve low-income clients, which tracks intake and other case information in order to do conflict of interest checking and statistics. See their “History and Future of Case Management in Legal Services” article at http://www.kempscaseworks.com/About/aboutsubCMHistory.htm
In the case of the clinic, an instructor (subject), or her student research assistants if she delegates the issue (through the division of labor), may wish to answer a legal question (object) in order to write a court brief, caseplan, transfer memo, or other document (outcome). They may use artifacts such as books or electronic databases. They may consult more informal, tacit sources of information such as experts and listservs during the course of their research. They are aware of both written and unwritten rules as to fairness, such as avoiding conflict of interests (associating with parties from the opposing side) and maintaining client confidentiality and privacy.

In the clinic legal activity system, the outcome or objective can then become a mediating tool that is used by other clinic students in research the same or other problems. For
example, a transfer memo which provides guidance to the successor clinic team, would be placed in the client files and itself become a valuable source of information. See image below:

**Client File Artifacts:** Court brief, Caseplan, Transfer Memo, etc.

The outcome of one Activity System can become the mediating tools of another. In the case of the clinic, documents written for the client files, such as briefs and caseplans, can themselves become valuable sources of information.

**Figure 24** The outcome of one Activity System can become the mediating tool of another.

According to the five year report, because farmworkers are extremely isolated, education and trust building are key components of lawyering for this community. Therefore, each student team spends at least two half-days traveling to a work camp to participate in know-your-rights outreach presentations. Most student teams work with Spanish-speaking clients and manage non-traditional offsite client consultation settings. Students
represent farmworkers in a variety of legal matters, including issues of immigration, workers’ compensation, and criminal law.

The research assistants used a wide variety of information resources when designing legal documents including more formal primary sources such as cases, statutes, regulations, as well as secondary sources (books, journals, etc.) and more informal sources such as listservs, telephone interviews with experts and with opposing counsel, and email requests for expert help. Items of interest were routinely routed by the clinic instructor.

Students used the information obtained for a variety of purposes both formal and informal, such as briefs filed with the court, court forms, and background for strategy meetings. One student noted that a lot of the tasks he engaged in did not require substantive “research” of the type we teach in law school - to support the writing of an appellate brief, for example. Many of the activities he engaged in were more “transactional” in nature, such as filling out forms and writing letters.

Several requests for expert help were in the area of court procedures and rules, as when the students for Client A were having difficulty obtaining access to the file for the ____ County Court. Clinic practitioners used the case files to communicate with instructors, student partners and later students. It was common practice in the clinic to refer to forms and other documents on a shared network drive which had been written or collected by prior students and previously vetted by the clinic instructor. The instructor often directed
students to look first to documents on this shared drive, such as a sample retainer agreement and a medical authorization form.

The legal information found was often used quite informally in documents such as transfer memos (outgoing student summarizes the case and the work done to that point for later students to read), caseplans (outlines of the legal theories and strategies to be used in the case) and in strategy meetings where legal theories were formulated.

As a conceptual framework, Activity Theory is more geared to understanding and description. Activity Theory allows consideration of the broader contexts of information use as well as the individual. For example, the broader contexts of tool use include the history of the development of the artifact itself, the practices of the specific setting in which the artifact is used (such as the legal clinic), the culture and issues of the migrant farmworkers the clinic assists, how the interface fits into the development of modern print legal research tools and the traditional legal research processes, and how attorneys are taught to reason, research, and communicate. Situating an artifact historically means to consider the many cultures which may thrive in a given community.

2. Situating the Clinic Historically- Tensions and Contradictions

There are several tensions and contradictions in the areas of legal education, publication, and research that have an impact on how legal researchers use the various legal information sources at their disposal. There is no official definition of the practice of
law. There is a proposed ABA Model rule of professional conduct specifically prohibits
the unauthorized practice of law. However there is no official definition of what the
practice of law is. The Federal Trade Commission states that “Defining the practice of
law has been a difficult question for the legal profession for many years...The boundaries
of the practice of law are unclear and have been prone to vary over time and
geography.”

However, lawyers often discuss what they do in daily practice under the general rubric of
“lawyering.” The MacCrate Report on Legal Education defined lawyering skills in terms
of problem solving, legal analysis and reasoning, legal research, factual investigation,
communication, counseling, negotiation, litigation, and alternative dispute resolution
procedures, organization and management of legal work and recognizing and resolving
ethical dilemmas. (MacCrate, 1992, p.135)

Blasi (1995) looks at lawyering from a more theoretical perspective, and discusses the
application of lawyering theory to clinical education. He states that studying the
lawyering process was an early goal of the clinical legal education movement:

As Carrie Menkel- Meadow wrote in 1980, “The developing clinical legal
education movement has been concerned with the central question: ‘What
is it that lawyers do?’...Menkel-Meadow identified in the contemporary
clinical literature studies defining the central work of the lawyer as
‘decision-maker, advisor, fact developer, advocate, friend, investigator,
and organizer.’… (p. 327)

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14 http://www.abanet.org/rppt/section_info/upl/home.html
15 See FTC comments on the American Bar Association's Proposed Model Definition of the Practice of law.
   http://www.abanet.org/rppt/section_info/upl/FTCreProposedModelDefinition.pdf
As some have stated, much of the law is about managing relationships. It has always involved strong social elements. Paul Maharg (2007) states that “what these and other questions concerning legal education have in common is that they operate within a specific context and structure…” (p.1) Quoting Leont’ev, he notes that human activity cannot be considered apart from social relationships.

**a) Attorney Cognition**

There are few studies specifically on the cognitive functioning of attorneys. Clarence Morris wrote about the thought processes of lawyers in a 1937 classic, “How Lawyers Think.” Morris (1937) describes an interactive thought pattern where lawyers try to continuously fit the facts of their particular situation to the law:

> So in the lawyer’s working day he is constantly involved in an interplay between emerging facts and constructed theories. The facts which are recited initially suggest theories, which when amplified and modified by thought and work suggest further inquires concerning facts, which again suggest amplification and modifications of theories. The alternating process continues until a solution is recognized and acted on. In the interplay, acceptable statements of relevant theories are hoarded: facts without relevance are discarded until the solution (sometimes, of course, false) emerges. No fact is significant without theory, no theory is relevant without facts. (p. 36)

Morris (1937) seems to describe a design-oriented view of the lawyer’s work when he notes that, “The lawyer often starts with the conclusion his client wishes, rather than with general principles. In practice, no one is likely to start thinking with highly generalized propositions.” (p. 42)

Mitchell (1980) summarized the thinking of over twenty law faculty at the University of Puget Sound law school about “why we can do what we do with such ease while our students struggle?” He notes that:

> As legal ‘experts,’ we approach legal problems with a great deal of ‘domain-based’ knowledge. We possess a vast array of information about
law and its processes: legal vocabulary; cases; use of analogies; characteristic ‘patterns’ or ‘moves’ in reasoning; relationships between bodies of doctrine, along with awareness of general principles and issues that cut across such bodies; procedures for approaching problems; knowledge of conventions controlling what can or cannot be said. Our ‘knowledge base,’ more than any unique cognitive capacities we possess, provides us with an effective framework (i.e., schema) for approaching and analyzing problems. Entering law students (‘novices’), however, have no such knowledge base (although they may well possess a different expert knowledge base- e.g., as engineers, mathematicians, etc.) Accordingly they are not capable of approaching legal problems in the manner that is second nature to those of us in the ‘knowledge community’ or ‘domain’ of law. (Mitchell, 1989, p.278-279)

Colon-Navarro (1996-97) notes that in the clinical environment “students benefit by having experienced instructors model lawyering skills and by being allowed to practice these skills in a monitored environment.” (p. 112) He notes that students who graduate from clinical programs have a practical experience not taught in the traditional law school classroom. Colon-Navarro also cites to the novice-expert differences literature of cognitive science.16 (p. 114) As a test, he presented hypothetical problems to expert and novice attorneys. Colon-Navarro concluded that:

From all of these observations we can see that, as predicted, the expert attorneys had an organizational system with structure and procedural knowledge that allowed them to apply the relevant factual information to the problem to be solved. They recognized several ‘schemas’ from which they were able to determine several possible solutions to the immigration problems presented by the client and then they applied the appropriate problem solving strategy. The experts looked at the facts… and quickly extracted only relevant aspects, leading to the correct diagnosis. The novices that had in some way applied their schooling to real life situations through the clinical program also made the correct diagnosis, although they felt the need to confer with an experienced attorney to confirm their diagnosis. (Colon-Navarro, 1996-97, p. 132-133)

16 See, for example, (Wiedenbeck, 1985).
Blasi (1995) explored the nature of lawyering expertise from the perspective of the cognitive paradigm. Although Blasi focuses on the cognitive, he admits that “the purely cognitive apparatus of individual lawyers is obviously to a very large extent socially constructed.” (p. 320) Blasi states “plainly a large proportion of problem-solving occurs in a different context: in firms and in teams of lawyers engaged in larger-scale tasks. Many problems are simply beyond the capacity of any single lawyer. Corporations call on the problem-solving resources not of individual lawyers, but of entire firms or groups of firms.” (p. 393)


Sutton states that “attorney mental models is cast in the form of a visual metaphor or event space …” (Sutton, 1994, p.189) In essence, what lawyers do is build a conceptual space or information space (Boisot, 1995; Brookes, 1980b; Newby, 2001) in which to navigate to make strategic and creative decisions. The process begins in the first year in law school and continues throughout the life of the attorney. These mental models are formed by way of the uniform methods in which lawyers in the United States are trained:
the case method of legal instruction, which began in the 1870’s at Harvard with its law dean, Christopher Columbus Langdell.

Sutton describes the case method as follows:

This method requires the reading of hundreds of loosely related legal cases designed to reveal the various facets of the subject matter under consideration without explicitly framing their overall context. The student is given the task of synthesizing these facets (as well as the cases embodying them) into a coherent picture of the law for purposes of understanding, communication and argument. Through this year-long exercise, the student learns the fundamental processes of legal method as well as how to “think like a lawyer.” (Sutton, 1994, p. 188)

The case method of legal instruction from its inception has been intertwined with the print medium. Schön, in his book *The Reflective Practitioner*, noted that Langdell argued “first, law is a science and secondly...available materials of that science are contained in printed books.” (Schön, 1983, p. 28-89) The Carnegie Foundation Report, *Educating Lawyers, Preparation for the Profession of Law* (2007) notes that

The curriculum at most schools follows a fairly standard pattern. The juris doctor (JD) degree is the typical credential offered, requiring three years of full-time or four years of part-time study. The school sponsored clinics, moot court competition, supervised practice trials and law journals give the students who participate opportunities to practice the legal skills of working with clients, conducting appellate arguments, and research and writing. (Carnegie Report, p.4)

Paul Duguid, in his article, “The Social Life of Legal Information,” notes the challenges that law schools face in balancing teaching “about” and teaching “to be.” He looks at law schools in terms of communities of practice, and notes that “law schools, libraries, and universities are complex systems, not simply information containers and conduits.”
(Duguid, 2002). For more viewpoints on attorney cognition, see Amsel, et.al. (1991) Gantt (2006) and Gionfriddo (2007).

In sum, the first year of law school is geared towards teaching the law student an extremely specialized set of skills, to prepare the student to read cases for a specific set of purposes. Law students in their substantive and writing courses are trained in various methods of interpretation of legal text. Ramsfield (2000) argues that the law should be approached in terms of design. She states that “We can design as architects do: by interviewing clients, understanding the products they have in mind, and designing structures accordingly” (Ramsfield, 2000, p. xvii). Much of what lawyers do is defined by traditions and cultures that they are reluctant to abandon (Ramsfield, 2000). Ramsfield states that the law student must “…combine the context, history, conventions, and norms of your situation” (Ramsfield, 2007, p7), an approach which has echoes of Activity Theory.
V. Analysis - Breakdowns and information behavior in the law clinic

The second research question asks about what breakdowns tell us about information behavior in the law clinic. In a design study for a knowledge management system for attorneys, Sutton (1991) stated that attorneys tend to specialize in two basic types of legal activity

(1) the structuring of transactions, and (2) litigation. When an attorney is engaged in transactional work, the principle concern is the structuring of relationships among people in a manner which precludes, to the greatest extent possible, future legal conflicts stemming from those relationships. The principle sorts of transactional work include the writing of contracts, formation of business entities, the drafting of wills and the general structuring of commercial transactions. Litigation, on the other hand, is concerned with existing legal conflicts, many of which may find their source in failed relationships of the sort just discussed. While many attorneys specialize in one sub-domain or the other, most large firm practices involve a mixture of activities drawn from both sub-domains...

(p. 8)

While many existing databases are litigation oriented, finding legal forms and other litigation support materials remains a challenging task for legal practitioners and lay persons alike. Advances have been made by newer knowledge management based software such as WestKM and Lexis Total Search which search the content of firm document management systems (DMS) to reuse firm documents. Other knowledge management/litigation support software such as Abacuslaw, Amicus Attorney, Prolaw, and Summation are also gaining in popularity in law practice. However, many legal
workplaces, such as the clinic make minimal use of knowledge management software or make no use of it at all.

The clinic activities observed were largely litigation-oriented, where students wrote formal documents to be filed with the courts, such as briefs and motions. However, much of the student tasks involved more “transactional” types of activities, such as finding and filling out forms. Breakdowns revealed much about the transactional and litigation nature of the clinic tasks. Breakdowns were operationalized for this study as events where there is a conflict between what is expected to happen and what actually happens. In a breakdown situation, the system is not working for the user in some manner. Several types of breakdowns were observed, which are characterized as “interface,” “lack of awareness,” “conceptual,” and “organizational memory.” Breakdowns also tell us of the intensely collaborative nature of the clinic, the importance of organizational memory, and the importance of the use of tacit information in clinic practice.

Few breakdowns actually had to do with the actual search interfaces themselves. However, one student trying to use the “find” command in Westlaw to retrieve a document wound up going to Google, getting a cite, and then going back to Westlaw. Most “interface” breakdowns tended to center on the students’ ability to conceptualize the problem in generating search statements. They simply did not know which search terms to use or which questions to ask. Breakdowns also often occurred due to a lack of awareness (or unwillingness to consult) alternative databases such as secondary sources. Some of these types of “lack of awareness” breakdowns came from one student who used
Lexis which he said he was less familiar with. There seemed to be very strong system preferences (Lexis versus Westlaw). Several times students noted that they did not even know what their password was in the non-preferred system. Far more prevalent than breakdowns with respect to the user interface were problems which arose because of a lack of understanding of the fact situation, the legal theory involved, or what the ultimate use of strategy for the information was going to be.

Breakdowns tell us several things about the nature of legal information behavior in the clinic, including that there were three general research strategies at work in the clinic - mediation, collaboration, and mixed mediation/collaboration. Students seemed to take one of the three as a legal research strategy approach. Only in the most simple tasks was mediation alone used (for example, looking up a definition in a book or a database). Usually some type of mixed method was employed. Some students started in a mediation mode and switched to collaboration after a breakdown occurred. Others started in a more collaboration mode and switched to mediation upon encountering a breakdown.

For the students who relied heavily on collaborative research techniques, it seemed as if they were trying to stay as close to their personal sphere as possible. If the student could not solve the problem with their individual memory, then they tried organizational memory artifacts such as the client files. If that did not provide a resolution they then tried the collective memory of their small world of “friends of the clinic.” Only if none of these provided a satisfactory answer did they try databases and the library (and usually their local “bookshelf library” at that).
One team of students noted in a follow up interview that the sources used depended upon the topic area:

\[ S3 - \text{It depended on what the subject was. For worker's comp, it was like looking in the books and reading the cases and the rules, and it kind of made sense. Did we talk with any experts for that?} \]

\[ S4 - \text{No.} \]

In other words, they chose sources according to what “made sense” at the time. If the books “made sense” they used them (although S3 and S4 clarified that when they said “library” they meant the local clinic bookshelves). If the books did not “make sense,” they talked to experts.

**A. Breakdowns reveal the importance of organizational memory**

Breakdowns reveal the importance of organizational memory in the clinic. In the clinic, many issues are not starting from scratch. There are often notes from what was done before or after by other students. The client files in the clinic were used to communicate research results to instructors, partners/team members and later students. This is in line with Komlodi and Soergel (2002, p. 217) who noted that “Attorneys keep large amounts of paper files, including research files that contain records of searches executed and documents used.” The clinic students frequently consulted the client files when attempting to solve legal issues. Komlodi (2002, p. 221) states that “It is often quicker to go to their personal research files than going to a database. Their research files also
reflect their personal history with the topic, it is in a way a personal database on the
topic.”

There seemed to be as many information retrieval issues with what could be called case
history other documents in the current client file or earlier cases as with the more formal
Lexis and Westlaw searches. Several breakdowns occurred which had to do not with
formal research sources, but with the clinic's own filing system. Breakdown situations
showed that the clinic team members would try to rely on memory first for a solution to
their problem. They would refer either to their own individual memory or organizational
memory/ knowledge management tools (the main example being the client files).

In one case, when the students were directed to write a retainer letter, the instructor told
them to review the ones in the file for an example. The instructor later asked:

   Instructor: "what research exists?"

   Student: "There is a lot in the file. We have not gotten to it yet."

Particular frustration would be expressed when they could not find information that they
believed should be in the files. Several students complained about not being able to find
anything in the files, and a couple of students even kept their own “side files” so they
could more easily find things. In one instance, a student noted that “this is a very
daunting file!” Another student noted that “the research folder is useless!” In some
cases the documentation in the file folders were incomplete. A student noted that she
“checked the file but there was only one brief!”
Students seemed to be unable to find an efficient way to annotate the cases they found online for the benefit of later readers. They did not use the built-in history annotation feature in Westlaw, for example. This resonates with studies which note the importance of annotation (Marshall et. al., 2001), and search history support tools (Komlodi, 2002; Komlodi & Soergel, 2002) in legal research.

While the students could probably decipher their annotation strategies themselves, later students were left in the dark due to the cryptic nature of the markings. The students in this study simply jotted down cites in the research sessions, and then placed a stack of (mostly) unmarked documents in the research file. The rare instances of annotation in the research file often consisted of highlighting or underlining.

![Figure 25 Example annotation: Highlighting](image-url)
CHAPTER 8
RELIEF FROM REMOVAL

A person seeking relief from removal may have several forms of relief available to her. These forms of relief include voluntary departure, cancellation of removal (formerly suspension and INA §212(c)), adjustment of status, political asylum/withholding of deportation, waiver of deportation under INA §241(a)(1)(H), 8 U.S.C. §1251(a)(1)(H), nunc pro tunc permission to reapply after deportation, estoppel, a collateral attack on a previous deportation order, deferred action, waiver of inadmissibility on entry under INA §§212(g), (h), (i), 8 U.S.C. §§1182(g), (h), (i), and private legislation. These forms of relief have been substantially narrowed under IIRIRA. See INA §§212(h), 212(i), 240A and 240B.

Figure 26 Example annotation: Underlining

In the majority of instances, there was no annotation at all.

Figure 27 Example: No Annotation
In the case of one client (the family immigration case), this was problematic, as several issues were involved, yet the research files were not divided by issue. The students later noted that the research files were the only files which were unregulated by the clinic instructors and staff. More oversight of the research files, including the requirement of ‘research memos’ and additional annotation, was later instituted.

One student had to terminate an online search session in order to consult the case file and become more comfortable with the facts of her case. Part of the think-aloud session transcript (from the Statute of Limitations Case) is related below:

Here’s one from 2003. These cases might be helpful if I knew the facts of our cases more clearly. I think that if the employer makes payment, statute starts to run when those payments stop. I think in our case promises of payment were made, but she paid from her own pocket expecting reimbursement.

Some of the cases on my … are coming up in this case.

[Looks at Harley Davidson v. worker’s comp appeal board]

I should note a question – did the employer pay any worker’s comp related expenses?

I don’t think our employer paid a dime of his own money.

Just looking through the annotations [paper] to see if there are any cases I want to look at.

I will go to get a document, and type in this case and see what happens.

That is actually one I already looked at. [Harrity v. Workmen’s Compensation Appeal Board]

[reads and marks through printout of annotated code]

On some of these, I need to go to the file to see what happened. I don’t think I can go much further without knowing more about the facts.
This helped. I think I need to go get some more fact gathering.

The result of the lack of organization and annotation in the research files was that a team might have to repeat research steps. An examination of the research files showed many instances of where items were duplicated. As the files were added to sequentially, the students would not look back very far to find relevant material. After the study the research files were regulated and students were asked to write research memos to the file to annotate any items added to the research file.
B. Breakdowns reveal the collaborative nature of the clinic

Breakdowns also reveal the intensely collaborative nature of the Farmworker clinic.

Whether it was due to teaching styles, learning styles (Witkin, Moore, Goodenough, & Cox, 1977), searching styles (see Fidel, 1984, 1991; Ford, Wilson, Foster, Ellis, & Spink, 2002) or some other factor, large numbers of experts both within and outside of the law school, were called upon to help resolve legal issues. The instructor reminded students to “make sure you are transferring all of the information about these people into the contact sheet.” The contact sheet was part of the “Activity File” and was heavily annotated with memos and notes about information obtained from people about the case. While the research files were minimally annotated, conversations with experts and other contacts were exhaustively detailed.

Example of contact memo:

MEMORANDUM

To: Instructor
From: S5
Date: 10/14/04
Re: Meeting with Expert FF

S6 and I met with Expert FF yesterday to discuss immigration options for the Client D family, as well as how to get RDV proof of his LPR status. Expert FF explained to us that RDV does not need a receipt number and that he will not be getting one because that is a number that people get when they go through the service. However, RDV went through the DOJ. She told us that when RDV went to the District Office, he must not have gone to District Counsel and instead he must have went to an immigration officer which is why they told him he needed to have a receipt number. If he would have went to DC, they would have been able to look up his information with his A number.
We mentioned that RDV has been waiting for a packet in order to go and get his passport stamped. Expert FF is not sure what packet he is waiting for. She mentioned that maybe he was waiting for an I-102 to get his I-94 (evidence of his relief being granted) or that he could be waiting for information to file for his green card. However, Expert FF said that he should not have had to file for either of these.

Expert FF discussed what our next steps would be to get RDV’s passport stamped. She told us to go to the removal office to get his passport stamped. We need to call the office at 215-000-0000 and confirm that he can get his passport stamped. She also sent an email to the local AILA chapter asking how we can get proof of LPR status after an application for cancellation of removal has been approved.

We also discussed the options for how to get LPR status for the rest of the family. Expert FF did not think it was a good idea to put them into removal proceedings because of the consequences, especially if they do not have an independent basis for their own removal. She did say that RDV should file I-130s now for his wife and the children. All he needs to file this is proof of his LPR status, and although we do not have proof yet, she said we should file anyway and we can always send the proof later if CIS asks for it. Currently, petitions that were submitted in September of 1997 are being approved, therefore, there is about a 6 year wait for approval for the 2a category (where spouses and children under 21 fall). With this being the average wait time, the youngest son will be over 21 and their daughter may be 21 before their petitions will be approved which means that they then drop into the 2b category and the wait time increases by 7 years or so. However, after 5 years, RDV can become a citizen and once he is a citizen, his wife and the children will automatically get status.

It looks like our best option with the family is to have RDV file the I-130s to get that process started. And once his 5 years are up, have him file for citizenship (which he can do 3 months before his 5 year anniversary), and then get the family status that way, since they most likely will still be waiting for their petitions to be approved.

Sometimes collaboration was the only solution to the problem, as when the “answer” was actually an unwritten rule of culture and tradition rather than anything explicitly written down. However, at times collaboration, when used as the sole research strategy, resulted
in less than desired results, or worse, in acrimony from the “experts” with whom the students were trying to collaborate. See the memo below for an example.

1. Example: Over-reliance on collaboration?

Memorandum

To: Instructor
From: S6________
Date: October 21, 2004
Re: Phone call with Expert 85

I talked to Immigration Attorney Expert 85 who had responded to Professor Expert FF’s email on the AILA forum. He started by confirming that RDV had obtained cancellation this summer. I said yes and that we were under the impression that he had legal residency meanwhile we are still waiting for proof of residency. Earlier, when I called to talk to him (he had called me back when I talked to him at this point), he said that the AILA meeting he went to two days ago was helpful. So I asked about the meeting.

Expert 88 was a little rude at first. He asked me whether the order was appealed, and I told him that to my knowledge it was not. He asked me how I made that assumption, and I tried to explain to him that I was assigned the case in August with the understanding that the judge’s order meant that he was a legal resident. I had a limited knowledge of immigration law. Again, he asked if it was appealed or not, and I said it was not to my understanding. He said that he was asking me to do some “intelligent legal analysis” and I told him that I was not trying to avoid it, but I did not understand what he was asking. All we wanted to know was what the process was after cancellation because we had received mixed messages about what to do so that RDV could obtain proof of his status. I told him that some people said there were extra security checks and others that said that it is automatic. He asked me who told us this information and I said the examinations unit in the Philadelphia office and other attorneys on the AILA forum. I told him that I was away from the file at the clinic so I could not tell him more about the case than what I had already.

After this tense point in the conversation, he lightened up a little bit. He told me that assuming the order was not appealed (which I am almost positive from the file that it was not), there is a class action in Northern California that related to our client. He took my email and was sending me the case. He thought that we might want to add our client to
the class action. He told me to contact someone involved. He told me several times that under the law, §1304(e), legal aliens must carry indicia of residency at all times. Therefore, by not giving our clients a 551-I stamp or a green card, the government was preventing legal aliens from complying with the laws. In addition to the class action, we could write Expert 88 or Expert 91 using this provision, but we would probably not get a response. He told me that I should learn the immigration laws, but that immigration attorneys use the Acts while the judges use the Code. Expert 85 indicated that Expert 88 did not like to be told what to do and Expert 91 is just overwhelmed with these issues. However, we might be able to be a little tougher on either officer because we would not have to deal with them in the future (unlike Expert 85). He indicated that another option would be to file a writ of mandamus ordering the district court to give RDV proof of his residency. However, all of these options involve time.

Expert 85 also told me that the “additional security check” is a bureaucratic waste and all of the checks are done before the judge decides the case. I also reconfirmed that cancellation meant that RDV was a legal resident. Expert 85 told me that under § 245(1)(b), cancellation means that the Attorney General grants permanent residency (adjustment to residency) so we are correct in believing that RDV is a legal resident.

Experts used included instructors at Villanova Law School, members of local farmworker advocacy groups, psychologists, judges and immigration practitioners. Some of the experts were used multiple times for different cases. At some points, even the observer was viewed as an expert by the clinic students and instructors. The focus on the use of experts was so strong that even when looking at a secondary source, such as a journal article, one team of students saw it not so much as a source of information in and of itself, but as a referral to contact the author as a source of expert information. In one instance, a student thought the topic would be tough to research, “so we have just been asking people.” After a time, even other students were perceived as experts. Current clinic students met with past clinic students to get their advice on future research.
In one case, there was a dispute over whether an insurance agent should have made sure that the clinic clients understood an insurance contract even though the clients brought their own interpreter to the meeting with the agent. The current students (S5 & S6) met with the prior team (M & K) who spoke with them about the issues of the case. The prior students promptly began pointing out items of interest in the files, including contact information:

*The prior students noted “never searched whether could sue insurance company because they knew they were selling insurance policies where there was not a meeting of the minds.”*

*M noted "clearly the wife had a driver's license but it says on the insurance policy that she does not."

*M asks whether the new students had read the transfer memo. “Not sure…” S5 replies.

*K notes that the couple are undocumented aliens: “Who will the jury believe, Client B or the insurance agent, because the agent is white and seems in charge.”

*M notes that “taking the race element out of it, Client B doesn't even remember signing the document.”

*After more discussion about meeting with the client to clear up the facts, M admits that he thinks “it might be a frivolous lawsuit. Don't think there is any negligent misrepresentation”"

*M begins pointing out particular items of interest to the students from the files: “see this article liability of insurance sales professional for errors in sales and omissions. This is the guy. If anyone knows what to do, he knows what to do.”

*K notes that a chart should be in the file they did about who they could sue or not sue and why.

*S5 sighs, “I guess I just need to sort things out. I am so confused.”*
K sympathizes, “it is confusing because Client B can't remember anything so the facts are just a guess. I would call [an expert]... the guy can't read, no meeting of the minds exists. No meeting of the minds, no contract.”

“Hope we have given you more questions than answers!” M wraps up.

The students in this case (S5 and S6) both seemed to be more wedded to collaboration. They pursued collaboration to the extent that even when specific items in the file were pointed out to them, such as a paper written by an expert, they relied on talking to the expert himself as opposed to reading the material. They did try to find out who cited the article in a think aloud session, but by the weekly meeting, S5 and S6 still had not read the article suggested by the prior students:

S5 and S6 report that they met with the prior students last week, and noted the experts that M and K recommended. In particular, they noted that one of them was the author of an article which had been placed in the research file for the case: “He is the author of a good article we found on the issue.”

The instructor reminds them to “make sure you are transferring all of the information about these people into the contact sheet”

S5 notes that they “used the article when searching with [observer] to look at cases that he cited. One case in his article was very bad for us”

“One case was unpublished.” S6 pointed out.

“I guess we will read the article before we talk to him on Wednesday!” S5 states.

“Yeah I guess,” S6 replies.

It should also be noted that the heavy use of experts may have been an offshoot of the teaching philosophy of that particular instructor. Due to the time constraints involved with clinic cases, at meetings the clinical instructor was likely to first mention names of people she knew who could answer the question quickly. In fact, a couple of students
admitted to me “off the record” that if I were not around, they would not have done much formal research at all. Legal research was very specifically identified, and by some students was treated as a course of action to pursue only as a last option. In one case, a student wanted to ask the Public Defender and find out “right now.” The Farmworker clinic instructor noted that she relies more heavily on experts that some of the other clinical instructors.

One of the other clinic instructors noted that she placed less emphasis on collaborative sources of information and more emphasis on the traditional hierarchy of authorities in teaching clinical research. She noted that:

I have the students do the research themselves and come to me and formulate a reasonable approach about why they do what they do. I know in other clinics they do a lot of talking to experts. I don’t do a lot of that. Students often don’t know enough about the question to use an expert most effectively. They may not know the facts of the case well, or may not understand the legal terms or the legal theories enough to provide a narrowly focused enough question that would result in a helpful answer. And if the students have not done enough research prior to questioning the expert, he may be irritated…How do you know, especially if you are a beginner, that what the expert is telling you is right?…How people find and use information shapes everything we do here.

One should not think that the focus in the Farmworker clinic was solely collaborative. Instead, the students seemed to switch between more collaborative and less collaborative forms of research as they encountered barriers and their research problems evolved. Generally, search strategies that started with more formal sources and later moved on to a more collaborative stance were generally more successful than those that relied upon collaboration alone.
C. Breakdowns reveal the tacit nature of some types of legal information

Other types of breakdowns had to do with the tacit nature of the information sought. The instructor often imparted knowledge that was more tacit in nature, along the lines of “this is what the law says but in fact this is what actually happens.” Tacit information could be passed along either by the instructor or by one of the experts sought out by clinic students. In one of the memo examples above, for example, an expert noted that:

*Expert 85 also told me that the “additional security check” is a bureaucratic waste and all of the checks are done before the judge decides the case. I also reconfirmed that cancellation meant that RDV was a legal resident. Expert 85 told me that under § 245(1)(b), cancellation means that the Attorney General grants permanent residency (adjustment to residency) so we are correct in believing that RDV is a legal resident.*

Because there is no official pronouncement on what the “practice of law” entails, much of what the young attorney learns is tacit in nature. Stahl (2006) writes about the tacit nature of understanding, and that it largely cannot be represented by computers. (p. 85) Looking at tacit knowledge from perspective of situated cognition (Suchman, 1987), Stahl states that “The theory of situated cognition argues that only people’s tacit preunderstanding can make data meaningful in context.” (p.91) Gasson (2005) states that:

*Tacit knowledge is equated with know-how: knowledge that we acquire through our experience of acting in the world...Much tacit knowledge is embedded in the actor’s understanding of the situation in which it is produced. It is difficult to reify and ‘transfer’ this knowledge without social interaction and apprenticeship-type learning (Buckland, 1991; Lave & Wenger, 1991).*
Law is very situational and contextual in nature. The law is very driven by the individual fact situation, and the process of distinguishing or analogizing similar cases (Sutton, 1994). Thus there is a heavier reliance on informal sources of information than is initially apparent. Ramsfield (2000, p.2) states that,

> legal writing is its own art. It is a highly contextualized, practical, artistic act. It is performed under constantly changing circumstances, where clients change their minds, decision-makers shift policy, and the law itself changes. As a legal writer, your thinking evolves and your reader’s expectations rise. Time is of the essence, and technology inserts a series of learning curves into the recursive circle of writing. Researching methods shift: the explosion of new statutes, regulations, and decisions require complex techniques for sifting and quick learning.

In fact, the practice of law could be said to be a state of constant learning. The explicit rules (cases, statutes, regulations) which make up the bulk of legal information retrieval and artificial intelligence systems are only the tip of the iceberg of what the attorney uses to resolve a legal issue.

One case in particular, which will be looked at in some detail, was researched online by several different students, each with negative results. They had been told by an expert that a certain outcome was “more tradition than an actual rule,” and it that was eventually accepted as the outcome since no evidence to the contrary could be found. The information given by experts was sometimes given even greater weight than the online search results. Because of information one student received from an expert prior to her search, she felt she “could not get too excited” about a result on Lexis, even though it was more positive than what the expert indicated that she would find.
D. Breakdowns show how research objectives can evolve and change over time.

Engeström (1995) states that “Activities are not short-lived events or actions that have a temporally clear-cut beginning and end. They are systems that produce events and actions and evolve over lengthy periods of sociohistorical time.” (p.331) Breakdowns also showed in one particular case how the research objective evolved and changed over time.

In the case of Client A, a juvenile which the INS/USCIS wanted to deport to Bogota Columbia because of an attempted rape charge, the initial goal was to find out the effect of the arrest and criminal charge on his application for “Special Immigrant Juvenile” (SIJ) status with the INS/USCIS. In particular the instructor wanted to know whether the charge would disqualify the client for that status.

It was thought that would be the primary focus of the case. However, as time passed, new information was obtained about the case and new complexities emerged. It was later found that the client had pled guilty to a theft charge in another state as an adult. The focus then changed to vacating the guilty plea. That shift in focus can be seen in the transfer memo. Once the focus of the research changed, many of the breakdowns involved finding and contacting the Public Defender who was involved in the case in the
other state.\textsuperscript{17} Since the clinic was a semester course, the student was not able to continue to pursue the new line of research. However, it was pursued by the team of students in the next semester.

\textit{E. What do you do when there is no law? Client A’s Story.}

To provide an example of the problem solving processes of legal novices in a complex situation, a narrative of one of the clients (client A) will be presented. The instructor noted that the case of client A was one of the most complex which the clinic students had ever faced. In the case of client A, we were essentially presented with a situation in which there was no law. It is in the absence of law that you can more clearly see the lawyer’s problem solving process at work. This could be said to be a type of “gap” or “situation movement state” mentioned in Dervin's 1983 overview of Sense-Making research as a “Spinout - not having a road.”

Presented below is a depiction of the events over a roughly 10 week time span, for one client. The depiction is compiled from summaries of meeting transcripts, search histories, think-aloud transcripts, and documents from the client files. Documents have been redacted as necessary to protect client confidentiality. Two sets of students worked on the Client A case during the observation period. The first group - the summer students S1 and S2, started with a mediation strategy, using mediating tools or artifacts such as

\textsuperscript{17} [Note- later students did pursue the matter and were able to vacate the guilty plea in the Spring of 2007- thus paving the way for the juvenile to obtain Special Immigrant Juvenile status and stay in the US.]
books or databases. The second group - the fall students S3 and S4 focused more on collaboration, largely due to a breakdown in finding search results over the summer. As it turned out in this situation, a collaborative approach was more helpful in resolving the issue.

The events are interspersed with charts depicting the research “moves”\textsuperscript{18} made by the students and instructor with respect to the Activity Theory triangle. Using the Activity Theory triangle shows that the students seemed to take one of three research paths as they tried to make sense of their issue.: 1) a mixed mediation/collaboration strategy starting with mediation and then turning to collaboration when that did not work; 2) mixed collaboration/mediation strategy which started with collaboration and then turned to mediation when that did not work, or 3) a mediation only strategy. The mediation only strategy worked with the more simple, concrete tasks (e.g. “what are the elements of assault”). The more complex the issue, the more likely the students were to turn to collaborative techniques to resolve it. The remainder of this chapter will provide examples from each of these strategies.

The paths that the team for each Client took through the research process varied considerably with the complexity and length of each case. Some cases were resolved relatively quickly, or, were being mopped up at the tail end of the litigation/negotiation process. Others ran for years. The Client A case was one of the longer-running ones, as it began in 2003 and has not been resolved as of the Spring 2008 term.

\hfill

\textsuperscript{18} For earlier research on search moves, see (Bates, 1979; Fidel, 1985; Wildemuth, 1992, 2004). See generally (Markey, 2007a, 2007b).
As the students struggled with the Client A case, the processes of learning and collaborative knowledge building (Stahl) that are involved in creating legal theory and law practice became apparent. During the course of observation, students consulted other team members, their supervising attorney/instructor, other students and community members. As they engaged in the legal research process, they made use of different types of memory (individual, organizational, group) as part of the problem solving process.

Team members used both formal and informal sources of information as part of the legal research process. Some information was found to be tacit in nature, as opposed to being written down in a form that could be retrieved from a book or a database. Extensive use of collaboration was used to capture tacit information. The supervising attorney/instructor even made use of jokes and stories to convey tacit, practice-oriented information. In the depiction of the events surrounding the Client A case research, several commonly used legal research tools are mentioned. Activity Theory “mappings” of the major research moves of clinic participants are included to show how the clinic researchers alternated between mediating tools (such as books and databases), and people (here seen as the “small world” of law school community members and “friends of the clinic.”)
1. Summer – Client A – Summer Students S1 and S2

The clinic instructor said that the Client A case was “one of the most complex the clinic had ever faced.” Client A was an undocumented (Illegal) immigrant juvenile, who pled guilty to theft in Florida as an adult. Unfortunately, he was later accused of theft and rape in Pennsylvania.

The strategy of the clinic was to have him become classified as a dependent in Pennsylvania and avoid deportation by winning a Special Immigrant Juvenile Visa (SIJ). The clinic was attempting to start proceedings to have him declared a dependent child. However, the County Courts refused to consent to a dependency proceeding, on the grounds that Client A had been adjudicated delinquent. Their argument was that Client A must have either one status or the other (delinquent OR dependent). The 9/20/2004 Caseplan\(^{19}\) for Client A provides more details:

- Client A was born on February 18, 198_ in ____, Colombia. Mother is ________ and father is ________.
- November 20, 1994, his mother was found in a dump outside of ____, Colombia. She had been shot in the head, and was pronounced dead at the hospital that morning.
- May 13, 1995 Client A arrived in the United States as a B-2 visitor (tourist visa) through _____. He was accompanied by his sister. They moved to ______, PA upon arrival.
- October 31, 2000, Client A was picked up by the ____ police department while driving the sister and her husband’s automobile.
- As a consequence of his delinquent behavior, Client A was sent to a juvenile facility in _______, PA from January 2001 – January 2002.
- While Client A was attending high school, the sister and her husband moved to ______, PA. Upon leaving the school, Client A joined them there.
- Sometime in the summer of 2002, Client A went to live with his brother in ______, PA.
- In May 2003, Client A’s 22-year-old girlfriend takes him to her parent’s home in ______, Florida. They break up, and she leaves. But Client A continues to live there with her parents.

\(^{19}\) A caseplan is a statement of the legal theory underpinning the case, the strategies the attorney wishes to explore and a listing of the major legal authorities which will be relied upon. It is an informal, internal planning document.
• July 16, 2003 Client A was arrested by the _____, Florida police for Theft of Prescription Drugs [*Ritalin, Ed.*]. Because Client A was found with a counterfeit Green Card and Social Security Card, the police contact DHS [*Department of Homeland Security, Ed.*].
• August 21, 2003 Client A pleads guilty to petty theft, adjudication is withheld and he is given six months probation. He also must pay court costs and other fees.
• August 24, 2003 Client A is taken into the custody of DHS by Patrol Agent.
• Client A transferred from Florida to the _____ Co. Youth Center.
• December 17, 2003 Client A is released from detention into the custody of his sister.
• On February 2004, the Clinic filed a dependency petition in _____ Family Court and started the process for seeking Special Immigration Juvenile status. In May 2004, the Clinic was informed that the February petition had been incorrectly filed.
• The dependency petition was re-filed per the requirements of the Court Clerk on May 24, 2004.
• In May 2004, Client A was charged with various sexual offenses including rape, deviate sexual intercourse and aggravated sexual assault based on touching the genitalia of two different girls on different occasions.
• Because Client A pled guilty in Florida he is being charged as an adult in Pennsylvania for the sexual offenses.
• Upon finding out that he was to be charged with the above sexual offenses, Client A ran away from home and stole an automobile.
• Client A was arrested in _____ County on May 19, 2004.
• On May 24, 2004 Client A was adjudicated delinquent in _____ County and his disposition was deferred to the ____ County Juvenile Court.
• On May 24, 2004, Client A was detained as a juvenile at the Youth Development Center in ____ County.
• On May 26, 2004, the Public Defenders Office of ____ County was appointed to represent Client A.
• On June 15, 2004, the [Judge] declined to move forward with formal adjudication and disposition of the case transferred from _______ County.
• Judge _____ ordered that Client A be treated as an adult in Pennsylvania based on a previous adult conviction in The County Court of the Sixth Judicial Circuit In and For _____ County, Florida.
• Judge _____ also ordered the withdrawal of several juvenile complaints pending against Client A in _____County which were re-filed in adult court.
• Following Judge _____’s order of June 15, 2004, to withdraw the juvenile complaints and allow the Commonwealth to refile in adult court Client A was transferred to _____ County Prison.

**Initial Meetings**

The observations began on May 24th, shortly after Client A was detained at a Juvenile Facility in ____ County. The clinic instructor, briefed S1 and S2, the clinic student team that would be working on the Client A case. The first couple of meetings were dedicated to coming up with a game plan in light of the recent rape charges. As all major tasks in the clinic are delegated to the students, the first move was made by the instructor in delegating the research task. The ultimate outcome they were hoping to achieve was to
have Client A declared a dependent in order to obtain SIJ status. However, before they could reach that outcome, there were several sub-objectives which they had to obtain. One question which occupied them for the summer and much of the fall was “why does delinquency preclude a dependency adjudication?

Client A- Instructor - Summer

Figure 28 Summer Breakdown Analysis 1.

At the same meeting, the next move the instructor makes is to suggest that the students refer to a standard immigration law reference text, *Kurzban’s Immigration Law Sourcebook*, which contains detailed outlines of many immigration law topics. Below is an excerpt from an undated page from Kurzban’s which was found in the research file:
Mediation

The first substantive move of the instructor was to refer the student to a mediating artifact, in this case, a legal treatise:
The students’ initial thoughts were that the theft charge alone would be enough grounds for removal (deportation), much less the rape accusations. In the next few meetings, the instructor notes that she has started to talk to local practitioners who told her that the chances for getting the dependency adjudication were pretty bleak. She mentioned the names of several people that the students might want to talk to about the issue.

Figure 30 Summer Breakdown Analysis 2.

2. 5/24 Meeting- Recommends Kurzban’s Immigration Law
Client A - Instructor - Summer

3. 5/27 Meeting - Possible Experts Mentioned

4. 6/7 Meeting - States colleagues told her no chance. Suggests Experts

Figure 31 Summer Breakdown Analysis 3, 4.

Client Visit

The students also around this time began to document the client file. A contact sheet (with the names, addresses, and phone numbers of persons encountered as part of the case) was found with the annotation “Don't rely on it” next to the name of a county public...
defender. Meanwhile, S1 tried a Westlaw search. On June 5th, S1 and S2 went to visit
Client A in prison. They not only talked about the status of his case but brought him
toiletries and other personal care items. Client A’s questions about the status of his
immigration case went largely unanswered, however. An excerpt from the memo
documenting the visit is below:

Client A was asking us a bit about the immigration case and we told him
that we weren't sure of the status at the moment, but that we would be
researching it. He said that his PD [Public Defender, E.d] told him that he
was dependent right now. We told him that we were not exactly sure what
she meant by that. He was interested in finding out where he could live
when he is released. We explained that there may be a difference between
“dependency” on the state and an independent minor, but we would look
more into it. He would like to live on his own eventually.

If there is another conversation with the PD and the Clinic, it might be
helpful to find out what she meant by saying that Client A was
“dependent.” This may have bearing with the dependency hearing.

The client himself is of course highly motivated to understand the legal issues
surrounding his case. The students periodically kept him apprised of their research
progress. It would soon become clear that managing the client’s emotional state would
be a big part of the team’s legal task. He clearly did not understand the ramifications of
pleading guilty as an adult.

20 He searched the Pennsylvania court rules database (PA-Rules) for “minor court rules,” and viewed
Orphan’s Court Rule 5.5. PA ST ORPHANS CT Rule 5.5 states in part, “In every proceeding in the
Orphans’ Court involving or affecting a charitable interest with the exception hereinafter set forth, at least
fifteen days advance written notice thereof shall be given to the Attorney General of the Commonwealth of
Pennsylvania at his principal office at Harrisburg, Pennsylvania.”
Meeting

At the June 7th meeting, the instructor summarized the general research procedures of the clinic. She noted that at the end of the summer (semester) a transfer memo is done, which communicates their findings to future students working on the case. She asked the students to refer to the research file and pull the transfer memos and intake files for the Client A case.

The students recounted how they went to see Client A in prison, and obtained toiletries for him. S1 noted that he was in good spirits, was behaving well, and had been elevated to the highest level of responsibility/privileges. However, Client A did not like the private room. The instructor told a story about Eastern State Penitentiary, where people were isolated for two years and went insane.

The students noted that they had also obtained photos of Client A and his past report cards. Because he was undocumented when coming to the US, the clinic students discussed how to get around the fact that now teenage Client A does not look like his childhood photos. Obtaining an age regression/progression specialist was discussed. The students were also asked to look for Client A’s original birth certificate in Mexico, as the document used to enter the US may have been altered.

The instructor stated that what she had heard from colleagues gave her the impression that “he will never be declared dependent because he has been found to be delinquent.”
The instructor noted that the research focus should be to figure out what the exact charges are. She told the students to get the charging sheet, and find out the impact of the charges on the potential immigration benefits. She also told the students to obtain a dependency order which had been issued by a family court before the arrest.

She framed two separate areas for research-immigration law and family law:

1) **Special immigrant juvenile visa**

   Asylum- Underneath this would be withholding of removal/restriction on removal (easier to get, but you don't get as much) and the convention against torture (but we have a weak asylum claim, it is barred because of the criminal case).

   Voluntary departure (ask for if lose). Lets him go without a deportation on his record if he pays for his own airline ticket. What kinds of charges would bar him from the above benefits?

2) **Family Law**

   In terms of dependency, why can't he get it now? Is he barred forever because of his arrest? Because of fines due upon arrest?

The instructor noted that “We need an expert.” She suggested a group shelter worker who specialized in Special Immigrant Juvenile visas. She also noted that “we need to know the law. This family court judge hates this case and wants to get rid of it.” S1 said that they could win the criminal case, but still wind up with a deportation order. He wondered if there was some research already in the file, and indicated that he had started to ask an expert. The instructor also noted that she would ask an expert for advice.
Although the instructor thought the asylum case was weak, she said that his mother was murdered because of her standing in the community. It could have been done by the militia or a cartel. The kids fled the country. Why should he be given back to that environment? We need to find and authenticate the press (about the murder). We could try to make it look like a torture case. If he goes back, he could be a homeless street kid in Bogota.\(^{21}\)

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\(^{21}\) Earlier research in the client files included country research on Columbia. This type of “documentation” research is commonly done in immigration asylum cases to establish that people seeing refugee status in the United States indeed have a “well founded fear of persecution,” which is one of the standards which must be met before being granted refugee status.
Think-Aloud

That same day, S1 tried another Westlaw search specifically upon the substantive issues of the case. The search was observed, and S1 was encouraged to “think aloud” about each step he was taking in the research process. With the above research goals in mind, he began his search. He noted that he often preferred Westlaw because he "learned on the books. Books fit Westlaw."

The first thing S1 tried was to formulate a statement of what the case was about, based on the facts of the case he knew thus far:

\[
\text{This case is about right to a hearing. We are concerned about whether his crimes have an impact on whether our client receives special immigrant juvenile status.}
\]

S1 had to formulate in his mind what the case was about before he could try to match his search terms to the documents in Westlaw.\(^22\)

First, S1 searched in United States Code Annotated (USCA) database for “immigrant! And crim! And juven!” Instead of browsing the text of the statute results, he looked at the Results Plus\(^23\) listings for related secondary sources which appear on the right side of

\(^{22}\) Prior research on attorneys’ mental models indicates that they read cases to build a type of concept map in their minds, which they can then use to compare to new situations and make relevance judgments (Sutton, 1991, 1994).

\(^{23}\) ResultsPlus typically refers a user to other secondary sources, such as American Law Reports, legal encyclopedias, and treatises, even if the search was originally executed in a primary source database. The Westlaw help center knowledge base states: “When you search a case law, statutes, regulations, or analytical database, ResultsPlus information is automatically displayed, when appropriate, alongside the citations list in your search result. Based on your search and its result documents, up to 10 links to documents from analytical and Briefs databases, and two links to West topic and key number references may be displayed. In addition, search results may include links to any of the following treatises…”
the screen. He chooses from that list an American Law Reports (ALR) article “What constitutes aggravated felony for deportation.”

He followed a link from the ALR article to 8 USCA §1101, which defines aggravated felony. Another search in the USCA is vague on what the elements of the offense when a minor is involved. He then decides to search for cases in the ALLFEDS database, which contains results for all federal cases. However, he can’t seem to get a result with the appropriate context. A search for “immigrat! & minor or juvenile” returns:

“minor expense” or something named minor. But I don't know if...let me try 'juvenile.' But I don't think that many people use that term...

Again, he looks at the secondary source listing provided by “Results Plus” to look at the Immigration Law Handbook (IMLH). Here he gets a little bit more luck:

*I’m gonna look at this handbook article. It’s going to look at the definition of convictions, because there are some questions in our case about whether a juvenile disposition is separate from a ‘criminal sentence.’*

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24 More specifically, the document chosen was, What Constitutes "Aggravated Felony" for which Alien Can Be Deported or Removed Under § 237(a)(2)(A)(iii) of Immigration and Nationality Act (8 U.S.C.A. § 1227(a)(2)(A)(iii)), 168 A.L.R. Fed. 575. The following is from the Wikipedia entry on ALR: In American law, the American Law Reports are a resource used by American lawyers to find a variety of sources relating to specific legal rules, doctrines, or principles...Each ALR volume contains several annotations. An annotation is an article that summarizes the evolution of a very specific legal concept in a concise and precise fashion. The article will either be preceded by the full text of an important relevant case, or in later series, contain a reference to the text of the case, which is reproduced at the end of the volume...Although similar in tone to the articles in legal encyclopedias, ALR annotations are different in that they are not organized alphabetically, and they tend to drill more deeply into a specific legal principle or doctrine, while, in contrast, encyclopedia articles aim for the big picture. In addition, ALR articles are careful to provide cases on both sides of the legal issue...ALR has been published in several series (the current series is ALR6th) and there are series of ALR Fed (which focuses on federal law)...Retrieved from http://en.wikipedia.org/wiki/American_Law_Reports

25 USCA is the legal abbreviation for West’s United States Code Annotated. Many researchers use an “annotated code” rather than the official United States Code (USC) because it is more up to date and provides more “value added” material such as cross references to secondary sources and summaries of cases which interpret a particular statute.
Let me run through this real quick and see if there are any headings for juveniles...

Here we go... I’m gonna email this to myself in case I need to find it later. I usually don’t have a problem with the histories.

I will have to reread this later, but what it looks like is as long as they are not tried as an adult, whatever they are convicted of does not count as an aggravated felony for immigration cases.

He decided to use several references from the IMLH. He then ended his research for the day. About this time the clinic instructor received an email from a listserv about a new SIJ guidance memo. A press release about the Guidance from the USCIS (formerly the INS, Immigration and Nationality Service), explained the issue:

Section 203(b)(4) of the Immigration and Nationality Act (INA) allocates a percentage of immigrant visas to individuals considered “special immigrants” under section 101(a)(27) of the INA, including those aliens classified as special immigrant juveniles under Section 101(a)(27)(J). Section 113 of Pub. L. No. 105-119, 11 Stat. 2440 (November 26, 1997), amended the definition of a “special immigrant juvenile” to include only those juveniles deemed eligible for long-term foster care based on abuse, neglect, or abandonment, and added two provisions that require the consent of the Secretary of the Department of Homeland Security (DHS) (formerly the Attorney General) for SIJ cases. One provision requires specific consent to a juvenile court’s jurisdiction over dependency proceedings for a juvenile in DHS custody; the other requires express consent to the juvenile court’s dependency order serving as a precondition to a grant of SIJ status. In the case of juveniles in custody due to their immigration status (either by US Immigration and Customs Enforcement (ICE) or by the Office of Refugee Resettlement (ORR), the specific consent must be obtained before the juvenile may enter juvenile court dependency proceedings; failure to do so will render invalid any order issued as a result of such proceedings.\(^\text{26}\)

The instructor forwarded the email to the students and the administrative assistant and asked that a copy be placed in the files:27

![Figure 33 Forwarded SIJ policy source memo](image)

At this point, although they do not yet think that have reached a barrier in their research, they are already reaching out to colleagues for suggestions. Information is also flowing into the clinic from informal sources.

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27 Such communications were commonly forwarded and placed in the client files.
Client A- Student (S1) - Summer

Figure 34 Summer Breakdown Analysis 6, 7.

Searches

Also on June 8th, S1 tried another Westlaw search, this time specifically on the rape issue. He did searches in the ALLFEDS (all federal cases) database for “rape and juvenile and immigration,” as well as “rape and immigration.” Once again, the ResultsPlus listing pointed him to an ALR annotation titled “What constitutes penetration in prosecution for rape or statutory rape.” From this he viewed the case Commonwealth
v. Bowes. He used the “Most cited cases” feature to find Pennsylvania cases with the same topic and keynumber from the West Digest System.

One of the cases from the “Most Cited Cases” Custom Digest listing was Commonwealth v. Kelley. In the Client A case, the client claimed that there was no “penetration” in an “incident” that took place at an unsupervised high school party. The Commonwealth v. Kelley case was particularly interesting to S1, as it ruled on the issue of what constituted penetration. He researched several issues that day (his searches seemed to go in spurts), including searches for the definition of juvenile delinquent.

The next day (June 9th) he tried Lexis and Westlaw searches to zero in on the delinquency and dependency issue. He did a “think aloud” session for Lexis. Before the think aloud session tried search for dependency and delinquency in Westlaw. He also did a search for “delinquency and dependency” Federal Immigration Cases and Agency Decisions source (Lexis officially calls their database “sources”) and the Immigration Law Reviews Article source.

**Think-Aloud**

Once again, S1 starts by reviewing his meeting notes. He stated that he was less familiar with Lexis, but prefers Lexis to Westlaw when he is searching for law review articles. This time he started by searching the federal statutes (the United States Code

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28 74 A.2d 795.
29 The West Help Center notes that “From a displayed headnote, click Most Cited Cases to retrieve a list of the cases cited most often for the point of law summarized in the headnote.”
30 801 A.2d 551.
31 For the text of the Commonwealth v. Kelley case, see Appendix.
Service immigration database) for “special immigrant juvenile visa.” However, he got no hits. He shortened his search to “special immigrant juvenile” and was taken to a definitions page. He scrolled through the definitions pages, but seemed unaware of the “next term” button at the bottom of the screen.

In the annotations after the statutory text, he found “a case where there was a discretionary decision to grant a hearing on special immigrant juvenile status.” However, while the case was about the right to a hearing he was “concerned about whether his crimes have an impact on whether our client receives special immigrant juvenile status.”

Next he looked in an immigration treatise database (Immigration Law Practice Expediter). He tried to browse through a table of contents but although it looked promising he was unsuccessful. He then tried to search it, starting with simple searches such as “deportability” and “crimes and deportability.” When nothing promising turned up, he searched in the Federal immigration agency decisions database for “Special immigrant juveniles” – again, with no success.

He next tried an Immigration law review article searched for “special immigrant juveniles.” A search for “special immigrant juvenile” and crim! Turned up an article on the Elian Gonzalez case. He noted that it was indeed about the special immigrant statute to protect children, but:

32 The United States Code Service (USCS) is published by Lexis Law Publishing, a major competitor to Thomson West. It provides a similar product to West’s United States Code Annotated (USCA) with the text of the statute followed by annotations (summaries) of the case which interpret that particular statute and cross references to secondary sources such as journal articles and legal encyclopedias.
33 8 USCS §1101.
34 223 F. Supp. 2d 650, Yeboah v. United States DOJ.
35 27 Hastings Const. L.Q 597.
what this is really about is whether federal or state government should have the authority to determine the custody and placement status of an undocumented child.

He decides to follow several citations in law review article footnotes about immigration status.

Another issue we are looking into is whether a client can be declared dependent. That is important because for SIJ status he must be declared dependent by a juvenile court.36

The cases were not very helpful. One of the footnotes in a case leads to a section of the Pennsylvania Code.37 He used the browser find command to find the desired paragraph section. However, the statute was not particularly helpful. He decided to look at state law on dependency. At this point went back to the History,38 and referenced a past search in the Pennsylvania Law Encyclopedia39 that he had done earlier in the day. He went back and forth between footnotes, and noted that:

This says juvenile proceedings are not criminal proceedings. Reinforces what we found the other day on Westlaw concerning the federal rule.

He followed a case citation in the footnotes to a case that seemed interesting and Shephardized it to see if other cases had cited it:

36 He looked at treatises online, but even when had problem with electronic sources, he did not go to the printed book. It almost seems as if he is engaging in a Berry picking type of process? By this stage he is moving rapidly from one source to another.
37 42 PA Code 6302.
38 The Lexis help feature notes that “History is divided into Recent Results (search results from within the last 24 hours) and Archived Activity. History generally displays your searches in reverse-chronological order, with your most recent search at the top of the list. However you can change the order through "Sort" or by clicking the Preferences button in the top navigation bar and selecting another option.”
39 1 PLE Minors 34.
It’s been decided several times, um. No negative treatment indicated for this case, so I’m assuming it is good law.

He took special interest in the Shepard’s (see Appendix A) entry for In the Interest of R.A. He looked at the summary in gray at the start of the entry and took notes.

*I may read this more fully later, but it clearly says that juvenile proceedings are not criminal proceedings. Juveniles are not charged with crimes, they are charged with delinquencies.*

He then went back to the Pennsylvania Law Encyclopedia article:

*Ok. I noticed this earlier. Delinquent actions do not include murder or “any of the following” if the child is 15 or older and all of [defendant’s] crimes are in the list. But it states that the individual must use a deadly weapon. This is interesting. If the prosecutor decides to try as an adult, he bears the burden of showing why the child should not be in the juvenile system.*

Finally, he also searched for cases in the Pennsylvania State Cases Combined file. He noted that:

*So far, unfortunately, in our case we want the client to be found dependent to get the Special Immigrant Juvenile edge with the feds. But in all these cases, parents are working to deny a declaration of dependency. Not exactly what we are looking for.*

With that, he decided to call it a day. At this point, S1 is becoming frustrated by not being able to obtain an answer from his online database searches.
By this time, S1 has tried several “mediating artifacts” such as various types of databases with no satisfactory result. It is becoming clear that he is facing some type of barrier, or breakdown situation.

Figure 35 Summer Breakdown Analysis 8, 9, 10.

He also did several searches on June 10th, focusing on the case Commonwealth v. Kelley. S1 has not actually reached his objective yet, which is to find the answer to the question of why delinquency precludes dependency adjudication, but he wants to do something so he writes up his research notes:
Client A Research

**PA State**
SIJ – 8 USC 1101(a)(27)(j) – must be dependent
42 PaCS §6301 – juvenile act
42 PaCS §6302 – what is not a delinquent act, but a crime

Good Resource
1 PLE §34 Pennsylvania Law Encyclopedia on Minors.

**Federal Immigration**
DEPARTMENT OF JUSTICE, BOARD OF IMMIGRATION APPEALS decision
In Re Miguel Devison-Charles
Juvenile delinquency not “conviction” for immigration purposes.

Crimes for deportation
8 USC §1101(a)(43)(F) – crime of violence
8 USC §1101(a)(43)(G) – theft, sentence of 1 year

*Weriko* 211 F.3d 833 – Does not have to be an actual felony.
*Pequeno-Martinez* 281 F.Supp.2d 902

8 CFR 208 – Procedures for Asylum and Withholding of Removal

(2) Mandatory denials. Except as provided in paragraph (d)(3) of this section, an application for withholding of removal under section 241(b)(3) of the Act or under the Convention Against Torture shall be denied if the applicant falls within section 241(b)(3)(B) of the Act or, for applications for withholding of deportation adjudicated in proceedings commenced prior to April 1, 1997, within section 243(h)(2) of the Act as it appeared prior to that date. For purposes of section 241(b)(3)(B)(ii) of the Act, or section 243(h)(2)(B) of the Act as it appeared prior to April 1, 1997, an alien who has been convicted of a particularly serious crime shall be considered to constitute a danger to the community. If the evidence indicates the applicability of one or more of the grounds for denial of withholding enumerated in the Act, the applicant shall have the burden of proving by a preponderance of the evidence that such grounds do not apply.

(3) Exception to the prohibition on withholding of deportation in certain cases. Section 243(h)(3) of the Act, as added by section 413 of Pub. L. 104-132 (110 Stat. 1214), shall apply only to applications adjudicated in proceedings commenced before April 1, 1997, and in which final action had not been taken before April 24, 1996. The discretion permitted by that section to override section 243(h)(2) of the Act shall be exercised only in the case of an applicant convicted of an aggravated felony (or felonies) where he or she was sentenced to an aggregate term of imprisonment of less than 5 years and the
immigration judge determines on an individual basis that the crime (or crimes) of which the applicant was convicted does not constitute a particularly serious crime. Nevertheless, it shall be presumed that an alien convicted of an aggravated felony has been convicted of a particularly serious crime. Except in the cases specified in this paragraph, the grounds for denial of withholding of deportation in section 243(h)(2) of the Act as it appeared prior to April 1, 1997, shall be deemed to comply with the Protocol Relating to the Status of Refugees, Jan. 31, 1967, T.I.A.S. No. 6577.

8 CFR 208.16

Rape case
Commonwealth v. Kelley 801 A.2d 551 Digital Penetration does not constitute sexual intercourse or deviant sexual intercourse under 18 PaCS §3101.

Meeting

On June 11th the team has another meeting with the clinic instructor. The students noted that they were still trying to get Client A's birth certificate. The students expressed confusion that a public defender said that Client A was dependent while in an earlier conversation she said that he was not. The instructor suggested calling an expert who had worked in the clinic before and dealt with family law matters on a regular basis.

Now S1 tried to use some of the research he had written up the day before. He noted that in his research he found that “juvenile delinquent acts are not crimes.” However, the instructor noted that “asylum is a discretionary claim.” The judge in his discretion may deny asylum based on ANY bad acts.”
After the meeting, S2 pursued obtaining expert contacts. She emailed S1 and the clinic instructor:

```plaintext
Date: Friday June 11, 2004 6:13 PM
Subject: Criminal Defense Attorney

I just called the L.A. County Bar Association and they have a referral service. I told them that I did not want a referral, but rather just some names of attorneys. They gave me three names:

Thomas [714] 555-0000
Gerald [714] 555-0001
Michael [714] 555-0002

I also just spoke with [S2] to get her suggestions. She suggested getting the alumni information of attorneys in York from [S1]. She also said that Prof.[S1] would ask for this info because we will get it faster.

Once we have the information, I suggested calling some of the attorneys and basically asking them who the top guys are. Again, this would need to be done very carefully to say that of course they are grateful. I mentioned the possibility of asking the BA's office if [S1] and she said ideally there would be an alumni at the BA's office that we could ask.
```

Figure 37 Email - Criminal Defense Attorney Referrals
Clearly by this point they are trying to actively pursue talking to other practitioners in the community about this issue.

![Figure 38 Summer Breakdown Analysis 12.](image)

12. 6/11 – Emails Instructor and S1 Re: possible experts.

It is also becoming apparent by this point that the two students, S1 and S2, have two radically different approaches to researching the problem. While S1 seemed far more likely to search a source like a database (even he did not make it to the library very often), S2 seemed to value collaboration far more as a research tool. S1 still plugged
away at searching databases, doing several on June 13\textsuperscript{th} before the next rounds meeting with little in the way of positive results.

\textbf{Meeting}

At the June 13\textsuperscript{th} meeting, the instructor asked S1 if he had looked up the issue on special immigrant juveniles. S1 stated that:

\begin{quote}
\textit{The only thing I saw were requirements, but did not see anything specifically on the point of barring dependency. Most cases are about parents, etc. fighting dependency. It was hard to find cases where people want to be held dependent.}
\end{quote}

\textit{S2 asked “What is delinquency?”}

\textit{S1 answered that it was “when a child commits a crime.”}\textsuperscript{41} He was confused because \textit{“everything I saw was an argument that delinquency was grounds for dependency.”}

The instructor asked both students to print and read “Memorandum #3 – field guidance on Special Immigrant Juvenile Status Petitions HQADN 70/23.”\textsuperscript{42} S2 suggested seeing if a high-powered criminal lawyer in the area would be amenable to donating his or her time to the case.

Birth certificates, handwriting analysis, age progression experts, birthmarks, etc. were all discussed as means of definitively establishing Client A's identity. It has become apparent that in earlier litigation Client A lied about his age. The team begins to understand the significance of his earlier “adult” guilty plea. The instructor notes that

\begin{itemize}
\item \textsuperscript{41} Luckily he had already looked that up online!
\item \textsuperscript{42} This was the document which had been forwarded to the clinic via a listserv and had been forwarded on to the students previously in the semester.
\end{itemize}
“the Public Defender says that once convicted as an adult, the court has the discretion to try him as an adult.” She notes that this is another area in which legal research is needed. S1 asked “how did we get this case?” The instructor responded “for the Special Immigrant Juvenile piece, which looked so strong…”

Think Aloud

Since S1 did not find anything definitive during his Lexis and Westlaw searches, S2 does a search on the same issue:

We decided we would both follow up to make sure that we did not miss anything.

As did S1, S2 starts by looking at her meeting notes and making a statement of the issue to be researched: “researching the effect of incarceration on dependency.” She types the search incarceration and dependency, but cannot pin down the context. She winds up with cases about incarcerated parents who are trying to keep custody of their kids, even when she tries to narrow her search by adding Pennsylvania.

One case does look promising,43 which talks about the Juvenile Act of 1972. She decides to follow the hypertext link to the full text of the act. Thinking back to the referring case, she notes that:

The finding in this case was that the juvenile did not fit into the dependency categories of the act, but was still found dependent in part upon the mother’s failure to control the child.

43 In Interest of J.R. 648 A2d 28.
S2 tries a search in the ALLCASES database (the most comprehensive case law database available) with the searches “incarceration and dependency” and “incarceration of juvenile and dependency.” Once again, she has problems retrieving terms within the appropriate context:

*Um, lots of this stuff is dealing with juvenile, but going into different areas than what I am looking at. The first is about being in a women's prison than in a male prison and arguing that it is not age appropriate...most of what is pulled up is on incarcerated parent. That does not apply to what I am looking for...*

*A lot of these dependency cases talk about drug or alcohol dependency...That is not what I am looking for...*

*There’s a case that's looking at dependency and legal guardianship. Actually, it is a California case, but looking at it for background would be helpful...*

*This does not seem to be too helpful because the child was taken away from parents who was seen as unfit and they were righting to regain custody...*

*There's a case here called Yu v. Brown, which is about special immigrant juveniles which I need to learn more about...Actually, in this case, this is not helping very much. This case is about issues further down the line on the proceedings. This case is not as helpful to me.*

Finally, S2 begins to look at some of the secondary sources suggested by the Results Plus listings. One of the sources she looked at was the legal encyclopedia, American Jurisprudence 2d section on dependent or neglected children.44

Once again, the result was not very helpful:

*The beginning is all dealing with negligence which is not a claim on my case. Something interesting here... Paternal grandparents claimed child.*

44 AM JUR Juvenilect §54.
But the child was declared dependent because they were not legal guardians.

This case would not be good for us. The case says if the child is receiving proper care or supervision he cannot be declared dependent. But maybe client A is in jail we can argue that his is not receiving proper care...

Following hypertext links to statutes and the Summary of Pennsylvania Jurisprudence\textsuperscript{45} also fails to find on point caselaw. Finally she begins to realize that:

Part of the issue is that the issue I am researching is so fact specific that there will be little case law on it.

As the focus of the clinic shifted to more individual and client meetings no additional meetings were observed over the summer. The students however, begin to see that the challenge with this particular issue is that there may be no formally written legal materials which address it!

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\textsuperscript{45} PAJUR FAMLAW §14:6. The \textit{Summary of Pennsylvania Jurisprudence}, is a legal encyclopedia for the state of Pennsylvania. Many states have legal encyclopedias with a local focus.
The students are still apprising Client A of their progress, and write to him in prison:

*We have found a case that should give you some encouragement on your charges. Your defense attorney will know about it, but we thought you would like to read it. The case is Commonwealth v. Kelley, 801 A.2d 551 (Pa. 2002). The instructor thinks that they may have a law library at your facility. The charges against you are still serious, but maybe not as bad as they seem.*
15.6/18 S1 writes letter to Client A using Com. V. Kelley.

Figure 40 Summer Breakdown Analysis 15.
**Collaboration**

S1 still tried searches of various types over the summer, but his focus gradually moved to talking to practitioners about the issue.

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**Client A - Student (S1) - Summer**

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**MEDIATING ARTIFACTS**

**Clinic Student (S1)**

**SUBJECT**

**OBJECT**

**OUTCOME**

**RULES**

**COMMUNITY**

**DIVISION OF LABOR**

**Outcome:** Have Client A Declared Dependent to Obtain Special Immigrant Juvenile (SIJ) Status

**Answer Question:** Why does delinquency Preclude Dependency?

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16. 6/29 Lexis Search (used Search Advisor)

17. 7/7 Westlaw Search

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Figure 41 Summer Breakdown Analysis 16, 17.

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On July 7th he added the following memo to the file:
MEMORANDUM

To: Client A File
From: S1
Date: 07/07/2004
Re: Expert 75

I spoke with Expert 75 this morning. It was not very encouraging. I told her about the current charges (No details, just the fact that they are serious charges). Basically she said that acquittal is his best bet, but even then, DHS will place him into immigration detention. One possible tactic if this happens is that they can only hold a person for 48 hours in a non-immigrant facility at that point. If immigration doesn’t meet that deadline, we may be able to get him released on a writ of habeas.

She also said that even if we had CYS\textsuperscript{46} on our side, DHS would still be very difficult to deal with. They will probably refuse consent to move jurisdiction to family court even with the support of the child welfare agency.

The birth certificates will still be crucial. Even if everything goes Client A’s way in the courts, DHS will do a dental analysis on him and claim that the dental exam \textit{proves} he is over 18. She said if they do that we can fight it with experts who will say that the test is wildly inaccurate. If we get the Hague convention stamps on his birth certificate, that won’t be an issue.

Unfortunately, it looks like even with the support of CYS, which we don’t have, and a full acquittal on his current charges, which seems unlikely especially with the receiving stolen property charge; this is going to be an uphill battle.

She is sending us a redacted memo about a juvenile with 6 arrests to show that he still has good moral character to stay. Also, she is sending a memo about DHS’ policy regarding consent to family court jurisdiction.

Also about this time the students began to have “problems” accessing the client’s court file:

\textsuperscript{46} Children and Youth Services.
From: S2  
To: S1, Instructor  
Date: 7/9/2004 1:45:15 PM  
Subject: Client A and conversation with judge's clerk  

Professor,  

We have had an interesting afternoon. First, we contacted the judge's clerk and asked her about the CYS filing. She again informed me that it was the same as the original, but she knew that they would be amending to add something about Client A’s criminal charges. I did not respond to that other than saying ok.  

I asked her how we could get a copy of the re-filing regardless of the fact that it was a duplicate of the original. I questioned the fact that we are supposed to be served. She hesitated and was like “um, yeah, urn” and then suggested that I talk to [CYS contact] to request a copy by fax.  

I asked her how long we have to respond to the CYS’ answer and she said that was ten days (she believed). I again questioned the fact that as we were not served when does the ten days start to run. She said again she wasn't sure, but that she imagined that it would be 10 days from when we were served.  

I continued to question her on when CYS filed and she initially responded that they had filed on Wednesday, July 7. When I questioned her further as to the fact if there was a deadline for when CYS had to have filed their response she hesitated again. She then looked on the computer and said that CYS filed their answer on May 24, 2004. I again informed her that we were never served.  

At that point she said that she would call CYS and figure out what is going on. Throughout the conversation she said several times that this is all because this was messed up in the beginning because it was incorrectly filed. I said that I didn't know much about that but as far as I knew it was correctly filed this time and therefore a different matter.  

The conversation ended with the clerk saying that she would call CYS and have CYS call us. I told the clerk to have CYS ask for S1 or myself.  

I think that we should consider going to ____ at the beginning of next week if possible to look at the filings in the court and determine when it was actually filed for ourselves.  

Let us know what you think the next step should be  

S2
S2 also spoke to an expert, who mentioned a possibility which turned out to be the key to solving the case:

From: S2  
To: S1, Instructor  
Date: 7/9/2004 2:35:33 PM  
Subject: Re: ___ and other calls.

Professor:

We also spoke with ____ from the Philly PD office this afternoon. Essentially she told us that Client A’s case did not look good. We told her that our basic question is why his criminal convictions/case would affect his dependency. She didn't give us a full explanation, but said that this kind of went beyond her and that she would talk to other people about it.
PD _____ is a “good buddy” of hers and she may contact her as well. We didn't mention any of our encounters with _____ to ____. We mentioned that ____ is the one who told us that he had no chance of dependency and we were just trying to figure out why.

_____ also questioned the FL conviction and the possibility that that could be overturned if the court did not have jurisdiction and they knew that Client A was a minor.

_____ said that she would try to get back to us next week. She was extremely nice and helpful, but warned us that what we are trying to do may be next to impossible.

---

**Client A- Student (S2) - Summer**

![Diagram](image)

**Note:** This is in fact the key to solving the problem! Fall students follow up on this.

Figure 43 Summer Breakdown Analysis 19.
Meanwhile, S1 tries another Lexis search for “juvenile and act and dependency and jurisdiction” in the Pennsylvania Law Encyclopedia.

Client A- Student (S1) - Summer

20. 7/13 Lexis Search

After his search he writes what was later to be known as the “Crimes Memo,” summarizing what the students knew about the law on the issue to that point. An excerpt is below:

From: S1  
Date: July 15, 2004  
Re: Client A: Immigration impact of Criminal charges
Instructor has asked me to prepare a memo concerning Client A’s current charges and the impact they have on his immigration case. Most forms of removal relief will not be available to Client A if he is convicted of his current charges. Availability of other forms of relief will depend upon the length of his sentence, if convicted.

Charges
Client A has been charged with receiving stolen property, two counts of rape, two counts of sexual assault, involuntary deviate sexual intercourse, two counts of aggravated indecent assault by force, two counts of aggravated indecent assault without consent, and two counts on the other complaint in which the non-consensual, force, and unconscious or unaware subsections are combined in the charge, two counts of indecent assault by force, and five counts of indecent assault without consent (See charge sheets on file). Any of those crimes, if proven, rise to the level of a crime of moral turpitude. The two complaints revolving around the sex crimes are a bit confusing. Some charges are listed in the charges section, some are listed in the narrative section, and some are on the continuation sheet. The charges in the Narrative section seem to be the same charges that appear in the other sections, restated.

The charges of rape, sexual assault and involuntary deviate sexual intercourse are not appropriate. *Com. v. Kelley*, 801 A.2d 551 (Pa 2002). Digital penetration does not constitute sexual intercourse and cannot form the basis of those charges. *Id.* If the charges are proven, Client A will be guilty of aggravated indecent assault and indecent assault, but not rape or the other sex charges.

Client A is being charged as an adult because of his plea bargain in Florida as an adult. But for that, his actions would be adjudications of juvenile delinquency and, therefore, not convictions for immigration purposes. *Matter of Ramirez-Rivero*, 18 I & N Dec. 135 (BIA 1981).

That does not apply when the state charges a minor as an adult, even if the charge would not be an adult charge under federal law. *Vieira Garcia v. I.N.S.*, 239 F.3d 409 (1st Circuit 2001).

Adjustment of Status
It has been pointed out that Client A is already deportable because he is here illegally. 8 USCA §1227(a)(1)(B). The clinic's strategy was to attempt to adjust Client A's status to Special Immigrant Juvenile. However, this will be impossible if Client A is convicted of any of the charges against him.

Even though Client A is here illegally, under the statute, a person who is seeking special immigrant juvenile status will be deemed to be paroled into the United States, a requirement for adjustment of status. 8 USCA §1255(h). Many of the grounds of inadmissibility in 8 USCA §1182 either do not apply or can be waived. Unfortunately, the statute specifically excludes from waiver the subsection that refers to crimes of moral turpitude. 8 USCA §1255(h)(2)(B).
Crimes of Moral Turpitude

Except as provided in clause (ii), any alien convicted of, or who admits having committed, or who admits committing acts which constitute the essential elements of . . . a crime involving moral turpitude (other than a purely political offense) or an attempt or conspiracy to commit such a crime . . . is inadmissible. 8 USCS §1182(a)(2)(A)(i)

S1 noted in a followup interview that the one problem he could not crack over the summer was the assertion by the Public Defender that Client A could not be classified as a dependent child because of prior bad acts. He noted that

I talked to an expert (the head of a resource center for child advocates) today who says there is nothing specifically in the law, that is just the way it is done...he says it has to do with resources and efficiency...

It looks bad for the client. No Dependency, no Special Immigrant Juvenile Status (SIJ). No SIJ, no way to stop the deportation proceedings. A District Attorney in Philly that deals with juveniles says that what we are trying to do is next to impossible. Also, an expert said that the Department of Homeland Security doesn't play fair and that they would go to almost any lengths to prevent SIJ. So even if he gets over the state court dependency hurdle, he will almost certainly fail at the federal level on his deportation appeal.

S1 noted that much of the material comes from a print book recommended by the instructor at the beginning of the summer: Kurzban’s Immigration Law Sourcebook.
The last action of the summer students was to write a Transfer Memo to the next group of students indicating what had been done over the summer and what actions needed to be taken. Below is an excerpt:

From: S2 and S1  
To: File  
Re: Transfer Memo for Client A  
Date: 8/6/04  

Immediate Action to be Taken  
This case is at standstill at the moment as we are awaiting telephone calls from experts who have been contacted. Expert A is returning from vacation on Monday, August 9, 2004. He said that he would call the office, but if he does not call by Tuesday or Wednesday a call should be made to him. We contacted Expert A to get his advice on the issue of dependency. Based on what Expert A says the possibility of withdrawing the dependency application should be considered. (See two emails sent to Clinic Student (S1) - Summer 21. 7/15 Writes "Crimes Memo" With research to date.

Student states that much of crimes memo material comes from *Kurzban’s Immigration Law Sourcebook.*

Figure 45 Summer Breakdown Analysis 21, 22.
As the summer students became more familiar with the case there were fewer formal meetings and more emails/memos to file. This trend would continue in the fall.

2. Fall Semester- Client A – Fall Students S3 and S4

The fall students picked up the case at the beginning of September. Their first move was to read the transfer memo from August. By the end of the summer S1 and S2 had moved to collaboration with various experts as a possible way to solve the problem. The fall students were unsure of the next step. The instructor acknowledges that the case was complicated. She asked the students to split the Client A file into two parts 1) immigration and 2) family law, and set the priority as the family law piece, feeling that they have done all they can do on the immigration issue.

The new students were also encouraged to meet with S1 to find out what happened during the summer session. The bottom line gut feeling is that Client A pled guilty as an adult to theft in Florida and it will stick. The instructor notes that the summer students were never able to satisfactorily resolve the issue of “how do the criminal claims and the fact that he is in detention impact his dependency request.” Unfortunately, Client A does not understand that because he opted for adult status in Florida he is stuck with it forever.
The students do question however, whether they can attack the Florida guilty plea. Perhaps Client A was not properly warned by the attorney about the consequences of this course of action. The instructor gives them permission to talk to the Florida Public Defender for the Client A case. As it turns out, the validity of the Florida guilty plea may turn out to be the lynchpin of the case.

The students spend the rest of the meeting trying to understand the complex facts and issues of law of the client A case. S3 starts with the law clerk who is hearing the Client A case, to check the status of the dependency petition:

<table>
<thead>
<tr>
<th>TO:</th>
<th>File</th>
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<tbody>
<tr>
<td>FROM:</td>
<td>S3</td>
</tr>
<tr>
<td>DATE:</td>
<td>9-04-04</td>
</tr>
<tr>
<td>RE:</td>
<td>Phone Call to Judge _____’s Clerk re Client A</td>
</tr>
</tbody>
</table>

I spoke with, Judge _____’s law clerk. She confirmed that our case would have been heard in front of Judge ____. However, she indicated that the petition for dependency was suspended pending the results of Client A's criminal case. I said that we understood CYS would have to file a petition opposing dependency in order for the petition to be suspended. However, she said that the process was “automatic” and that no action by CYS was necessary.

I also inquired about seeing Client A's file. She first provided the same explanation that we have received in the past- that we are not allowed to see the file. I explained that we were certified by the State of PA and that we were serving as Client A’s attorney and needed to have access to these files in order to provide adequate representation. She said she would inquire as to the possibility of us seeing the file and would call me back tomorrow.
Where in the summer the first moves seemed to be geared towards searching databases in the fall the focus is clearly on talking to people. Also at this beginning stage, S3 and S4 write a letter to Client A introducing themselves and noting that “We are currently focusing on two important issues. First, the effect of your ongoing criminal proceedings on your dependency application. Second, the effect of your being processed as an adult in Florida on your current criminal proceedings in Pennsylvania.”

S4 and S3 also met with one of the summer students, S1, to go over the facts and legal theory of the case. Once again, the focus is on the dependency issue. S1 notes that he asked an Expert and that:

He'll go down for car theft. Even if we get dependency, we can't change his status (from adult to juvenile) because of his prior crimes. It's in the transfer memo.

S1 also notes that at this point, the court may not care about his real age because “the charges have both his real and his claimed age, and the fake ID date.” The students form a consensus that almost everything he has done bars him from entry into the US. The car theft alone was a “crime of moral turpitude.” Unfortunately, more facts emerged at the end of the summer. Client A appears to have been “inappropriately involved” with more than one girl at the party that spawned the original rape charge. He will now be charged with two counts of rape. S1 wrapped up the meeting with “I learned a lot because I had to research so much but it is tough to see what you don't want over and over again.”
A few days after the meeting with S1, S3 attempted a Westlaw search. The search was observed and S3 “thought aloud” about his search process. Even while using Westlaw, was thinking about what people had told him or research steps that the prior team had taken. He was pretty pessimistic at the beginning, noting that “The other students already did a lot of research on the issue so I don’t know what I am going to add to this.”

As the other students before him, he referenced the meeting notes and stated his research issue: “how a pending criminal charge affects a dependency proceeding.” When he asked if there was anything he should be doing, the observer urged him to research the
way he normally would (and/or based upon what he had learned from legal research). He decided to search for cases first, “because that is the way I do things.”

He tried a natural language search, “pending criminal proceeding on dependency.” As his predecessors did, he notes that he is “getting a lot of stuff with parent involvement with crime and dependency, but not a lot with the child.” He sees that his general strategy is to “find a case that looks at all helpful and to the key numbers and search from there.”

After a few nonproductive searches, he finds a case which may be helpful and clicks on the topic/keynumber classification heading he wishes to follow. He reads the summaries of the cases under the same topic but the only vaguely helpful case goes against his client. Most of them “don't look even remotely applicable... about juvenile crime but not about dependency...” Thinking that what he is getting is too general, he clicks the back button to go back to the original digest and keynumber search and tries another subject heading. However he still gets “nothing about the criminal act of a child.”

He looked through 73 headnote summaries with no success. After another abortive keyword search he goes to the research trail and goes back to his first natural language case search. At this point he express that “I'm a little frustrated because I know other

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47 In fact, the first year legal research course at his law school teaches students to reference secondary sources first!
48 Westlaw online provides the ability to search by the subject classification of system for cases, the "digest topic and key number system." Any case classified according to the West system can lead to other potentially relevant cases.
49 In re T.T., 842 A.2d 962 (2004).
50 As opposed to using the research trail!
people have looked for this and found absolutely nothing. So I will go back to other case and see if I can get educated about it.”

After several heavy sighs he finds a case which states that there is a state interest in finding a child dependent only when it is clear that the natural parents cannot or will not take care of the child. He stated that “is like our case in that the mother is dead and the father is in Columbia somewhere.” He notes the citation to the case for future reference. After a few more futile searches, he states “Going to be honest. I guess I struck out.” After the camera was turned off, S3 said, “I have a message out to one of the experts.” He also noted in a followup interview that he probably would not even have done this search were it not for the benefit of the observer!

51 In re Adoption of A.M.B, 812 A.2d 659.
At their next meeting, the students reported to their instructor about the meeting with S1 (the summer student), and plan for a meeting with the client in prison. They noted that they had still not heard back from the expert S1 had initially tried to contact in the summer. Around the same time period, S3 and S4 updated their case plan. An excerpt is below:

2. Goals

  a) Our first goal is to meet with Client A and to counsel him on the memo sent by S1 and S2 regarding the impact his criminal charges have on his immigration status.
b) We are currently in the process of conducting further research on the effect of a pending criminal proceeding on dependency.

c) Touch base with CYS [PA Children and Youth Services department, ed.] (Instructor will need to speak with them) to see if anything the clinic is unaware of his happening regarding Client A’s dependency petition.

d) Continue contacting Colombia in an effort to obtain an original birth certificate for Client A.

e) Further investigate Client A’s agreement to plead as an adult in Florida.

f) Obtain an official list of charges from Client A’s Public Defender.

g) Contact experts regarding how the pending criminal charges affect dependency because of the absence of applicable case law available.

h) May be forced to argue case strictly from a humanitarian standpoint. Client A has been living in the United States since age 6 and has no family to return to if sent back to Columbia.

i) Keep in contact with Client A through visits and letters and attempt to keep his spirits up.

They also listed more specific information with respect to the dependency petition:

Obtaining Special Immigrant Juvenile Status for Client A

Persons under the jurisdiction of a juvenile court who are “deemed eligible for long term foster care” may be able to obtain special immigrant juvenile status and, based on that, apply for lawful permanent residency.

1. Petition Family Court to get Client A Adjudicated Dependent

The Immigration and Nationality Act (INA) provides that an applicant must meet the following criteria to qualify for SIJ status. INA § 101(a)(27)(J), 8 USC § 1101(a)(27)(J).

   a. Dependency, Delinquency, or Other Juvenile Court Proceedings
The applicant either must be a dependent of a juvenile court, or a juvenile court must have had the applicant legally committed to, or placed under the custody of, an agency or department of a state. In either delinquency or dependency proceedings, the child applicant must meet all of the requirements for SIJ status, including the requirement discussed below that she is “deemed eligible” for long term foster care.

Breakdown? Literally!

Another week, another meeting. S3 has another appointment so he has to leave soon after the meeting begins. The instructor admits that they are stalled out on this issue. After S3 leaves, the instructor and S4 discuss the Client A case. She notes that the rape case should be proceeding soon. S4 refers the instructor to S3 for an update on the dependency and delinquency issue. They still have not heard from the expert they have been trying to contact since the summer.

The instructor asks the student to contact Client A’s family as well as people from CYS (Children and Youth services) about the case. She notes that it may be time to act with whatever they have: “If we can't find anything about dependency, we need to write a brief with our best argument.”

“So you want this to move!” S4 responds.

The instructor leaves for another meeting, and S3 enters. S4 tries to impart the instructor's sense of urgency: “need to move on Client A.” S3 becomes very agitated: “Wait! Didn't
she just say…” and throws a piece of paper across the room. The students plan on how to write a memo on what they have. “It won't be long, but it will be a memo!”

At the next meeting, the dependency issue was again discussed. The instructor wants to know what the other side has to say about this. Chances are, the other side has made no move because they were waiting for a theory/rationale from the clinic! S3 notes “we could not find anything on that, so how could they?” The instructor notes that “We should see the record. We should fight this. We were promised a brief in June and never got it.” In essence, the instructor wants the other side to do some of the work for them.

Client A- Instructor- Fall

9/29 The dependency issue is again discussed. The instructor wants to know what the other side has to say about this. Chances are, the other side has made no move because they were waiting for a theory/rationale from the clinic!

4. S3 notes "we could not find anything on that, so how could they?"

The instructor notes that "We should see the record. We should fight this. We were promised a brief in June and never got it."

Figure 48 Fall Breakdown Analysis 4.
That same day, S4 tried a Lexis search. She pulled up a case which had been discussed by the summer students, Commonwealth v. Kelley (801 A.2d. 551).

She also that day called Client A’s Public Defender (PD) and talked to him about the case:

**MEMORANDUM**

<table>
<thead>
<tr>
<th>TO:</th>
<th>File</th>
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<tbody>
<tr>
<td>FROM:</td>
<td>S4</td>
</tr>
<tr>
<td>DATE:</td>
<td>September 29, 2004</td>
</tr>
<tr>
<td>RE:</td>
<td>Phone Call with Client A's Public Defender</td>
</tr>
</tbody>
</table>

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**Figure 49 Fall Breakdown Analysis 5.**
Today I spoke with Client A's Public Defender. He informed me that Client A's preliminary hearing is scheduled for October 14th at 9:00am. The hearing will be with Judge ______. The PD said that the hearing will be to determine if Client A will be pleading guilty or if he plans to go to trial. The PD also anticipates that the D.A. will be trying to bargain with Client A. The ____ currently assigned to the case, a man named _____, is supposedly a jerk, and he and the PD do not get along. The PD is pretty sure that Client A will not plead guilty or accept a bargain, even though the PD feels those options are in his best interest. The PD said that if this goes to trial, which it probably will, the trial will be held somewhere between October 25 to November 12. The trial should last about 3 days.

The PD read to me the official charges that Client A is facing. He has been charged with felony 2 auto theft. On Docket # _____, he is being charged with 2 counts of aggravated indecent assault, 2 counts of indecent assault, and 1 count of attempted rape. On Docket # _____, he is being charged with 3 counts of rape, 1 count of involuntary deviant sex, 2 counts of aggravated sexual assault, 2 counts of sexual assault, and 3 counts of indecent assault.

The PD’s outlook on _____’s situation is pretty grim. He stated that investigations to get witnesses to testify on _____’s behalf have been unsuccessful. Client A’s sister is not being cooperative, and when I mentioned a potential witness that _____ had noted in his letter, _____, the PD replied that he is the son of a known felon who was sentenced to 10 years for attempted homicide. The PD also said that the evidence against Client A is damaging. Apparently, there are 15 letters that the PD wrote to various girls with very obscene language discussing the sexual things he wants to do to these girls. The PD mentioned that Client A attempted to hire a private investigator who called the public defender’s office, but the office will not pay for the investigator’s services. The PD does not think that Client A understands the ramifications of what is going on, and why he should take a bargain. He said “No one can make him see the light of day.” The PD thinks that a judge will be more sympathetic than a jury will be.

The PD said that Client A’s conviction is “virtually a forgone conclusion”. He also stated that if Client A is convicted of rape the mandatory minimum is 5 years, which may effect our petition for dependency in the family court because Client A would be over 21 by the time that he was released.

The PD was very helpful, and he was well-informed of Client A’s status. Although he stated this is probably a losing case, he said that is he is just trying to be realistic, and he is still doing whatever he can to help
Client A. I offered our help but he said that there was not much we could do for now.

They still were not doing well with the ____ Family Court in viewing the file either:

MEMORANDUM

TO: File
FROM: S4
DATE: October 5, 2004
RE: Follow Up Phone Call with Judge ______’s Office

Today I spoke with Judge ______’s office with the ____ Family Court. She was calling as a follow up to her conversation she had yesterday with S3. She told me that she spoke with Judge ______ regarding Client A’s file. She stated that we need the permission of the court to see a suspended juvenile file. She said that Judge ______ had denied us that permission because there has not been any activity regarding the file due to the suspension. I asked her if the instructor would still be able to see the file and she said no, not without permission from the judge.

She told me that a petition for dependency is automatically suspended once criminal proceeding begin. She said this procedure is similar to the procedure they follow with a petition for custody. She said once adoption proceedings begin, custody actions are suspended.

She also told me that if his criminal charges are dropped, his dependency file will reopen and we may be able to see the file then.

Road Trip!

At the next meeting, the students discussed their upcoming prison visit to Client A, which would take place later that day. The instructor went over with them the documents they need to bring with them to the prison and the general procedures for the visit.
There still appear to be problems with accessing parts of Client A’s court records.

The instructor admits that part of the difficulty can be traced back to a fractured relationship with CYS (Children and Youth Services) over the summer when one of the students had a dispute with a CYS worker. “We never established a relationship with CYS.”

The instructor suggests meeting with a family court expert. The instructor also urges the students to renew their efforts to contact the expert from the summer: “are you just emailing or are you calling directly? He is a player in the system…”

S3 volunteers that his roommate (also a law student) had some familiarity with the area and suggested an expert to him. S4 recounts that when she met with the Public Defender (PD) he stated that the rape case will be “a tough sell- an Hispanic kid versus two white kids in ____ County with their families there…it looks like a bad scene.” The PD had urged Client A to take a plea.

The instructor notes that she “can't predict the immigration effect of his plea. But any plea will likely get him deported. If it comes to that, we may have to turn to the convention against torture. He may not have a clue, may not even have a case, but ask him…probably will wind up with a deportation order either way. If he is deported, will be a 10 year bar to reentering the US. And a criminal conviction means that he may never be eligible to come back, even if his sister wanted to sponsor him.” Unfortunately, S4 notes, “the sister is not cooperating at all.”
The instructor explains that they have few options left. “Since he confessed to receiving stolen property the immigration law is really tough, especially after 1996. A small offense can ruin your chances of citizenship forever.”^52

Client A had also been doing research on his own on the case. During the meeting with Client A, the client stated that even though he had heard about the “once an adult, always an adult” rule, he still believed that there was a possibility that he could be charged as a juvenile (he right, as it turned out). However, the public defender still believed that the chances of reviving Client A’s juvenile status were slim. A memo to file from S4 detailed the meeting with Client A and her followup with the public defender:

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MEMORANDUM

TO: File
FROM: S4
DATE: October 6, 2004
RE: Visit with Client A at Prison

**********

He inquired about his status as an adult in the criminal system and he wanted to know if we ever got his birth certificate. We told him that we were working on getting the certified copy, but we told him his birth certificate is probably not going to help him at this point. He has heard the once an adult always an adult rule but he still thinks there is a possibility that he will be charged as a juvenile. We asked Client A about the circumstances of when he agreed to be charged as an adult in Florida. He told us that he used a fake ID when he was arrested and he showed that ID to the judge. He said that he did not admit to his real age until the INS authorities showed up. Because he never told anyone he was a juvenile, no one explained to him that once he was charged as an adult, he would always be charged as an adult.

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^52 For commentary on the immigration consequences of criminal convictions, see (Newcomb, 1998; Peutz et al., 2006).
I left Client A’s public defender a message yesterday inquiring about Client A’s status as a juvenile. He called me back and repeated the once an adult always an adult rule and he said it definitely applies in PA. He stated that there was no way that Client A’s case was going to be moved to the juvenile system.

By this point, the students are frustrated, and so is the Client. At the next meeting they describe Client A as “defeated.” No one was willing to be a witness for him. He still talks of going back to foster care as if he cannot face the fact that he will probably have to face trial for rape as an adult. The students urged him to listen to the Public Defender, who had suggested that he take a plea bargain agreement, because “once he repudiated juvenile status [in Florida] he did it forever after in all other states.” If nothing else changes, he would go to trial in two weeks.

S3 notes that he has talked to two experts, a law professor and someone with a strong interest in juvenile cases. The instructor beings to redefine the issue, noting that “it sounds like the whole thing was a mistake, a house of cards, based on the judge in Florida?” More discussion takes place concerning the circumstances of the adult guilty plea. The students decide to call the Public Defender in Florida as a last ditch effort.

The instructor however, begins to think “maybe it is hopeless.” She notes the irony of it: “Funny, He was so proactive in this case. He got the case moved from one judge to another and from felony to misdemeanor. But he never did the other move that would have helped him so much more…”
They discuss possible outcomes if Client A is convicted of rape. The instructor notes that if he takes a plea, the state will negotiate for a shorter jail time and deport him immediately upon release. S3 points out the crux of the matter: “What are the ramifications? We can't help him unless he gets completely off?” Right, the instructor replies. “We probably can't help him over that stupid car theft!... It seems the best thing for him may be to hurry back to Columbia.”

**Client A- Instructor - Fall**

6. 10/13 Meeting. Instructor redefines the problem. She notes that “it seems like the whole thing was a mistake, a house of cards, based on the judge in Florida?”

**Figure 50 Fall Breakdown Analysis 6**
That same day, the students decided to talk to the head of the Civil Justice Clinic about the Client A Case:

MEMORANDUM

TO: File
FROM: S4
DATE: October 13, 2004
RE: Discussion with justice clinic Professor about ____ Family Court

Today S3 and I spoke with Professor ___ about the problems we have been having accessing Client A’s file with the ____ Family Court. [The instructor] suggested we speak to her because she has had a lot of experience with family courts and dependency hearings. Although Professor ____ has not had any prior experience with ____ specifically, she was very helpful.

Professor ____ told us it was very possible that the ____ Family Court has an informal process of suspending a dependency request while criminal charges are pending. She told us that the reason why we may be having trouble with the court is because usually the same parties are dealing with these kinds of cases. The family court probably does not usually deal with outside attorneys. Most dependency requests come directly from CYS. It is unusual for CYS to be opposing dependency. She also said it is unusual for attorneys to be the party requesting dependency.

Professor ____ said that she was surprised the court was denying us access to the file. She also said that there probably is no reason for us to see it while the proceedings are suspended. However, that is not a proper reason to deny us. Professor ____ said that the court probably should be documenting some of their actions regarding the file.

Professor ____ agreed that there probably is not much else we can do besides file a motion requesting access to the file.
7. 10/13 – Students talked with a Villanova Law professor about the dependency process. The Prof said that “was very possible that the ____ Family Court has an informal process of suspending a dependency request while criminal charges are pending.

Figure 51 Fall Breakdown Analysis 7.

Good news! At their next meeting the instructor said that the Public Defender got a continuance until January to try to make a stronger case. How, the team has no idea. The instructor consulted one of the other clinical instructors, the head of the Civil Justice Clinic, about the procedural problems they were having getting access to Client A’s court records. The head of the Civil Justice Clinic gave the instructor the name of a family court judge who was willing to speak on the issue. “Surely we must be able to find someone who is willing to hazard a guess. Maybe it is just a matter of finding someone who has had experience with it.”
Various other experts are discussed. The instructor notes about one particular expert that “at the beginning of the summer we asked her about the rape issue. We researched the dependency issue before realizing that it was going to come to a screeching halt.”

9. Various experts are discussed. The instructor notes about one particular expert that “at the beginning of the summer we asked her about the rape issue. We researched the dependency issue before realizing that it was going to come to a screeching halt.”

There were no further observations of meetings. During the remainder of the semester, the students and the instructor pursued contacts with experts to help them with the dependency and the adult guilty plea issue. The students at this
point were talking to anyone that they could think of who might have helpful information. For example, S4 talked to a University of Pennsylvania Law Professor:

TO: File
FROM: S4
DATE: November 15, 2004
RE: Phone Call with Professor at Penn Law School

Today I spoke with a professor at Penn Law School. Professor ____ recommended that we contact him to see if had any advice about how Client A’s criminal proceedings should affect his dependency petition.

He was very helpful. He told me that he has handled cases with overlapping delinquency issues and dependency issues many times, and he has never been told that dependency cases should be automatically suspended if criminal issues come up. He referred to a delinquency case he handled where the judge presiding over the case actually ordered that the child’s dependency be dealt with before they made any determinations about his delinquency. He also said that when a criminal issue comes up, they will try to speed up a child’s dependency first so that will be taken care of. He said he was unaware of any legal basis for the automatic suspension that ____ County claims is their policy. He told me that we should demand documentation of the suspension.******

S4’s memo on a phone call with the Support Center for Child Advocates noted:

…that in Philadelphia, in the past, an adjudication of delinquency would cause the dismissal of a dependency proceeding. She said this was mainly because of financial reasons. She said that with dual adjudications issues arose about who was responsible for paying for the child. In criminal proceedings probation would pay for a child’s placement, and if a child is declared dependant, then youth services would pay for the child. Ms. ____ said that these dismissals were not done automatically- there was a hearing. She said that the trend now is to allow the proceedings to go on at the same time. She pointed out that each county does things differently, and she has no experience with ____ County. She said that it is possible that ____ does automatically dismiss but we should have received notice, and she is unaware of how a suspension would work.
Meanwhile S3 made headway with the public defender in Florida where Client A made the original adult guilty plea:

I spoke with _____ at the _____ County Public Defenders office. Mr. _____ is conducting research on the Client A case and we have discussed the potential of attempting to vacate Client A’s conviction in Florida. Our hope is that because Client A’s intent in providing a false identification was not to avoid the more stringent juvenile penalty that we may be able to distinguish the case law on this subject from the facts of Client A’s case.
11. 11/19 Phone call with Pinellas County Public Defenders office. The PD mentioned two cases he felt were applicable, *Wade v. State*, 184 S.2nd 462 and *Smith v. State* 345 S.2nd 1080. *Wade* is from the 2nd district court of appeals, the district in which Pinellas County is located. The PD said he would continue to research this matter.

**Figure 54 Fall Breakdown Analysis 11.**

S4 contacted an expert who stated that suspending the dependency petition may have no actual written basis in law:
MEMORANDUM

TO:       File
FROM:     S4
DATE:     November 24, 2004
RE:       Phone Call with Juvenile Law Center

Today I spoke with the Juvenile Law Center. She was very helpful, and she had some great suggestions about how we may be able to argue against _____ County’s policy of suspending dependency files when there are criminal proceedings pending.

I asked if she was familiar with _____’s policy of suspending dependency petitions when a child had criminal problems. She said that she was not familiar with this practice, but she said that it may be a valid policy because once a child is being held in the custody of the criminal system, that child technically has supervision. However, she said that this practice is merely based on policy, and the Juvenile Act does not call for this procedure.

She suggested we argue that Client A still fits into the definition of a dependent child under the Juvenile Act, and therefore, his dependency petition should not have been suspended. We can also argue that there is no basis within that law for such a suspension. Jenny mentioned a case, *In re Deanna S.*, 422 Pa. Super. 439, which she said may be helpful, but she noted not to cite this case.

She also told me that she has contacts with CYS in _____ County, and she would work on establishing a contact for us who may be reasonable.

The same source emailed a copy of the case to S4.

S4:

I have pasted the case below. It is just a case to be aware of, but no one ever cites it and I’m not sure that you should raise it if no one else does. In addition, I am not sure that it fits your situation: Your youth has not been adjudicated delinquent or convicted of a crime. No section of juvenile court has jurisdiction of him and he still is a child under the Juvenile Act. You may want to review the definition of dependent child in the Juvenile Act and try to argue that he falls within the definition. I will try to get
more contact information for you about ____ Co. on Monday. Have a good holiday.

422 Pa.Super. 439, 619 A.2d 758

Superior Court of Pennsylvania.
In re: DEANNA S., A Minor.

Appeal was taken from order of the Court of Common Pleas, Allegheny County, Juvenile Division, No. 151 5-87 HIST No.27337, Strassburger, J., closing case of dependent child. The Superior Court, No. 884 Pittsburgh 1992, Tamilia, J., held that: (1) “removed from the jurisdiction of the court” within meaning of statute requiring disposition review hearings until dependent child is returned home or removed from jurisdiction of court cannot mean that jurisdiction of court or “children and youth services” is ousted simply by child avoiding apprehension or running away, and (2) closing of case as to “children and youth services” was appropriate after court retained jurisdiction over child as delinquent. Affirmed.
S4 did a Lexis search for the In re Deanna S. case, and Shepardized it. She also followed a document link from the Deanna S. case to a statute, 42, Pa.C.S. §6351. However, the statute did not directly address their issue.  

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**Objective:** Have Client A Declared Dependent to Obtain Special Immigrant Juvenile (SIJ) Status

**Answer Question:** Why does delinquency Preclude Dependency?

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§ 6351. Disposition of dependent child

**(a) General rule.**—If the child is found to be a dependent child the court may make any of the following orders of disposition best suited to the safety, protection and physical, mental, and moral welfare of the child...
S3 wrote a motion to re-open the suspended dependency petition, which the next group of students followed up on.
S3 then had a last (depressing) call with Client A’s public defender,

******The public defender said that Client A still has no intention of taking a plea. He felt that the deal would be an offer to avoid serving consecutive sentences. He also mentioned that Client A has written multiple letters complaining about the public defender. I asked the public defender about this and he said that this is “the way it goes” with dealing with violent criminals. Needless to say, it seems like the relationship between the two is not good.

Finally, I discussed the possibility of Client A being charged as an adult even if our efforts in Florida are not successful. He didn’t have the answer, but from what I already knew, and what the public defender added, it seems possible that Client A could still be charged as an adult. Certain offenses allow the Prosecutor to “Direct File” into the adult system. I have to believe that this is not such a case. If it were, I image

15. 12/11/Memo “I felt that I should address the filing of a second motion before the term expires. I have created the basic framework of the motion with the introduction, basic background, and prayer for relief.”

Figure 57 Fall Breakdown Analysis 15.
the prosecutor would not have used “once an adult, always an adult” to prosecute Client A as an adult. Assuming this was not a “Direct File” offense, it still remains possible that Client A could be “certified” as an adult by the prosecution, at which point the burden would shift to the defendant to show that he should NOT be charged as an adult.******

16. 12/13 Phone call with Client A’s Public Defender. The PD claims “Certain offenses allow the Prosecutor to “Direct File” into the adult system. I have to believe that this is not such a case. If it were, I imagine the prosecutor would not have used “once an adult, always an adult” to prosecute Client A as an adult.”

Figure 58 Fall Breakdown Analysis 16.

The students ended the semester with a transfer memo, describing their progress over the course of the semester, the immediate steps that needed to be taken, and their revised legal theory:
Transfer Memo for Client A
Date: 12/20/04
From: S4 and S3

Immediate Action to be Taken
• Motion regarding suspension needs to be filed with ____ County-we are planning on working on this at the beginning of the semester.
• Follow up with Juvenile Law Center about getting in touch with someone reasonable at ____ County CYS. Her contact information is listed on the contact sheet. See memo in activity file.
• Contact Client A’s public defender, to see if another motion for continuance was granted. Client A was scheduled for a pre-trial hearing on December 22, 2004.
• Continue working with the _____ County Public Defenders Office. _____ has been our contact person. However, Mr. ____ has been out of the office since December 13 for surgery. We expect his return in mid-January. The exact course of action that needs to be taken will likely be affected by more recent developments.

[Criminal Case Omitted]

Criminal Case

Client A was charged as an adult in ____ County under the “once and adult, always an adult” statute. However, we felt that Client A did not fall squarely within the requirements of the applicable case law. The policy behind the “once an adult, always an adult” law is to deter a juvenile from pleading as an adult to avoid stiffer juvenile penalties. Our theory was that Client A did not plead as an adult with the purpose of gaining a lesser sentence. Client A did use an identification that said he was 18 years of age during his criminal trial in Florida. However, Client A used the false identification to obtain employment, because of his age and immigration statutes. We believe from our conversation with Client A, that at no point during the criminal proceeding did the Florida Court know that his identification was false and that he was not 18 years of age. Client A told us that the DHS agents were the first to question his age and identity after he was placed in detention.

If Client A’s adult conviction in Florida could be vacated for a lack of jurisdiction, we presume that he could no longer be charged as an adult in Pennsylvania. In an effort to learn more about the circumstances surrounding Client A’s conviction in Florida we contacted the ____ County Public Defenders _____. However, the public defender who represented Client A was no longer working for ____ County. We first
spoke with the head of Client A’s former PD’s division. After explaining our theory to Mr. ____ he assigned a lawyer to the case.

_____ was assigned to looking into the possibility of vacating the Florida conviction for lack of jurisdiction. We spoke with Mr. ____ often, and he was very willing to make an effort to vacate the case. Mr. ____ was sent copies of Client A’s birth documents, and last we spoke was hoping to get in contact with the public defender in ____.

The possibility of having Client A’s conviction vacated was very promising. However, the public defender went on vacation in early December. Mr. ____ left a message for the public defender before he went on vacation, which he did not return until after his vacation. In an incredible unfortunate turn of events, Mr. ____ went on extended leave to get surgery done the same day the public defender returned from vacation. Presently, we are not sure who is handling Client A’s case in Florida during Mr. ____'s absence, or if anyone is handling it at all. It is our feeling that we were very lucky to get the amount of attention we did from Mr. ____, and it is certainly possible that given his absence (and the public defender's failure to contact him) that we have lost our chance at obtaining a vacation of the Florida verdict. By the time Mr. ____ returns Client A’s trial may already begin in Pennsylvania. We contacted the ____ County PD again, but the person we spoke with was not particularly helpful. We were promised a return phone call, which we did not receive. If the public defender obtained a second continuance we may have a chance to pursue vacating the Florida conviction. However, we are not sure if the continuance was obtained.

**Dependency Case**

Because of Client A’s pending criminal charges, ____ County has suspended Client A’s dependency petition. We have received no documentation about the suspension, we were only informed of it over the telephone. Suspension of a dependency case due to criminal charges is not a practice authorized in the Juvenile Code and there is little case law on this topic. However, it appears to be a common court policy. Please see memos in the activity file regarding our conversations with attorneys in the area who are familiar with this practice. We are planning on filing a motion in January 2005 regarding this suspension.

A major hurdle has been our denial of access to Client A’s dependency file in ____ County. On July 12, 2004, clinic students traveled to ____ County to look at Client A’s file, and they were told that only the instructor, the attorney of record, may access the file. Next, the office manager from the Clerk of the Courts office told ____ that in order for student attorneys to access files, they need prior approval from the
judge. In October 2004, we asked again for permission to see the file, and we were told that because it is a suspended juvenile case, Judge ____ has denied us, including the instructor, access to the file. On December 18, 2004 we mailed a Motion to Access File to the Clerk of Courts in ____ County. See Pleadings.

**Immigration Case**

This case was originally accepted as an asylum case. However, as the Crimes Memo explains Client A appears to be out of immigration options that would enable him to stay in the United States. If he is found guilty of any of the above mentioned felonies he will be ineligible to stay. They are all crimes of “moral turpitude.” Even if he is able to get his criminal charges dropped or if he is found not guilty, DHS will still be taking him into custody.

At a follow up meeting, S3 noted that the hardest things to research were “*what the local norms are, what the reality of the practice is.*” He still felt frustrated over the outcome of the Client A case. At the point of the interview, the case was suspended with no access to the file.

He indicated that he did eventually get in touch with the Public Defender in Florida regarding the adult guilty plea. The PD noted that the “once an adult” caselaw was premised on the fact that many juvenile delinquents who are close to their majority will knowingly plead as an adult to avoid a stiffer juvenile sentence. However, the PD did not think that this was the circumstance in this particular case.

When asked about what were the sources which he most relied on to do his research, his answer was surprising. He stated that “most of my stuff came from the library.” In particular, from books like Kurzban's, which the instructor had emphasized (later on he clarified that he meant the clinic library). However, he noted that a lot of the tasks he
engaged in did not require substantive “research” of the type we teach in law school – to support the writing of an appellate brief, for example. Many of the activities he engaged in were more “transactional” in nature, such as filling out forms and writing letters. At an additional followup session, I asked the students if there were topics which should be added to the 1L legal research class. The student noted that civil pretrial topics should be included. S3 stated:

I don't think the research class is bad but it is very introductory. Talking to the courts we found that some things we looked up may have been the answer but may not have been the way that people actually did it. It seemed to be more like practice than law.

When confronted with the observation that it seemed like you did just as much talking to people as they did looking things up S4 responded, “With people you could at least get an idea of what it is you are supposed to do.” When asked “where did you get the answers, books, calling up experts, electronic databases?” S4 again replied: “Everything we did was call this person, call that person. They were the ones who told you really what was going on.” S3 continued:

...it was kind of easier to do things that way. You just don't know where to begin if you go through a computer. Finding a statute on Westlaw was not fun. I don't know. It's just a lot easier to learn the correct practice.

When asked about whether they went to the main law library to research their topics, S4 stated, “I did not come to this library at all.” “I didn't either really”, S3 said. S4 continued:

At least with the clinic library you had to hand everything that you might need. You could go in and say- “Oh- there is a worker's comp book.” You did not have to try to figure out where the worker's comp books might be!
Examining how legal theory was created in a situation where there was no clear-cut controlling authority shows the complex processes of design, discovery, learning, and collaboration knowledge building that occur as part of legal research. In this “no law” environment, many different types of memory were consulted to solve their information problems, including individual memory, organizational memory, and group memory. Students tended to consult more formal sources of information, such as treatises and journal articles, via electronic databases or the local books in the clinics known as the “clinic library.”

The main law school library was seldom used by the clinic students. If an answer could not be easily obtained in formal sources, the students consulted experts from a “small world” consisting of members of the Villanova Law community and individuals and organizations thought of as “friends of the clinic.” Email and listservs were frequently used to obtain expert assistance. Some students tended to forego formal sources of information altogether in favor of a more collaborative approach.
VI. Analysis- Information behavior models and the law school clinic

The third research question asks whether existing models of information behavior accurately reflect information seeking and use in the setting of a law clinic, and if not, why not. This, by far, is the most difficult question to answer. Many different types of information behavior seem to be taking place within the overall Sense-Making process. There are many theories that might apply to the clinic's problem solving processes. Information behavior theories tend to come from one of two sources. They are either 1) specifically developed within the field of information behavior (sometimes based upon theories from the sciences, sometimes not) or 2) taken directly from theories in social science, anthropology, psychology, etc. Both the Discovering Information in Context approach in general and Activity Theory in particular allow for the consideration of multiple theories and models. Using a discovery approach we can move from theory, to method, and then come back to the consideration new theory.

In general, theories and models in information behavior research take into account one or all of the following dimensions: 1) Social (group) or 2) Individual (Cognitive viewpoint). The affective dimension may be applied to either. There is some debate over whether information behavior should be seen from either the cognitive perspective on one hand, or the social perspective on the other. Prekop (2002) in his study of collaborative information seeking states that “While many different models of information seeking
have been proposed … implicit in most of them is the assumption that the information seeker is an individual.” (Prekop, 2002, p. 553)

While Dervin recognizes cultural factors, she focuses on the individual as the focal point of cognition. “Sense-making does assume that the individual is situated at cultural/historical moments in time-space and that culture, history, and institutions define much of the world within which the individual lives.” She continues by saying, “Nevertheless sense-making also assumes that the individual's relationship to these moments and the structures that define them is always a matter of self-construction, no matter how nonindividualistic the person or the time-space may seem.” To Dervin, “Structure is energized by, maintained, riefied, changed, and created by individual acts of communicating.” (Dervin, 1992, p. 62) Dervin in her later work explored the more social and cultural aspects of Sense-Making, but it is still rooted in the individual act of communication.

1. Memory: a common factor

Information behavior theories are all quite varied, and it is difficult at first glance to see how they might collectively shed light on the information behavior observed in the clinic. Why some information behavior theories might “fit” what occurred in the clinic and some might not depends upon the type of thought processes they focus upon. Wilson (2008, p. 120) notes that Activity Theory was originally proposed as “a theory of human consciousness and as an explanation of the nature of human behavior.” We have seen in this study that Activity Theory can make more visible how an individual can make choices between various information sources. However, “information sources” can also
be seen in another light. Vygotsky’s original research involved the study of the development of memory and cognition. Further work on Activity Theory and memory has been done by researchers such as Scribner and Beach (1993) and Billet (1998). Scribner and Beach (1993, p. 187) note that: “Activities may be as diverse as work, play and education (among others) but all have in common the characteristics that they call for an integration of mental and behavioral processes directed at satisfying specific goals.” They state that the Activity Theory perspective of memory is both social and cognitive, one which cannot be separated from the other. The nodes of the Activity Theory triangle could be seen as different types of memory – individual, collective, and memory as represented in external artifacts. Regardless of whether information behavior theories are viewed from the perspective of Activity Theory, a common factor of both Activity Theory and the more traditional information behavior theories is how they explore various aspects of human memory, both individual and collective. While theories with an individual focus such as mental models were relevant within the context of the clinic, theories with a more collective focus such as Activity Theory and Chatman’s Small Worlds theory better explained the observations as a whole.

2. What is memory?

Activity Theory, due to its focus on the nature of human consciousness allows reflection upon the nature of human consciousness and human memory. This in turn can potentially lead to the conception of new theory, as well as a reconsideration of existing models and theories. Donald Norman in his 1982 book, _Learning and Memory_, states that “To remember is to have managed three things successfully: the acquisition,
retention, and retrieval of information. Failure to remember means failure at one of these three things.” (Norman, 1982, p. 2) There are different types of memory. On the individual level, input into memory is usually termed as short term memory and long term memory. Simon (1996, p.87) describes the traditional approach to human memory as an information processor. Simon states that in order to examine the problem solving process, one must have an adequate understanding of the concept of memory.

Simon (1996, p. 88) describes long-term memory as a type of book or library. Simon states that:

When a domain reaches a point where the knowledge for skillful professional practice cannot be acquired in a decade, more or less, then several adaptive developments are likely to occur. Specialization will usually increase (as it has, for example, in medicine), and practitioners will make increasing use of books and other external reference aids in their work. (Simon, 1996, p. 92)

Norman (1988) writes about a phenomenon he describes as “knowledge in the head and in the world.” He states that, “not all of the knowledge required for precise behavior has to be in the head. It can be distributed - partly in the head, partly in the world, and partly in the constraints of the world” (p.54-55) Vygotsky argued that memory was to a great extent the “internalization” of external stimuli. More recent researchers such as Zhang (1997) have argued that the internal mind is a reflection of external representations. Peter H. Jones, writing from the perspective of collaborative work, notes that in artifact analysis there are two types of artifacts. Jones et. al. (2005) note that a physical artifact like an article can be on the one hand an external representation that is internalized by means such as reading and note taking (Jones et al., 2005, p. 72)
In the information processor model of cognition there are limits to how much information can be processed at one time. (Miller, 1965; Norman, 1988; Simon, 1996) However, some have argued that humans evolved social structures to augment the limits of their individual minds. Based upon a literature review, Mary E. Brown (Brown, 1991) characterized information seeking as a developmental behavior which improved throughout the life of the individual. She defines information-seeking as “a goal-driven activity in which needs are satisfied through problem-solving, decision-making, or resource allocation.” Although she recognizes the context of information behavior, in terms of the “self,” “roles,” and “environment,” she sees human cognition and memory in the more rationalistic perspective of stimuli and response. She notes that “Once stimuli have gained cognitive attention, they are represented in memory as thoughts. Received thoughts may be used immediately or stored for later evaluation and use. Consideration of thoughts, however, are limited in number that can be deliberated at any one time due to the limited capacities of memories” (Brown, 1991, p. 10) Marchionini (1995) notes that:

Material resources that make up the personal information infrastructure include people, books, computers, telecommunication lines, and all the other tangible things we use to gather, generate, manage, and communicate information...These physical components of our personal information infrastructures are most readily affected by sociological and technological developments. To augment our memories, we accumulate huge collections of paper covered with relatively permanent, visually accessible symbols and marks...To acquire new information, we maintain personal reference collections, hire clerical support staff, nurture networks of colleagues, contract with research companies, and visit libraries. All these objects, people, communication channels and strategies are part of a personal support information infrastructure that we use to accomplish our goals. (p. 14)
Amanda Spink, Charles Cole, and James Currier have written on the evolution of information seeking in the light of general human evolution (Spink & Cole, 2007; Spink & Currier, 2005; Spink & Currier, 2006). Also see Bates (2005a).

Stahl (2006) writes about a similar process from the perspective of collaborative knowledge building. Stahl writes that:

Collaborative learning overcomes the limitations of the individual mind. When an individual builds knowledge, one idea leads to another by following mental associations of concepts. When this takes place in a group, the idea is expressed in sentences or utterances, with the concepts expressed in words or phrases...mental processes can be understood as an internalization of more primary socio-linguistic processes. That is, meanings are built up in discourse-or in internalized dialogue- and then are interpreted from the individual perspectives of the group participants. (Stahl, 2006, p.299)

F. Allan Hanson used as a case study the impact of electronic information systems on the law to argue the case for a theory of human cognition he called the “New Superorganic.” The “Superorganic” view of human cognition includes elements of both human and artificial intelligence. Hanson (2004) states that memory plays a special role in his conception of the “Superorganic:”

…there must be procedures for processing information: storing information in memory, retrieving information from memory, and organizing, manipulating, and analyzing information in various ways. Information processing is carried out by ‘intelligence.’ Many kinds of beings have memory and process information, including animals and plants. Here we are interested in just two kinds of memory and intelligence. ‘Human memory’ holds information in human minds, while ‘artificial memory’ refers to other repositories that store information: handwritten and printed texts, graphic images, electronic databases, and so on. (Hanson, 2004, p.2)
Information Systems have been seen as extensions to memory. Gregory Newby (2001) differentiated between what he termed the “cognitive space” of humans and the “information space” of information systems. To bridge the gap between these two “spaces,” he proposed “extensions to memory” as a long-range goal for information systems. His idea was based upon B.C. Brook's landmark 1975 article about the fundamental problems of information science. (Newby, 2001)

**a) Organizational Memory**

As we saw above, many of the breakdowns observed involved failures of the clinic's filing system. Organizational memory has connections with knowledge management, learning organizations (Senge, 1990), groupware, and computer supported cooperative work. According to Atwood et.al. (2002), there is no one definition of organizational memory: “In the most general sense, organizational memory is concerned with being able to reuse an organization's experience.” He notes that the forms of organizational memory are as varied as its definitions. Organizational memory can manifest in any number of forms. Conklin (1996) views organizational memory from the perspective of knowledge management, stating, “knowledge is the key asset of the knowledge organization. Organizational memory extends and amplifies this asset by capturing, organizing, disseminating, and reusing the knowledge created by its employees.” (Conklin, 1996)

This process need not involve the use of technology. Regli et al. (2000) state in a review of Design Rationale Systems that the concept is not new. In fact, organizations over the years have captured information in many ways, such as individual memory, sticky notes
and bulletin boards. (p.230) Solomon (1997b) considers the “memory” of organizations in terms of Sense-Making. Solomon notes that:

Organizations make sense of their current situation by looking backward and revisiting past actions and their success. This retrospective look limits what aspects of the past are recalled as it is anchored in the current situation. Thus, memory of the past is limited both by what has been recorded and by the current situation. (p. 1110)

Information behavior models such as Environmental Scanning (Auster & Choo, 1994), the Human Information Seeking framework of Choo et. al. (2000), and the Ellis (1989, Ellis et.al. 1993) search process model all take into account organizational aspects of human memory.

b) Collective Memory (Social or Group)

There are many theories of philosophy, psychology, and communication which touch on the social aspects of human cognition. Gerry Stahl describes several theories which operate from within a more social perspective, such as Collaborative Knowledge Building (Stahl), Social Psychology, Distributed Cognition (Hutchins), Situated Learning (Suchman), Zone of Proximal Development (Vygotsky), Activity Theory (Vygotsky), and Ethnomethodology. Others include communities of practice (Lave and Wenger) and group cognition (Stahl).

Gerry Stahl has written extensively in the area of social and group cognition. He states that "Collaborative discourse is situated in the shared understanding of group members, which in turn is historically, socially, and culturally situated.” Stahl (2006, p. 292) Stahl notes that, “While the concept of group cognition that I develop is closely related to
findings from situated cognition, dialogic theory, symbolic interactions, ethn meth odology and social psychology, I think that my focus on small-group collaboration casts it in a distinctive light particularly relevant to CSCL.” (Stahl, 2006, p. 7)

Stahl (2006, p. 353) states that the concept of “common ground” is the basis for understanding in a small group setting. Stahl set forth a Model of Collaborative Knowledge-Building, which takes into account individual cognition, group activities and knowledge artifacts, which he describes as “a model of learning as a social process incorporating multiple distinguishable phases that constitute a cycle of personal and social knowledge-building. It explicitly considers the relationship of processes associated with individual minds to those considered to be socio-cultural.” (p.201) See image below (from Stahl, 2006, p. 327):
Stahl represents “activities contributing to social knowledge-building” as comprising individual cognition, group activities, as well as a “physical context,” consisting of artifacts, a “community's cultural context,” and a “societal context.”

3. Information need and memory

Information need theories have tended toward the individual, cognitive viewpoint. In information science, user need is seen as the triggering event for information behavior. It is described as a gap, lack, want, problem, or as an anomalous state of knowledge.
Taylor (1962) stated that there are four levels of information need, visceral (actual but unexpressed), conscious, formalized need (actual statement), compromised need – a question presented to information system p. 182. Childers (1975, p.37), saw information need in terms of energy, which may or may not lead to activity. He states that “Considering all people, there are two kinds of information needs: kinetic and potential. Kinetic needs are the ones dictated by a given situation or condition in the life of the individual. They move and change from moment to moment. If a kinetic need is a felt one, the individual may try to respond to it by seeking out information that will correct a specific problem, alter a particular reality.” (Childers, 1975, p.36)

Potential needs are more long-term in nature. Childers states: “Potential needs, on the other hand, are only loosely defined by the present or short range realities. Instead, they are determined by the longer range anticipations of the individual. To a large extent, they remain unconscious, hidden under lawyers of attitudes, impulses and values that influence the behavior-- and specifically the information-related behavior-- of the individual.” (Childers, 1975, p. 36-37) Childers describes potential need as “just in case” reasoning, while kinetic needs are those which require action “right now.” Childers notes that “Information acquired in response to a potential information need may never be put into action. And, being generally long-range in nature, a potential need can be expected to last somewhat longer than a kinetic need.” (Childers, 1975, p. 37) These two types of need seem to correspond to short term and long term memory from the cognitive standpoint.
The concept of a memory deficit can be seen in the Anomalous State of Knowledge (ASK) theory (Belkin, 1980) and Marchionini’s view of information need as a short term memory gap. (Marchionini et al., 1993) Gross’s theory of Imposed Query touches on more collaborative aspects of information need. She states that “there are many situations where “people are seeking information not because they have identified an information need themselves, but because they have been set on that course by another.” Gross (1995, p. 236)

4. Foraging and ecological perspectives

Some researchers view information behavior from an ecological standpoint. People may “forage” from one type of memory to another to satisfy their information needs. In the Berrypicking metaphor (Bates, 1989), searching information systems is likened to picking berries in the woods. As the search progresses, the nature of the problem may change. Nardi and O’day (1999), in their book, *Information Ecologies*, describe “engaged interactions among people and advanced information technologies” as “information ecologies.” (p.24) They state that “Each of these ecologies is different from the others in important ways. Each has something unique to teach us, just as we learn different things about biology from a coral atoll, a high desert, a coniferous forest…” (Nardi & O’Day, 1999, p.24)

Pirolli & Card (1995) describe information foraging: “This approach considers the adaptiveness of human-system designs in the context of the information ecologies in which tasks are performed.” Pirolli (2003) defines information foraging and its companion concept, “information scent.” He states that “Information-foraging theory
deals with understanding how user strategies and technologies for information seeking, gathering, and consumption are adapted to the flux of information in the environment. Information scent concerns the user's use of environmental cues in judging information sources and navigating through information spaces.” (p. 158)

Foster (2004) also seems to describe a type of “foraging” process, in which the person goes from one type of memory to another. Foster focused on the non-linear aspects of information behavior, “The behavioral patterns are analogous to an artist’s palette, in which activities remain available throughout the course of information-seeking. In viewing the processes in this way, neither start nor finish points are fixed, and each process may be repeated or lead to any other until either the query or context determine that information-seeking can end. The interactivity and shifts described by the model show information-seeking to be nonlinear, dynamic, holistic, and flowing.” (p. 228)

5. Incorporating individual and social aspects of memory in information behavior

Ironically some of the older information behavior theories incorporate both individual and social aspects as part of their starting assumption, as well as provide for organizational aspects of human memory. Taylor’s (1968) Pre-negotiation decisions by the Inquirer framework takes into account consulting personal files, collaboration (ask a colleague), and mediation (go to a library- often as a last resort!) Paisley’s (1968) conceptual framework for the information seeking behavior of scientists was that of “The
Scientist within Systems.” Paisley presents information in a series of environments represented by eight concentric rings, the closest is the user himself. Paisley details:

(1) the scientist within his culture… Somewhat more transitory is (2) the scientist within a political system… "A system that is both within and beyond political systems and the culture, but smaller in number of people affective is (3) the scientist within a membership group… System (4) is the scientist within a reference group, which includes other scientists with similar specialization, similar training, excellence of work, or other characteristics…A subsystem of (4) is (5) the scientist within an invisible college…(6) the scientist within a formal organization integrates several status levels at the same location….A subsystem of (6) is (7) the scientist within a work team. This is a most important information system. It is tuned to the scientist's problems. It documents the history of its projects in an informal and idiomatic way. Knowing what he does not need to be told, the scientist's work team can provide him with rich, nonredundant information through conversation….In this regresss of social and psychological systems, we come to (8) the scientist within his own head. This is the system of motivation, of intelligence and creativity, of cognitive structure, of perceived relevance of information inputs and uses of information outputs. Ultimately, all other systems support this one… we must also consider (9) the scientist within a legal/economic system…[and] (10) the scientist within a formal information system—libraries… (p.4-6)

Paisley notes that “In most fields of science, the formal information system is actually a marketplace of competing information systems. It takes Olympian perspective to see that each information system finds a unique function and audience, so that--much like a commercial air service -- a network coalesces from competitive elements.” (p. 6)

Although he speaks of each of his categories as a different “system,” they could also be taken to mean different types of memory: personal, organizational, collective, cultural, information artifacts.

Krikeles (1983) noted that information search process involves a need for both information gathering and information giving. These needs can either be immediate or
deferred. If the need is not deferred, a source preference choice is made. Users can refer to internal and external sources when searching for information. Internal sources include memory, personal files and direct observation. External sources of information include direct interpersonal contact and recorded literature. Krikelas (1983) notes that there is often a strong preference for human or social sources of information over more formal means. Henefer and Fulton (2005) note that the work of Krikelas could be viewed as a turning point in information behavior studies. They state that:

Krikelas cites as examples of information gatherers, scientists or academics keeping abreast of developments in their field who will store the stimuli in personal files or their memories for future reference. However, he does extend information gathering beyond this rather specialized view to include the observation that people on a day to day basis casually engage in information gathering at some level (consciously or indeed unconsciously) and suggests that the purpose behind this type of activity is an instinctive human drive to create an array of mental constructs (referred to as a “cognitive environmental map”) to deal with uncertainty (Krikelas, 1983, p.9). While Krikelas accepts that this kind of information activity is difficult to monitor, because it is fundamentally internalized, he includes information gathering in his model, contributing a further dimension to our understanding and appreciation of human information behavior. (Henefer and Fulton, 2005, p. 226-227)

This preference for people as an information source has been a persistent one throughout the era of information behavior studies. Dervin (2001) notes that “The Sense-Making studies to date have provided confirmation for many of the general assumptions that led to the creation of the Sense-Making approach. The research has shown that people inform themselves primarily at moments of need. Given needs, people rely first on their own cognitive resources. If these are not sufficient, they reach out first to sources closest to them or those that are contacted on their habit paths...” (p.226)
Byström’s work is shaped by the cognitive view, but he also takes into account cultural groups. Byström speaks of the "Doer" as opposed to the user. Järvelin and Wilson (2003) note that based upon empirical research, Byström (1999) put forth eleven statements that could be seen as predictive statements of information behavior in complex information tasks. Byström’s first statement is: “S1: as soon as information acquisition requires an effort people as sources are more popular than documentary sources.” Generally, the more complex the problem becomes, the more likely people are to be used as information sources. (Järvelin & Wilson, 2003)

6. Memory in the law clinic

Let’s revisit what happened in the law clinic in terms of memory. No one theory took into account all of the information behaviors observed. However, models which take into account more social, organizational, and collaborative aspects of memory seemed to best reflect the information seeking and use in the law clinic. In terms of the framework of Wilson et.al. (1999), this study has examined aspects of both the user’s interaction with the interface, the user’s search process, as well as broader social and cultural aspects of researching within the law clinic environment. See graphic below:
It is argued that looking at all of three of these aspects of information behavior to the greatest extent possible is essential to obtaining a rich, robust perspective of information behavior in a given setting.

A particular characteristic of the clinic activities was that they occurred over a long period of time. Case files were used to communicate with both past students, current students, and the instructors. The memos, emails, and downloads left in the file provided a picture of the clients story as it evolved through months (or years) of legal wrangling.

Teams of students picked up the case each semester from the prior students. At the end of the semester, each team wrote a “transfer memo” stating the facts of the case, the major actions taken that semester, potential problems, and next steps. As in the real world, there was a fair amount of time pressure. Each student had two or three cases
which they were working on at the same time, similar to a real-world practitioner. Students moved through time and space- sometimes literally, as when they read Kurzban’s Immigration Law Sourcebook on the way to a client counseling session at the local prison.

Of the various information behavior theories and models discussed in this study, a very close “fit” for what happened in the clinic was Chatman’s Small Worlds theory, which deals with more social and collective aspects of memory. Although the Small Worlds approach was developed in the context of everyday information seeking of low-income people, it shares several elements with the information seeking behavior in the law school clinic. The students and instructors created a “small world” for themselves of trusted experts consisting of members of the Villanova Law community and “friends of the clinic.” Paradoxically, the “information rich” in some respects acted in a manner similar to the “information poor!”

Law students in general do not want to be seen as less capable than other law students, so they tended not to come to the library for help, but sought help from the other clinic students or a “small world” of “friends of the clinic.” Interestingly, it seemed that in the midst of their “small world,” students were bridging “gaps” in their knowledge by getting help, as they foraged through a variety of information sources. The students seemed to prefer information for a source as close to their own context as they could get, such as from “friends of the clinic” like friends of farmworkers.
Types of “helps” provided by these experts included tacit knowledge about the political workings of various local courts and agencies, redacted memos from cases they had worked on which could be relevant, as well as forwarded journal articles and cases.

When the fall students did database searches, they were not as hopeful of finding a positive result because of what the summer students had done and what the experts had told them. Even when faced with a seemingly positive database result, a student said that she “could not trust it.” This could be an example of what Chatman described as situational relevance. Chatman spoke of “situational relevance” as an element of life in a small world. Although the student found information that might have been “on point,” she tended to discount it because she saw herself in a “breakdown situation” where formal sources of legal information were not likely to be helpful. Like the janitors in Chatman’s studies (see Chatman, 1996, Chatman 2000), the student viewed herself as being unable to solve her own problem.

Another case where the students did not seem to think that they could solve a problem on their own was the case of Client D. Include examples from Client D, the insurance contract case. In this case there was no breakdown situation. Instead, the students chose a collaborative stance from the beginning of the research process. In the “small world” of the clinic, the traditional legal research culture of top-down, hierarchical authority had been replaced with a culture based on personal trust. In this bottom-up legal research framework, sources which would not ordinarily be considered as “authority” were actively used to solve research problems. Some students seemed to avoid research altogether if they could.
In the case of Client A, the immigrant juvenile rape case, mass media was used as a source of information. For example, emails about National Geographic specials on Columbia and a Marie Claire magazine article on street children in Bogata were found in the client files. Again in the case of Client A, articles shared via listserv provided information about the unintended consequences of plea bargains and special immigrant juvenile status and useful defense checklists. Some information found in the client A files were more “FYI” types of information about the general migrant farmworker issue in the United States which had been forwarded by “friends of the clinic.”

Chatman notes that in a “small world,” people engaged in secrecy and deception with respect to information behavior because “they wanted to give the appearance of normalcy. That is, they did not want to be viewed as somehow less capable than their neighbors in coping with life-stresses.” (Chatman, 2000, p. 6) Students in the law clinic also engaged in deception. In one instance they did not tell one expert of a mutually known contact in order to get what they considered to be unbiased information. For example, in one memo in the Client A case, a student wrote

> PD [public defender, ed.] _____ is a “good buddy” of hers and she may contact her as well. We didn't mention any of our encounters with [the public defender] to____. We mentioned that the public defender is the one who told us that he had no chance of dependency and we were just trying to figure out why.

But even Chatman’s small worlds viewpoint did not explain all of the behaviors in the clinic, such as the heavy reliance on organizational memory. It could, however, be seen as an offshoot of situational relevance or part of Huotari & Chatman’s 2001 expansion of her conception of small worlds to the organizational context.
Tacit Knowledge

In various meetings the instructor would impart tacit knowledge such as: “The family court judge hates this case and wants to get rid of it” (In the case of client A). As noted above, the Client A case was solved via more social collaboration and tacit knowledge. Sometimes, just finding the applicable court rules was a challenge. Some courts publish their rules to a greater extent than others. In the case of Client A, the students had an initial challenge in finding the ____ County Court Rules (a commercial online service was later subscribed to which contained the rules). See the email from the acquisitions librarian below:

Figure 61 E-mail Re: Acquisition of ____ County Court Rules

Zone of Proximal Development/ Zone of Intervention

Vygotsky’s theories arose from his work in the area of developmental psychology. McKechnie (2005) notes that “Vygotsky postulated that how cognitive skills were first practiced by children in social interaction with a more experienced individual until the
skill is mastered and internalized and the child is able to exercise the skill independently.” (McKechnie, 2005, p. 373) This concept is known as the zone of proximal development. Kuhlthau's (1994) “zones of intervention” concept, which describes areas where the user needs the help of another to move ahead, is a concept based on Vygotsky's zone of proximal development. The entire clinical experience could be seen as a “zone of intervention,” or zone of proximal development, where the clinical instructor helped the students to advance to a more expert level of cognition.

This phenomenon could also be seen in terms of what Lave & Wenger (1991) called “Legitimate Peripheral Participation.” In the book Communities of Practice, Wenger states that: “Peripherality provides an approximation of full participation that gives exposure to actual practice. It can be achieved in various ways, including lessened intensity, lessened risk, special assistance, lessened cost of error, close supervision, or lessened production pressures.” (p. 100)

This collaborative outlook was reflected not only in the relations between the clinic team members but in their relationships with clients and other attorneys as well. The clinic team members took special care to establish “Common Ground” (Stahl, 2006) with their clients and colleagues. In a 2003 memo, the student team at that time wrote:

Our first goal was to develop a trusting working relationship with Client A and his family in. We believe we succeeded in this because both Client A and his sister were able to open up and disclose crucial details of their lives to us.

In a letter to Client A's public defender, the clinic instructor tried to frame herself in a “trusty helper” role:
I welcome the chance to speak with you...I realize that you are busy and I do not want to interfere with your work. My intention is to offer assistance and to make you aware of Client A’s immigration case. I would appreciate your consideration...

When they did NOT establish this “Common Ground” problems occurred. For example, a fractured relationship with CYS (the Pennsylvania Children and Youth Services) department resulted in not being able to obtain Client A's court files for several months.

**Organizational Memory in the Clinic**

Organizational memory was broadly used by the clinic participants. They used their client files to communicate both with current team members as well as with future clinic students. As the clinic did not use knowledge management/ document management programs such as Abacus Law, Amicus Attorney, WestKM or Lexis Total Search, paper files or shared network drives were employed. As a result of the study, students in the law clinic were asked to write research memos and place more annotations in the research file, which was more closely regulated.

Oddly, Taylor (1968) very closely reflected what went on in the law clinic. It is an oldie, but it fits pretty well what happened in the clinic. Students would first check their organizational memory/files before turning to other sources of information which could include people and often lastly, the library. Krikelas (1983) set forth a similar source preference pattern. Considered from the point of view of memory, both Talyor (1968) and Krikelas (1983) describe a particular cognitive structure used for a specific type of research task.
Ellis’ (1989), and Ellis et.al. (1993) model of information seeking broadly fits the activities of the clinic, with respect to a starting stage, with an initial search for information, monitoring and current awareness activities, and particularly with information managing, or the more organizational memory aspects of the clinic activities. However, Ellis' model did not take into account the more social and collaborative aspects of what went on in the clinic.

The Affective Dimension

From a general Sense-Making perspective, its general description of a perception of a gap and seeking help to close the gap does seem to fit what happened in the clinic. As the students proceeded on their journey to solve the legal problems put before them they experienced frustration, relief, and even anger (to the point of one student literally throwing a file across the room!) as they encountered barriers and “gaps.”

Solomon (1997b) noted that affective signals of frustration are key indicators of a breakdown situation. (p.1120) There was a breakdown - literally! - in one instance where a student threw a file across the room during a meeting. At some of the Client A meetings in particular, students were visibly dispirited. In search sessions, heavy sighs, or statements like “I’m not good at research” or “I’m so slow at research,” usually indicated when breakdown situations were apparent.

Students did express feelings of decreasing frustration, as posited by Kuhlthau in her information search process model (1993b, 2004). In one specific instance, a professor asked a student if she was feeling better now that she was advancing through the legal
research process. The student clearly gained more confidence as the uncertainty decreased. As the uncertainty decreased, they were less frustrated. However they also seemed to thrive in the midst of uncertainty. This may be a characteristic of the legal domain specifically, as was noted by Cole and Kuhlthau and Kuhlthau and Tama in a studies of practicing attorneys. As law is taught situationally, it may engender a higher tolerance of uncertainty.

At first glance, Activity Theory does not appear to take into account the affective dimension, at least not explicitly. However, Kaptelinin and Nardi (2006) argue that Activity Theory does indeed encompass affective aspects of behavior. They state that:

Computer users are not just information processing devices, but individuals striving to achieve their goals. Their interests, emotions, hopes, passions, fears, and frustrations are important and powerful factors in choosing, learning, and using a technology. (p. 78)

Kaptelinin and Nardi argue that “objects are constructed, instantiated, and linked to one another, through relations of power and passion among actors.” (p. 154) From this perspective then, as much can be gleaned from the lines of Activity Theory as the nodes. The lines represent affective dimensions of “power and passion” which help to determine whether the subject will choose one node or another. In the current study, students who ran into a breakdown situation using mediating tools expressed frustration and explored other sources of information, particularly members of their community or “small world.”
Individual Memory and Learning

However individual memory also played a role. In one instance you could clearly see the instructor outlining her mental picture, or taxonomy, of the issues when she gave instructions on the Client A case. At the 6/7/2004 meeting the instructor framed two separate areas for research-immigration law and family law:

Special immigrant juvenile visa

Asylum- Underneath this would be withholding of removal/restriction on removal (easier to get, but you don't get as much) and the convention against torture (but we have a weak asylum claim, it is barred because of the criminal case).

Voluntary departure (ask for if lose). Lets him go without a deportation on his record if he pays for his own airline ticket.

What kinds of charges would bar him from the above benefits?

Family Law

In terms of dependency, why can't he get it now? Is he barred forever because of his arrest? Because of fines due upon arrest?

The students did seem to be taking a berrypicking or foraging approach (although their sources was as often people as artifacts), and as they progressed, the problem situations changed as they found materials which clarified or sometimes redefined the problem. In the Client A case in particular, as the search progressed, the nature of the search could be seen to change to focus on the need to vacate a prior FL plea bargain as an adult so that Client A would be prosecuted as a juvenile in PA.

As the students used Lexis and Westlaw, they seemed to be learning about the issues they were researching. This is in line with Komlodi (2002). Several researchers have noted
the connection between learning and information seeking such as Oliver and Oliver (1997), and (Limberg, 1999). Oliver and Oliver (1997) state that “There is, however, a distinct difference between learning and information-seeking. While learning is based on information and knowledge acquisition and retention, information seeking does not necessarily pursue or lead to the retention of the information gathered.” They cite to Marchionini (1995) who states that: “Information acquired during learning is stored so that it can be recalled and used at a later time, although information acquired as a result of information seeking may be useful for a particular task and then discarded.” (p. 6)

From the perspective of the law students, as they searched Lexis and read cases and other sources online they seemed to be learning about the legal issues involved. See for example, the following portion of a think-aloud transcript for S1, a Client A summer student:

Its [ALR] is telling me the term I am looking for is aggravated felony. Defined under 8 USCA § 1101(a).

I may need to look at that and see if there is anything for juveniles and look at some case law as well.

I am going to look at the index of the article to see if there is anything specific about juveniles.

Next, I will look at statute and at the list of categories of offenses. Might as well check those out.

I tried to click on the main link. Beeped. Had to go back to the document viewer. Wanted to go to specific section, instead, the viewer give me the whole statute!

Tried a search – no docs – [“humph”] try statute again, ok, I think we are getting close to it.

OK, I found the spot that defines aggravated felony.
Just jotting a note. Another statute defines a crime of violence that this cross references...

OK, um... I want to look up the crime of violence citation because rape is not listed expect if you do it with a minor. I have a feeling it is listed in the definition of violent crimes so let’s make sure...

Connections have also been made between information seeking and collaborative learning. Stahl (2006) sees learning as central to group cognition. Stahl (2006) states that:

Learning—whether in a classroom or at a workplace—should be seen as an active process of knowledge construction by a group. A deep understanding of a topic is generally developed through critical debate among multiple perspectives and is therefore an inherently social process even if it can be internalized in an individual’s head. The development of knowledge content may be inextricably accompanied by the development of increased competence in cooperation, coordination, and collaboration skills. Collaborative learning and cooperative work thereby merge into the model of increasing participation in communities of practice. (p. 297)

In one case a chance observation was made when two students were scheduled to do an online search together. The interaction between the two students could be seen as an example of collaborative knowledge building (Stahl, 2006):

L – did you put in “affirmative duty?” I’ll write things down.

S- I went into PA state and federal cases.

L- I never use Lexis.

S- I never use Westlaw. I couldn’t tell you how to use it.

S- Should I put in “affirmative duty?”

L- We want something about writing the policy.

S- Omission, because omitted.
L – Let’s try “required question”

S – requirements!

L- required questions and requirements. OR requirements

S- 520 [results]

L- Ok, lets do.. Lets limit by auto, something

S- Well, we should probably have something in here about negligence

L – Um hm..

S- Maybe we should put something in about… [types in “insurance and negligence”]

S – 4L

L- That’s good

[scrolls cite list]

S- maybe we should read it.

L – maybe should search for negligent agent

S- how do we do that?

L – I don’t know. I never use Lexis! Just add it to the end..

S- Cut down to 3! [takes turns reading text]

S – hm

L [reads] hm

L- [writes down cite of case “Prudential Property”]

S- Goes to link [Restatement 2d of torts §299]....

As students constructed legal theories they used information artifacts and social contacts as sources of information. Students made use of mediating tools such as databases and, occasionally, books (mostly from the local clinic library). Although they are not
necessarily considered by the American Association of Law Libraries (AALL) to be authoritative, clinic students made extensive use of government agency websites, such as the USCIS, and other sources of web information.

In legal research as it is traditionally taught, database use is usually taught as an individual activity. This chance encounter hints that researchers may benefit from searching as a team. Although not much could be generalized from one or two observations, their interaction with the interface seemed to flow more smoothly with less affective signals of frustration overall than in think-aloud sessions where students searched databases in the traditional, individual manner. This tantalizing glimpse suggests that more exploration may be needed in the area of collaborative information retrieval (see Fidel, et.al., 2000) for the legal domain.

When the instructor saw that the students were encountering a barrier, in addition to experts she would often direct them to a print secondary source like Torrey & Greenberg’s *Workers’ compensation: law and practice*, Kurzban’s *Immigration Law Sourcebook*, or documents which had been forwarded such as the USCIS Field Guidance on Special Immigrant Juvenile Status Petitions.

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One student even declared at a meeting “I actually looked at books yesterday!” In a follow up meeting, the students from the client A case noted that they got a lot of their materials from the clinic “library:”

*S* At least with the clinic library you had to hand everything that you might need. You could go in and say- “Oh- there is a worker’s comp book.” You did not have to try to figure out where the worker’s comp books might be!

And, rarely, students did wind up at the library. This happened in one case where the students missed a statute of limitations issue and wanted to confirm the information given to them by one of their experts:

Observer- how often did you use the library

*S*- We kept to ourselves mostly. Only came once to the library that I can remember.

Observer-- Oh yes, the time when you did not think the expert was correct. How did you know the expert was off?

*S*- We did not know that case he emailed us was applicable. We were confused. But experts are busy, maybe he did not take the time to thoroughly read through the facts we gave him.

In that instance, there was both high risk and time pressure which had an impact on their decision to use the main law library. They also came to the law library if they did not think that “their expert” was providing accurate information.

Although it has only recently been used as an information behavior model (see Jones 2005), Activity Theory may be a closer fit to the behaviors observed in the clinic. Activity Theory was developed as a theory of human learning and memory. Tacit rules included avoiding conflict of interest and maintaining client confidentiality. The students
may consult experts or use community resources such as listservs to obtain information. Activity Theory provided an interpretive lens for the understanding of legal information behavior in the law clinic setting. One fruitful area of Activity Theory which is not present in other theories is the concept of tensions and inner contradictions. Along with situating the use of the artifact historically and in a web of activities, breakdown analysis helps to make visible tensions within the legal information Activity System.

In this example, breakdown analysis makes visible one particular inner tension within legal research – collaboration versus mediation. From past studies of legal research we know that there is a heavy reliance upon tacit, informal, collaborative sources of information from the attorney’s community of practice. As we saw above, breakdowns showed how the students in one case alternated between community and mediating tools as they attempted to construct legal theories. However, the rules and social norms for attorneys include both explicit and unwritten rules as to conflict of interest and client confidentiality which may argue against overt collaboration. The value of collaborative tools such as listservs came to the fore in the breakdown area where “there is no law.”

We can also visualize interacting activity systems, where two students on a team have a common objective but one is using mediating tools while the other is drawing upon the community for information. The law students may then create their own mediating tools, such as the casefiles and the documents within them, which might be used in the activity system of a future clinic student.

Looking back to Wilson, et.al.’s (1999) concentric circles, representing various aspects of information behavior (see Figure 4), we can see that many information behavior models
focus on a specific aspect of information behavior such as the interface, the search process, or social and cultural aspects). In contrast, Activity Theory provides a perspective which one can use to explore multiple aspects of information behavior in a broad, flexible framework. Activity Theory is a useful tool because it represents various aspects of memory as part of a design process. If you think of information behavior in terms of utilization of various types of memory, what happened in the clinic emerges as an information design process where clinic members used various aspects of memory to fit information into their context of use.
VII. Implications

This study has implications for the improvement of legal information instruction, systems and services in several areas such as improving legal research instruction and improving the design of legal information systems (including understanding why many legal artificial intelligence systems do not live up to expectations). Looking at legal information behavior in terms of activity, context, design, and discovery raises general issues of design, an “invisible substrate” of information science which has existed from its earliest days. We can speculate on the essential concept of what in fact is information in a design and discovery context. We can see similarities between the activities of the “information rich” and the “information poor.” Finally, we can explore and formulate new conceptualizations of how various information behaviors may interact as a type of memory “in the round.”

A. Tensions and contradictions in the legal activity system and their implications for improving legal research instruction and legal research systems

There are several tensions and contradictions in the areas of legal education, publication, and research that have an impact on how legal researchers use the various legal information sources at their disposal. Issues of expert and novice, stability and change, bibliographic source versus research process, print versus electronic, direct versus delegated research, mediation and collaboration, and tacit versus explicit information all
come into play when considering how to design legal research instruction and legal information sources. There is almost universal agreement for the need to improve student skills in the area of legal research. The MacCrate Report (1992) identified legal research as one of the core skills and values which are central to lawyer competence. (MacCrate, 1992, p. 157) Yet it is difficult to find direction in how to improve upon the traditional approaches of instruction. There has been fierce debate over years on whether students should be taught via a process-centered approach favored by the Wrens (Wren & Wren, 1988) or via a more traditional bibliographic-centered approach (see, for example, Berring & Heuvel, 1989). The American Association of Law Libraries (AALL) published Core Legal Research Competencies: A Compendium of Skills and Values as Defined in the ABA Macrate Report,55 but there are still periodic “eruptions” of dissatisfaction with the way that research is taught. West Publishing in 2007 published a White Paper on “Research Skills for Lawyers and Law Students,” featuring the conclusions of a roundtable of law librarians on legal research in the digital age. The roundtable noted that the ““Google Generation” associates are conditioned to search for quantity, not quality or context.” (Thomson West, 2007b, p. 3) Once again, calls were made for change.

All types of legal instruction hold at heart a basic tension between theory and practice. There is a tension between the practice approach of teaching in the law clinic and the generally accepted Socratic method of teaching legal analysis. This gap between theory and practice is of concern to many. Koo (2007) states that:

55 See http://www.aallnet.org/sis/ripssis/core.html
A large majority of lawyers perceive critical gaps between what they are taught in law schools and the skills they need in the workplace, and appropriate technologies are not being used to help close this gap...Today’s workplace demands skills that the traditional law school curriculum does not cover. Many attorneys work in complex teams distributed across multiple offices: nearly 80 percent of lawyers surveyed belong to one or more work teams, with 19 percent participating in more than five teams. Yet only 12 percent of law students report working in groups on class projects.

One of CLEA's (Clinical Legal Education Association) best practice principles is to encourage collaboration among students. (Stuckey, 2007, p. 88) However, legal research, like many other law school topics, is presented from an individual rather than a collaborative approach. Part of the frustrations with legal research and other areas of legal instruction may lie in the traditional focus on hierarchy, authority, and individual activity as opposed to taking a broader view of legal information activity to include more social and collaborative elements. Attorneys are required by ethical rules of professional responsibility to provide competent representation for their client.56 If something goes awry, it is the individual attorney who will be held responsible.

a) Collaboration versus mediation

It is not surprising then, that traditional legal research culture does not take into account collaborative aspects of information retrieval, creation, and use. While there is a strong pull to work collaboratively to solve problems (Hara, 2001; Hara & Kling, 2002), legal rules of ethics and responsibility and traditional teaching methods support more individualized search of approved hierarchical sources. Note that in Hara & Kling

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56 The American Bar Association Model Rule of Professional Conduct 1.1 states that:

"A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonable necessary for the representation."
(2002), even while some attorneys were enthusiastic about using collaboration tools such as listservs, other attorneys worried about a listserv’s threat to the notion of an attorney doing research alone.

However, the work of an attorney has never been entirely a solitary process. In her book, *Law as Architecture: Building Legal Documents*, Jill J. Ramsfield uses architecture as a metaphor for building better legal documents. She describes law as a discourse community, stating that:

> A discourse community, then, is a community within a larger culture that has created its own language, forms and traditions for communicating with each other... The way that members of the community use language serves as a means of maintaining and extending the group’s knowledge and is, in fact, epistemic or constitutive of the group's knowledge... (Ramsfield, 2000, p. 16-17)

Concepts of authority, hierarchy, and mediation are still dominant factors in the legal profession. Callister’s (2005) more expansive view of the context of legal research is still an individual one. Even his illustration of memory tools (see Figure 2) shows the individual attorney at the center of the circle. In the print universe, libraries taught a specific method of accessing information sources, that matched the print information distribution system. Kuhlthau (1991) notes that “The bibliographic paradigm is based on certainty and order, whereas users' problems are characterized by uncertainty and confusion.” (p. 361) Kuhlthau states that “There appears to be a gap between the system's traditional patterns of information provision and the user's natural process of information use.” Kuhlthau (1991, p. 361)
This study shows that it may be useful to approach legal research as a design process, in which various sources of memory (individual, organizational, social, artifacts, cultural, all play a part.) This study highlighted the importance of organizational memory in the legal research process. It is argued that legal information activity systems should be understood from the historical context of how lawyers research, how they use legal arguments in legal documents, and how they practice law. This perspective should include the collaborative context which is the often unspoken backdrop in which legal research and law practice in general take place.

Both mediation and collaborative strategies could be included in legal research methods courses which are either stand-alone or integrated into the more substantive courses. Use real-life fact patterns and situations could be used as simulations to engage students. Breakdown situations in particular could be useful in legal research instruction, as a method of teaching both theory and practice at the same time. More could be done to study the impacts of legal education approaches on the legal information behavior of novice attorneys.

Hierarchical authority may be a proven method to approach certain information tasks (such as legal research!), but it is by no means the first preference of the researcher. Legal research instructors could show the structure of the print universe (Index, Table of Contents, Footnotes, Tables of Cases and Codification), but also show both the advantages and the disadvantages of the “collaboration mode” so that students will understand how to properly take advantage of the benefits of collaboration as they move
into practice. Legal informatics, which includes information literacy, systems, policy, and law practice technology, should be integrated into all aspects of the law school curriculum. Librarians could act in partnership with the faculty and other computer staff to develop a technology curriculum that integrates a technological focus into the curriculum on a substantive level. Legal research instructors and system designers may benefit from acknowledging the more collaborative processes of law teaching, research, and practice. Maharg (2007), in a discussion of the transformation of legal education in the 21st century, states that: “We need curricula that take account of the blurring of the domains of academic and everyday work and leisure, authority and purpose, market and individual choice, knowledge-in-itself and knowledge-for-others.” Maharg advocates for use of simulations, virtual worlds, and similar technologies in law schools to promote “authentic” learning experiences. (Barton et al., 2007)

b) Stability and Change- print and electronic information sources

When a lawyer consults a Digest, or creates a custom digest on Westlaw, or Shepardizes a case to make sure that it has not been overturned, he or she is following a tradition that goes back over 100 years (Albaum, 2002). Law students are directed to research sources which adhere to an accepted hierarchy of authority, in which students cite to primary authority (cases, statutes, regulations) and use secondary authority (books, journal articles, encyclopedias) to explain and lead to primary authority.

Bob Berring notes the importance of the concept of authority in the legal research process, and writes about legal information in terms of “cognitive authority,” or the
people and sources in which we choose to place our trust. (Berring, 2000a, p.1676)

Berring states that one of the major strengths of the legal information sources of the past century was their stability. He states that:

…Legal researchers learned that certain books were authoritative and reliable. If used correctly, such sources provided "the" information. One didn't need to look behind such a publication and evaluate its worth. The process of critically judging its value had been performed long ago. The topography of legal information was so accepted, and it functioned so well, that researchers gave it little thought. (Berring, 2000a, p.1676-77)

In some ways, it could be thought that attorneys created a “small world” of trusted print information. Once information was placed in printed books it became “fixed,” and could be trusted not to change with time. (Berring, 2000a, p. 1679) Berring notes though, that the 21st century legal information infrastructure is under siege, stating that “The comfortable structure of cognitive authority that had been so central to legal information has fallen, and it can’t get up. Old tools are slipping from their pedestals while new ones are fighting for attention. Where once there was a settled landscape, there is now a battlefield.” (Berring, 2000, p.1677)

In the age of the web, the traditional hierarchy of authority has begun to break down. Nowhere in that traditional authority structure is there room for sources such as Google, Wikipedia, listservs and weblogs. Yet, a recent survey by the Biddle Law Library found that law students consult such sources on a regular basis (Biddle Law Library, 2007). Peter Martin (Martin, 2007 (Forthcoming)) notes that the American system of legal

57 For a perspective on stability and change in legal education generally see ("Vanderbilt 2007 Symposium on the Future of Legal Education," 2007). See especially Sturm and Guinier (2007), who argue that change in legal education may be slow in coming for what they see as a culture of conformity.
precedent is “inescapably affected by the information dissemination, storage, and retrieval systems available to judges, lawyers, and others who would seek to gather case law bearing on a particular issue.”

There is still ambivalence in the legal research domain about whether the impact of electronic information sources on legal research and legal authority will be a positive one. The Wrens, in their groundbreaking research manual conclude that “…the computer can't make you smarter, just faster.” (p. 135) The Wrens also put their finger on the overriding challenge of searching the commonly used legal databases as they are currently configured: “In effect, a computerized ‘descriptive word’-type search or a ‘words and phrases’ -type search requires you to anticipate what words or combinations of words will appear in the text of legal authorities which may bear on your problem.” They state that “You must think from the perspective of a judge or legislator, and try to imagine what words they would use in a decision or statute dealing with a problem like yours.” (p. 135) Discussion on the general effectiveness of and the challenges in using full text legal information retrieval systems can be found in Blair and Maron (1985), Dabney (1986), Blair (1996) and Turtle (1995). Blair (1996) notes that “There is also almost no discussion in the information retrieval literature about a general methodology for finding relevant, unretrieved documents.” (Blair, 1996, p. 9) Social groups and group cognition may provide part of the answer.

Ethan Katsh wrote about the impact of computers on the law in *Electronic information and the Transformation of the Law* (Katsh, 1989) and the sweeping changes which the
electronic format would bring to the legal domain. Katsh (1989; 1995; 1996) notes that as lawyers use new tools, they are also changed by those tools. Katsh (1996) argues that “lawyers are engaged in both a process of adaptation, as new tools displace old tools, and in a process of acculturation, as a new information environment emerges in which there are changing assumptions and expectations about the value and use of information.” (Katsh, 1996, p. 111) Some of these changes have indeed come to pass, but authors such as Nazareth Pantaloni (1994) caution that there may be more resistance to technological change within the legal profession than one might think. In a survey of the literature with respect to the implications of the effect of legal databases on the legal research process, Pantaloni noted that the legal community is still “deeply rooted in a bibliographic paradigm” (Pantaloni, 1994 p.695). Pantaloni states that:

Law created a closed system of problem-solving, a self-referential dialectic that perpetually validates itself by revalidating its past juridical acts, through citations to legal authorities, while legitimating its present acts. This is why the authority of electronic forms of legal texts is a function of its integrity vis a vis the printed text in an official reporter (which is considered more ‘trustworthy’ because it is less ‘changeable’) and the degree to which the electronic form comports with that text. Accordingly, the current provisional utility of the electronic text is a function of how well it provides bibliographic markers: volume and page numbers. (p. 697)

Some have argued that the classification system to a large extent shaped how lawyers thought about the law itself. Berring (2000b) termed this phenomena as “thinkable thoughts.” Citing the work of Star & Bowker (1999), Berring noted the “determinative power of classification systems” in the legal domain. (p. 310) Newer topics such as feminist jurisprudence and critical race theory did not emerge until lawyers had the tools to search for the law in ways other than those envisaged by the West indexers. Berring
(2000a; Berring, 2000b) credits Dan Dabney, Senior Director for Thomson Global Services with the “thinkable thoughts” concept. Dabney (2006) states that “What is not always appreciated, however, is that free-text systems impose their own limitations on thinkability. The Key Number System is limited, but then so is language itself.” (Dabney, 2006, p. 236)

Tools for finding cases at the beginning of the 20th century could be divided into three types: 1) comprehensive reporting (by far more prevalent), represented by the West Publishing, 2) selective reporting (Lawyer’s Cooperative) and 3) Bibliographic citation (Shepard’s Citations). At the dawn of the 21st century, these three methods are still major factors in the digital age of legal research. The West Digest system is embedded within the Westlaw search product, allowing topic searches from within cases or via subject browsing. Lexis uses keywords from cases to create “Lexis Headnotes,” but they are not created by human indexers, as with West headnotes. Shepard’s is a mainstay of the Lexis Service, although Westlaw has developed Keycite, a competitor citator service.

As with print sources, legal information retrieval systems were developed in the backdrop of a tradition of individual research and hierarchical authority (as opposed to collaboration and group knowledge building). One of the first legal information retrieval interfaces was the HORTY system (Bing, 1984; Bing, 2007; Harrington, 1985). Developed in the late 1950’s by the University of Pittsburgh Health Law Center, it was an electronic library (a precursor to today’s digital libraries) of public health statutes from
all fifty states,\footnote{Ironically, the complete set of Pennsylvania statutes did not become freely available on the internet until the year 2007.} plus a few United States Supreme court cases. It was later expanded to become one of the first keyword search engines. (Bing, 2007) Also during this time period (1963-1967), the Pittsburgh Health Law Center contracted with the Federal government to develop the FLITE “Federal legal information through electronics” system. The FLITE system was supported by commercial contractors into the mid 1970's. FLITE included many US Supreme Court cases, which later were the subject of a FOIA request and made available to the public.

In 1967, the Ohio State Bar Association research project developed OBAR, which was intended to be an information retrieval system for attorneys that would decrease dependence on the printed West Digest system. It was described as a “non-indexed, full-text, on-line, interactive, computer-assisted legal research service.” In other words, the purpose of OBAR was to provide a keyword search method which could help free lawyers from the restrictions of the bibliographic-based print research methods of the past. The OBAR system would eventually become Lexis by the early 1970’s. Westlaw was launched in 1975.

For a period of almost 50 years, from 1927 to 1975, there was little change in the sources which lawyers used for legal research purposes until OBAR, with its call for a “non-indexed” system. OBAR was clearly a reaction against the classification systems used by West Publishing, which while allowing for order and efficiency, were also in their own way, restrictive. Danner (2007) also notes that there is an inherent tension in the legal
information field between forces of stability and forces of change. In general legal culture has been slow to change and accept new technologies.

Still, some provision might be made for more collaborative aspects of legal information behavior, particularly in the upper legal courses. More integration between advanced legal research courses and substantive courses in the upper levels, which introduce more social and practice elements, may be beneficial. More practice-oriented research projects, research diaries, and simulations involving documents from real life or lifelike research projects may also enrich legal research courses in the upper levels of law school instruction. Discussion of the history of legal information systems and the resulting clash between the stability of the old print legal research universe and the constant change of the electronic era can give students in both basic and advanced legal research classes a better understanding of the research environment they will soon enter.

B. As our attention as researchers turns to issues of society and context, we begin to touch on the issue of design, an "invisible substrate" of information science which has existed from its earliest days.

As our attention as researchers turns to issues of society and context, we begin to touch on the issue of design, which has been a type of what Bates (1999) terms an “invisible substrate” in information science. Bates notes that in information science, there are three major areas, or “big questions,” that engage our attention (Bates, 1999, p. 1048):

(1) The physical question: What are the features and laws of the recorded-information universe?

(2) The social question: How do people relate to, seek, and use information?
(3) The design question: How can access to recorded information be made most rapid and effective?

This “invisible substrate” of design has been present in the field of information behavior studies from its earliest beginnings. In a 1958 study for the Air Force titled, “The Relationship of Information-Use Studies and the Design of Information Storage and Retrieval Systems,” Saul Herner stated that:

Perhaps the most important and least considered factor in the design of information storage and retrieval systems is the user of such systems. Regardless of what other parameters are considered in the development of a storage and retrieval mechanism, it is necessary to consider its potential use and mode of use by the persons or groups for whom it is intended; it is necessary either to fashion the system to suit the user's needs, habits, and preferences, or fashion the user to meet the needs, habits, and preferences of the system. Both approaches are possible, but the second one, involving the education and re-education of the user, is evolutionary and futuristic. A system designed for now should at least be able to serve the present user. (Herner, 1958, p. 1)

In their landmark review of information needs, from which they extracted guidelines for information system designers, Faibisoff & Ely59 (1976) ask:

59 Faibisoff & Ely's guidelines are still relevant today:
1. Identify the specific information the user actually needs or requires for what he is doing.
2. Identify the user in relation to his discipline or environment.
3. There must be interaction between the information broker and the user whether he is part of the research community or the general public.
4. Information should be provided in a form suitable to its effective use.
5. Existing records should be broad enough in scope to provide required information and to allow for accidental recovery.
6. The system should be so designed as to provide the right information at the right time.
7. Information should be stored in such a way that it is not only available but easily accessible.
8. Standards must be developed to insure the utility of future data collections.
9. The system should not assume that the user has not articulated his information need.
10. The system should adapt itself to the receiver's associative habits and not insist on the converse.
11. Since oral communication is an important feature of gathering information, the system should devise ways for facilitating the dissemination of such information.
12. Availability of information can be more important than specific information requirements.
But what goes into this interface? How is it composed and what can it do for use? These are not simple questions, and the temptation is to seek an easy solution. But the answers provided by such as quest have failed to take into account the amorphous qualities lending character and brilliance to the many-faceted gem which we know simply as information. In short, information is used in a variety of contexts, and as we use it, we ourselves are shaped by it. Faibisoff & Ely (1976, p.4)

Solomon (2002) acknowledges the work of Faibisoff and Ely as one of the foundations of his Discovering Information in Context approach.

Much of information behavior research can be seen from the perspective of problem solving. MacMullin and Taylor (1984) contrast design and discovery in the information problem solving process. They state that:

Discovery is the description of the natural world, the things and processes which are apart from human activities. Discovery is concerned with what exists in the natural world. Natural sciences, such as astronomy and physics, are examples of disciplines which involve the process of discovery, i.e. describe what is ‘already there.’ In contrast, design concerns those problems which refer to things and processes made by humans. Design problems are ones where a certain state is desired and through an effort of change can be affected which creates the desired state. Economics, cognitive psychology, education, and information studies are examples of disciplines which concentrate on problems of design. Man does not create what is "described," but he does create what is ‘designed.’ Design is a process of, creation while description is a process of explication. (p. 103)

Defining the terms context and design can be as difficult as designing the verb, “to be.”

We saw many perspectives on the term context from the discussion above. An additional one is noted here. The Oxford English Dictionary (OED) has many definitions of the term context, but an intriguing one is the perspective of something that is woven together. The concept of weaving is a powerful one. We knit meaning for ourselves using the various strands of reality we perceive. The OED defines the verb, to knit as “to make compact or firm by close contraction or consolidation of parts. To make close, dense, or
hard, to compact, to concentrate.” They also define it as “to join or unite closely and firmly.” In other words, when we weave, when we knit, we fit things together.

As we saw above, Christopher Alexander spoke about context and “the goodness of fit” in his landmark work on design, *Notes on the Synthesis of Form*. He notes that “the ultimate object of design is form.” (Alexander, 1964, p. 15) He states that “every design problem begins with an effort to achieve fitness between two entities: the form in question and its context. The form is the solution to the problem. The context defines the problem. In other words, when we speak of design, the real object of discussion is not the form alone, but the ensemble comprising the form and its context.” (Alexander, 1964, p. 15-16)

The analogies of building and architecture (Rosenfeld & Morville, 2002), quilting and knitting (Prigoda & McKenzie, 2007), have been used both in terms of libraries as well as website development. Rosenfeld and Morville (Rosenfeld & Morville, 2002), in their book *Information Architecture*, provide several definitions for the term “Information Architecture,” one of which is: “An emerging discipline and community of practice focused on bringing principles of design and architecture to the digital landscape.” (Rosenfeld & Morville, 2002, p. 4)

Simon (1996), in his book *Sciences of the Artificial*, notes that “everyone designs who derives courses of action aimed at changing existing conditions into preferred ones...” (p. 111) He goes on to say that: “Design, so construed, is the core of all professional training; it is the principle mark that distinguishes the professions from the sciences.
Schools of engineering, as well as schools of architecture, business, law, and medicine, are all centrally concerned with the process of design.” (Simon, 1996, p. 111)

Atwood, McCain and Williams (2002) used author co-citation analysis to review how the design community approached the concept of design in their works. Their sampling of definitions of the word design included concepts of change (Jones, 1970; Rasmussen, Pejtersen, & Goodstein, 1994; Simon, 1996; Vicente, 1999), process (Alexander, 1964; Ehn, 1990), structure (Rittel, 1984), and reflection (Schön, 1983).

Atwood, Gross, McCain, & Mørch (2003) provide a table sampling various definitions of design:

<table>
<thead>
<tr>
<th>Herbert A. Simon</th>
<th>...devising courses of action aimed at changing existing situations into preferred ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. Christopher Jones</td>
<td>...initiating change in man-made things</td>
</tr>
<tr>
<td>Christopher Alexander</td>
<td>...the process of inventing physical things which display new physical order, organization, form, in response to function</td>
</tr>
<tr>
<td>Horst Rittel</td>
<td>...structuring argumentation to solve &quot;wicked&quot; problems</td>
</tr>
<tr>
<td>Donald Schön</td>
<td>...a reflective conversation with the materials of a design situation</td>
</tr>
<tr>
<td>Pelle Ehn</td>
<td>...a democratic and participatory process</td>
</tr>
<tr>
<td>Jens Rasmussen/Kim Vicente</td>
<td>...creating complex sociotechnical systems that help workers adapt to the changing and uncertain demands of their job</td>
</tr>
</tbody>
</table>

Table 1. A sampling of definitions of design

Figure 62 Source: Atwood, Gross, McCain, & Mørch (2003)

Some have seen information behavior itself as a type of design process. We are only now coming full circle to the position of earlier information behavior researchers, such as
Herner (1958) in terms of looking at information behavior as a design process. Robert E. Horn writes that “Information design is defined as the art and science of preparing information so that it can be used by human beings with efficiency and effectiveness.” (Horn, 1999, p. 15) His definition provides valuable insight on the subject, but it still seems to assume that the information designer provides information to the user, rather than seeing the user as an autonomous information designer in his own right.

The HCI field in particular has recognized this principle of the person as designer., Citation analysis (Atwood, Gross, McCain, & Mørch, 2003) shows seven clusters of design-centric authors, including:

- Participatory Design (Kyng, Greenbaum, Ehn, and Bødker);
- User-centered design (Grudin, Marchionini, Nielsen, Schneiderman, Carroll, and Card);
- Cognitive engineering (Rasmussen, Vincente);
- Design rationale (Conklin, Gruber, Atwood, Lee);
- Design complexity (Alexander, Argyris);
- Design taxonomists; and
- Design theorists (Schön, Simon). (p. 11)

Within HCI, Activity Theory has been used as a dynamic, open system of exploration and design. David Redmiles notes that “Design has always been an obstacle to software development projects. One reason design remains elusive is that the kinds of objects being designed continue to change.” Redmiles (2002, p. 1) As software has developed into more complex, distributed systems, Redmiles argues that the traditional view of complexity in software design must also change. He states that “…in this special issue, complexity is measured in terms of the activities in which a community of stakeholders are involved and in which software fulfills some purpose.” (Redmiles, 2002, p. 1) Redmiles notes that “To better understand complexity from this perspective, some
software developers have turned to theories of human behavior at the individual, group, and organizational levels, and beyond (Grudin, 1994).” Redmiles (2002, p. 1). He continues by saying that “Activity theory (AT) is one such theory that seems particularly well suited to the endeavor. Activity theory provides a framework for describing phenomena at various levels.” Redmiles (2002, p. 1)

**Sense-Making As Design**

For a fuller understanding of Sense-Making the emphasis should be more on the “Making” side of the equation. For at its heart, what Sense-Making describes is an active process, where the user creates or “makes” ways to obtain the information they need with help from various sources. In the Sense-Making perspective, a person is not just engaging in “information behavior.” Rather in Sense-Making, a person is engaging in a dynamic, active design process in which individuals use various means (helps) to bridge gaps in their knowledge by fitting information into their own context. Dervin describes Sense-Making as an act of creation.

Information is conceptualized as “that sense created at a specific moment in time-space by one or more humans.” (Dervin, 1992, p. 63) In this perspective, her conception of information can be seen as closer to the “information as process” conception of (Buckland, 1991). Dervin presents Sense-Making as an example which embodies the principles of information design. (Dervin, 1999a) Dervin states that: “…we must look for differences not in how humans, individually and collectively, see their worlds but in how they “make” their worlds (i.e., construct a sense of the world and how it works).” (Dervin, 1999a, p. 40)
Dervin describes Sense-Making as an “alternative narrative” for information behavior. Dervin states that “Because of its emphasis on information as designed and redesigned—as made, confirmed, supported, challenged, resisted, and destroyed-- this approach positions power as a primary consideration rather than as afterthought.” (Dervin, 1999a, p. 41-42) She labels her alternative narrative as “a communication perspective on information. The central idea here is that information is made and unmade in communication- intrapersonal, interpersonal, social, organizational, national, and global.” (p. 43) Design is a central part of Dervin’s view of information behavior. Dervin states that: “With this view of information, information design cannot treat information as a mere thing to be economically and effectively packaged for distribution. Rather, it insists that information design is, in effect, metadesign: design about design, design, to assist people to make and unmake their own informations, their own sense.” (Dervin, 1999a, p. 43)

Dervin further states that “One way in which Sense-Making differs markedly from other approaches is that it explicitly, and necessarily, privileges the ordinary person as a theorist involved in developing ideas to guide an understanding of not only her personal world but also collective, historical, and social worlds.” (p.45) While Dervin accepts the cultural viewpoint, she argues that a true understanding of human cognition must flow from the individual. Dervin argues that “while Sense-Making focuses on the human-individual, it does not rest on an individualistic theory of human action. Rather, it assumes that structure, culture, community, organization are created, maintained, reified, challenged, changed, resisted and destroyed in communication and can only be understood by focusing on the individual-in-context, including the social context.”
(Dervin, 1999a, p. 46) When viewed from the perspective of design, Dervin’s Sense-Making and Activity Theory may have more affinities than are apparent on the surface. Perhaps one of the reasons that librarians or information system designers do not always seem to be able to match what we want to provide to our users, customers, or patrons, is that we don't recognize them for what they really are: active partners in the process of information design. Instead we wonder why people don't come to libraries or use systems in unexpected ways (or not at all).

**C. What is information in an information design and discovery perspective?**

The vagueness of the definition of context and information use is linked to a corresponding vagueness of the definition of information itself. Capurro and Hjørland (2003) state:

> A broad philosophical debate continues as to whether the concept should address a knowledge process including, as a necessary condition, a human knower or, at the very least, an interpretative system, or whether it should exclude mental states and user-related intentions and be considered as addressing an objective magnitude or property of beings… Between these two positions are different kinds of mediating theories, including the quest for a unified theory of information… This controversy reflects the complex history of the term.

While there are many definitions of and approaches to the term information (see, for example, Hjørland, 2007), this review will focus on two broad approaches to information that have proved useful: Continuity/Discontinuity and Structure/Action. Within these, an additional perspective is also considered: Production/Consumption. Information can be seen as a process of contextualization.
1. Continuity/Discontinuity

Wilson (1994) states that information can be said to be either something that is continuous or something that is discontinuous. Other ways of stating the same concept would be to ask if information is evolutionary or revolutionary in nature. Or, that one should look at information atomistically or holistically. One commonly held view is that information is the reduction of uncertainty. Faibisoff and Ely (1976, p. 2) state:

What is information? It is that which reduces uncertainty. It is that which assists in decision-making. It may exist as data in books, computers, people, files and thousands and other sources. These sources have to be considered as raw data until they are used to resolve uncertainties.

They further state: (p.3)

Information is a symbol or set of symbols which has the potential for meaning. With all of the risks and hazards present in that definition, and with some knowledge of the limitations involved, we turn to the relationship between information and communication. Communication may be operationally defined as a transfer of meaning.

Information in the cognitive viewpoint is often described as decreasing uncertainty.

Kuhlthau (1993a) defines her “uncertainty principle” as follows:

Uncertainty is a cognitive state which commonly causes affective symptoms of anxiety and lack of confidence. Uncertainty and anxiety can be expected in the early stages of the information search process. The affective symptoms of uncertainty, confusion, and frustration are associated with vague, unclear thoughts about a topic or questions. As knowledge states shift to more clearly focused thoughts, a parallel shift occurs in feelings of increased confidence. Uncertainty due to a lack of
understanding, a gap in meaning, or a limited construct initiates the process of information seeking.

In this view, information is seen as continuous, in that it provides a gradual resolution to a problem. As it decreases uncertainty, in this view information is seen as a negative value. This can also be seen as a view of information as consumption. As the information is gradually consumed, affective feelings of frustration diminish.

While Kuhlthau’s view of information – reduction of uncertainty – could be said to be continuous, Dervin’s view of information is one of discontinuity. Dervin notes (1992, p. 63):

It is useful to start by delineating the core assumption on which Sense-Making rests – the assumption of discontinuity. This assumption proposes that discontinuity is a fundamental aspect of reality. It is assumed that there are discontinuities in all existence – between entities (living and otherwise), between times, and between spaces. It is assumed that this discontinuity condition exists between the mind and the tongue, between the tongue and message created, between message created and channel, between human at time one and human at time two, between human and culture, between human and institution, between institution and institution, between nation and nation, and so on. Discontinuity is an assumed constant of nature generally and the human condition specifically.

Dervin (1992, p. 63) characterizes information as bound to human activity:

Drawing from the discontinuity assumption, information is conceptualized as that sense created at a specific moment in time-space by one or more humans. Information is not seen as something that exists apart from human behavioral activity. Because there is no direct observation of reality, all observations result from an application of energy by humans in one or more forms.
Dervin (1977, p. 294) notes that information is something that has different states at different times and for different purposes. Dervin’s viewpoint is more social in nature. The more social approaches (as opposed to the more cognitive ones) view information as discourse or communication where meaning is negotiated between actors. Rather than decreasing uncertainty, information is seen as increasing understanding. Information is seen as a positive value. For example, Talja (1997) takes a more social discourse oriented view and argues that what information actually does is to increase the understanding of the user. Solomon (2002, p. 257) considers “information as something that is constructed by people in their interactions with other people, technology, and structures as they move through life and work. It also draws attention to the power, in turn, of people, systems, and institutions to shape what information is.” In this viewpoint, information can be seen as a type of production, where value is actively constructed by the user.

2. Structure /Action

Rosenbaum (1996) states that “The determination of the relationship between structure and action is a fundamental issue in any discipline that seeks to understand something about the social world.” Edgar & Sedgwick (1999, p. 16) describes the tension as one between agency and structure: “A central problem in social theory is the relationship between apparently autonomous actions of individuals, and an overarching and stable social order…The problem may be seen in terms of the questions as to whether (or how)
structures can determine the actions of individuals; and as to how structures are created.”

They go on to state (p. 17) that:

In social theory, attempts to resolve the tension between agency and social structures have involved various approaches. At one extreme functionalists (following in a tradition from Durkheim) and structural Marxists have tended to belittle the freedom of the individual, reducing social agents to...mere bearers of a structure, who passively follow rules that they have internalized during socialization. At the other extreme, the reality of social structure is denied altogether by ethnomethodologists...providing a short-hand for what are ultimately multiple individual actions, and thus as having no determining power over the individual. Between these extremes various attempts have been made to understand social agency, that in turn must be both actively (if unwittingly) sustained or reproduced by such an agency, and that provide delimiting (rather than determining) conditions within which action is understood, given meaning, and pursued.

Buckland (1991) provides a classification of several states of information, some of which are tangible and others are intangible. According to Buckland, at times information can manifest as a tangible entity, a “thing” a tangible process “information processing”, and other times as intangible entity “knowledge,” or an intangible process.

Figure 63 Buckland (1991) Four Aspects of Information
Buckland (1991) captures one extreme when he describes information as “thing,” a highly structured object which can be transferred, represented, and retrieved. This corresponds to the more traditional behaviorist, positivist approach to information science. Other than the extreme positivist view of information as “thing” the various approaches to information in their own way acknowledge its fluid, transformational nature. In the cognitive viewpoint, information is seen as individual knowledge structures which are modified through interaction with an information system (Belkin et al., 1982; Ingwersen, 1992). Buckland (1991, p. 352) describes information processing as “the storage, handling, manipulating, and deriving of new forms or versions of information-as-thing.” In other words, it can be seen as a type of use.

Choo et.al. (2000) base their work on more socially oriented knowledge management literature. They portray information as a spiral helix as it transforms from data, to information, to knowledge. Choo et.al. (2000) also see information in terms of structure and action. They see the creation of knowledge is a transformative process in which both structure and agency have a role. Their data-information-knowledge continuum is in the graphic below. (p.30) Note that their helix rests within a framework of low to high structure and low to high human agency.
They state that this transformative process has an impact on the concept of information use. They note that (2000, p.29) “Through use, practice, and reflection, information becomes knowledge…” They also state that:

there are cognitive, affective, and situational dimensions of information use. Information use occurs when information possessed and engaged by mental schemas are engaged within a larger social and cultural context. The outcome of information use is a change in the individual’s state of knowledge or capacity to act. For example, an affective dimension of information use is that people will avoid using negative information.
In this view of information, both consumption of data and production of information and knowledge take place as they become more structured and subject to the actions of human agents.

Choo et.al. state that “Information and knowledge are the outcome of human action that engage signs, signals, and artifacts in social and physical settings. Knowledge builds on an accumulation of experience. Information depends on an aggregation of data. Transformation of information into knowledge is the result of two complementary dynamics: the “structuring” of data and information that imposes or reveals order and pattern; and the human “acting on data and information that attributes sense and salience.” (p.29)

Solomon’s (2002, p. 229) Discovery of Information in Context viewpoint is based upon reflection and active construction of knowledge. Solomon states:

…the discovery of information view presented here characterizes information as being constructed through involvement in life’s activities, problems, tasks, and social and technological structures, as opposed to being independent and context free. Given this process view, discovering information entails engagement, reflection, learning, and action – all the behaviors that research subjects often speak of as making sense – above and beyond the traditional focus of the information studies field: seeking without consideration of connections across time…

Solomon offers (p. 229-230):

A reconceptualization and refocusing of the work of information studies from wondering why people use or do not use information institutions, systems, or sources toward considering what information is to people, how stuff ends up becoming information, and how information so discovered
influences further action. The idea is that through such an understanding in context, a foundation will be set for designing collections (content and contexts), organizational schemes (representations and classifications), retrieval mechanisms, and displays that fit the problems and tasks of life and work. The hope is that this idea of fit might lead to the creation of systems that, through their flexibility, accommodate people at various stages in their discovery of information.

These practice-oriented views of information are similar to Schön’s (1983) concept of knowing-in-action.

Many of the debates about the nature of information tend to mirror the “is light a particle or wave?” debate in physics. Is information a matter of explanation or understanding? Is it about description or prediction? Is it a matter of design or discovery? Is it something that is made or something that is found? As in physics, the more sophisticated views of information point out that it may manifest in various forms at different points in space and time. As we have seen previously, Ingwersen (1992; 1996; Ingwersen & Järvelin, 2005) sees information as a process of contextualization and decontextualization. According to Ingwersen, transmission of information or knowledge from one human to another requires “transformation of a cognitive state.” Ingwersen states that “messages communicated from the system, including to and from an intermediary mechanism, remain at a linguistic level until they conceivably transform a human cognitive state by turning into information.” (Ingwersen, 1996, p.10) This loss of meaning increases uncertainty within the system, a point of view he states is in line with both Kuhlthau (1993a; 1993b; 2004) and Rasmussen et.al. (1994).
Cole and Kuhlthau (2000) similarly note that “At its deepest level, information is a mechanism for altering our mental representation of the environment in a purposeful way, so that we can better predict, control, make sense of and give meaning to our environment.” (Cole & Kuhlthau, 2000, p.104)

They note the importance of the Sense-Making metaphor, stating that “Dervin's bridge is not the information filling in the gap like a brick being thrown into a bucket...but rather is the result of the altered sense of the situation the person is able to construct in the process of becoming informed.” (Cole & Kuhlthau, 2000, p. 105) In their view, information is potential information, which is useful only when it interacts with the cognitive processes of a living person. Cole & Kuhlthau state that: “...for an information worker such as a lawyer to have the right information for adding value to a client, or judge and jury, library and information science must look at the library and database data it has access to as potential information, which only becomes realized within a value-added process.” (Cole & Kuhlthau, 2000, p. 111)

Brenda Dervin (1999b) provides considerable insight into the nature of the Sense-Making concept and the nature of information itself when she describes Sense-Making as a process of “verbing.” She states that:

...the subject, the sentient human being, is no longer given absolute ontological status; nor are the institutions human subjects create and maintain given absolute status. It is assumed that humans and their worlds are constantly evolving, and becoming, sometimes decentered, sometimes centered, sometimes fluid, sometimes rigid. It is assumed that structures are energized by structurings; organizations by organizings; human beings by sense-makings and sense-unmakings. Sense-Making refocuses attention from the transcendent individual or collective human unit to the verbing. (p.731)
Dervin goes on to state that “Sense-Making further assumes that it is not necessary to privilege either realism-based or interpretive-based methodologies.... There are a host of other verbings involved (e.g. consensusing, negotiating, power-brokering, defining, hunching, muddling, suppressing). By focusing on the verbings by which sense is made and unmade, Sense-Making frees research from the implicit assumption that there is one right way to produce knowledge.” Dervin (1999b, p.732)

Dervin and Frenette (2003) contrast the perspectives of “nouning” and “verbing.” They state that “In simple terms, a nouncing approach implies that we have come to a fixed understanding of a problem and its solution, whereas a verbing approach implies that we pay attention to how people are making and unmaking sense in the contexts of their lives.” (p. 236) Savolainen (2006) notes that “Thinking of the nature of the gap-bridging process, the reference to design is important, because information should be conceived of as something malleable, designable, and flexible, like clay to be molded according to situational needs.” (p. 1118) Citing Dervin, he continues that “This suggests that from the beginning, the phenomena of information use should be approached from the viewpoint of constructing, as designing and shaping of cognitive and affective elements of various kinds.” (p. 1117) Information in this perspective becomes a mediating tool. Savolainen notes that “Thus, there is no final information describing an ordered reality; information is rather a human tool designed by human beings....” (p. 1118) Looking at information as a tool-making process provides an entirely different perspective to looking at how people find, use, and create new information.
Hjørland (1997) looks at information as a system. Hjørland (1997) states that “Activity theory regards the organism in relations to its environment…Meaning holism (or semantic holism) denotes the following thesis about the nature of representation: the meanings of a symbol or a term are relative to the entire system of representations containing it.” (p. 81) From the perspective of Activity theory, Information is a mediating tool. However, it is not a tool in the traditional “normative” sense described by Dervin (1977). Dervin (1977, p. 20) states that in the traditional, positivist view, “The core assumption is that information exists independent of human action and that its value lies in describing reality and therefore in reducing uncertainty about reality.” In the view of Activity Theory, information does not exist independent of human action.

Capurro and Hørland (2003) “propose that the scientific definitions of terms like information depend on what roles we give them in our theories; in other words, the type of methodological work they must do for us.” Activity Theory helps us to visualize how information is connected to human beings, and how humans use information as a mediating tool to design and make sense of their world. From the standpoint of this study, information is a mediating tool which people use to construct an understanding of their world, solve problems, design and create new knowledge, and transform themselves in the process.
D. Of Judges and Janitors

In this study, the “information rich” seemed to engage in some of the same activity as the “information poor” studied by library science researchers such as Chatman (1991, 1996, 1999) and Childers and Post (1975). What does it really mean to be disadvantaged? According to Childers and Post: “It means to be lacking in something that society considers important.” (Childers & Post, 1975). How different, really, are the information behavior processes of the “information poor” and those in the general population?

In a discourse analysis of concepts of “information poverty” in LIS, Jutter Haider and David Bawden note that “the line between ‘information rich’ and ‘information poor’ is drawn between the individual on one side and the corporation and the state on the other. The difference between the two is anchored in their unequal access, i.e., the poor/individual being overpowered in the fight for access by the rich/state/corporation.” (Haider & Bawden, 2006, p. 544) In this study, however, novice legal researchers with access to some of the best search technologies available, displayed some of the same behaviors (deception, information avoidance) as those displayed in information poverty studies. Because such studies are labeled “information poverty,” many in the information science field do not have awareness of authors whose works could be applicable more generally such as Childers & Post (1975), Agosto & Hughes-Hassell (2006a; 2006b), Harris & Dewdney (1994), Chatman (1996), and Mancall & Drott (Mancall & Drott, 1983). It may be that this and other “everyday life” research (Agosto & Hughes-Hassell,
2005; McKenzie, 2003; Savolainen, 1995; Savolainen & Kari, 2004; Spink et al., 1999; Spink & Cole, 2001) has relevance for the broader information behavior field.

The essential question is, how do you design for a Small World? How do you design for a system where the research task is often delegated to people with a less developed mental model of a given area of the law than the person giving the assignment? One possibility is the give user more of a sense of power and control or the interface, as Westlaw and Lexis have done, for example, with their ability to incorporate subject tabs. Another would be to provide a mechanism for teams to share an information space within the Lexis or Westlaw interface where the people carrying out the assignment can communicate with other members of their team. Solomon (2002, p. 253-257) notes several ways in which systems can be designed to support information seeking in context, including creativity support, social navigation for improved interaction, and more flexible means of visualization.

**E. Artificial Intelligence and Law**

There have been several attempts at artificial intelligence in law. Many theories of legal artificial intelligence revolve around basic assumptions about the nature of legal argument. There are several approaches to characterizing the nature of legal argument, the basic division being Rule-Based (Gordon, 1994), and Case-Based (Ashley, 1990; Rissland & Skalak, 1991). McCarty, presents a legal argument as theory construction approach (McCarty, 1997). While Belew (1987) advocates connectionism and others
off an agent-based approach (see, for example, Heesen, Homburg, & Offereins, 1997), Prakken & Sartor (1996) advocated a “dialectical approach” that could present law on both sides of the issue.

Although there has been much research in this area, the consensus has been that AI applications and expert systems, outside of rule-based areas such as taxation, have been largely unsuccessful. Carol Hafner and Donald Berman (2002) advocate for a more context-based approach. They note that:

The ability of most of these models to simulate the reasoning of practicing attorneys is limited by their exclusive focus on the factual similarity between a prior case and a new case. Real-world legal precedents are embedded in a complex jurisprudential context that includes the level and jurisdiction of the court..., the procedural posture of the prior case (i.e., what formal claim or motion was before the court), and the influence of dissenting opinions. Legal precedents are also embedded in a political context, where competing policies and values are balanced by the courts, and where legal doctrines evolve to accommodate new social and economic realities. Contextual factors such as these are considered by skillful attorneys when they make predictions about whether a precedent is likely to be followed, and whether a legal argument is likely to prevail. As a result, computational models that do not take account of context fall short of a robust analysis of the case-based legal reasoning performed by a practicing lawyer. (Hafner & Berman, 2002, p. 20)

They “argue that robust models of case-based legal reasoning must also consider the broader social and jurisprudential context in which legal precedents are decided.” (p.19)

The empirical research here, though examining the processes of novices, does seem to show some support for McCarty's work on legal argument as a process of theory construction. There is also support for Carol Hafner's argument that more context-based
factors should be used in creating legal artificial intelligence systems. In his book, the *Five Types of Legal Argument*, Wilson Huhn notes several basic ways to attack legal arguments, such as ambiguous text, plain meaning of the statute, intent of the legislature, dissimilar facts, and policy reasons. (Huhn, 2002, p. 91-93) While you can search the major legal information retrieval systems with search terms based upon the facts or the case or the legal principles involved, it is much more difficult to search for procedural issues or strategic arguments. To a certain extent, if there is indeed a major social component to human cognition, there may be only certain portions of attorney cognition that AI may be able to help with. Activity Theory could be explored as a possible model for Artificial Intelligence research.

**F. Memory In the Round**

Bates (2005) states that:

In science, a classic sequence of development has been characterized as ‘description, prediction, explanation.’ That is, the first task when studying a new phenomenon is to describe the phenomenon. It is difficult to think about something if you know little about it. So description comes first. Second, once one knows something about a phenomenon, it should be possible to predict relationships, processes or sequences associated with the phenomenon. Third, based on the testing of predictions, one should be able to develop an explanation of the phenomenon, that is, a theory. Theories can always be overturned by later theories; even when a theory has been well tested it is always possible that later research will provide a more thorough, deeper explanation for the phenomenon of interest. (Bates, 2005, p. 3)

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60 Footnote: The only reference to the term found on the web was in a 2002 article: "Theatre of Memory in the round" in terms of Shakespeare. See [http://personal.centenary.edu/~lgame/portfolio/tempest.html](http://personal.centenary.edu/~lgame/portfolio/tempest.html)
In this study, the Activity Theory matrix has been used as a methodological lens, or tool, to describe and gain a preliminary understanding of the information use environment of the law clinic. This section sets forth a metaphor or model which can be used to frame possible relationships, processes, and sequences of the information behaviors observed in the clinic for future testing and theory construction. While Activity Theory was useful in gaining a general understanding of the information behaviors in the law clinic, it did not account for all aspects of the clinic student’s information behavior. For example, Activity Theory does not appear to differentiate artifacts in their importance. In Activity Theory, phenomena such as the use of organizational memory, such as the client files, would be seen as a mediating tool or artifact. However, the clinic students seemed to look at information sources in a specific order, starting with client files and moving on to social contacts and more formal sources of information. Is there a specific approach to how we view human cognition that allows us to move beyond Activity Theory? Could in fact there be a relationship between the information sources that is not represented by the Activity Theory matrix? If so, is there a way to visualize it?

As we have seen, Activity Theory has been said to be a representation of both individual and social aspects of human memory (see Scribner and Beach 1993). It has also been argued that information behavior models from the library and information science literature can be seen in terms of the types of memory they explore, primarily individual or social. However, other types of memory are also mentioned in the library and information science literature, both past and present, including concepts such as societal memory, stories and myths, and memory in artifacts. For example, in this study the
instructor could be seen at times to tell jokes and stories in order to get a point across. These additional types of memory, in addition to individual and social memory, can be seen together as a type of memory that goes beyond the traditional view of memory as an individual phenomenon. This paper refers to these various types of memory, and the information behavior models which address them, in terms of “Memory in the Round,” which is based on the concept of “Roundness” from the work of Paul Solomon and Elfreda Chatman. This conception of memory is not intended to replace work on the social construction of intelligence from the fields of Cognitive Psychology and Social Psychology (see, for example, Scribner & Beach). Rather, “Memory in the Round,” aims to present a conception of memory and cognition which can aid the library and information science researcher’s visualization of the forces of memory which lie behind Activity Theory and other information behavior models and move toward an understanding of how various information behavior models can work together when analyzing information behavior. This expanded conception of memory includes not only individual memory and group cognition (examined earlier), but also societal memories such as myths, metaphor, and stories.

**Societal Memory**

Two senses in of societal memory include 1) Mediated Memory (memory as reflected in physical artifacts), and 2) more general stories, myths, folktales, metaphors, signs, symbols, traditions, rituals etc. James Wertsch (1997), states that “...another sense in which mental functions such as memory can be collective or social. This sense of
collectivity has to do with the fact that these mental functions are mediated by sociohistorically evolved (i.e., collective) tools or instruments.” (Wertsch, 1997, p. 226)

Klaus Krippendorff, in his 1975 paper, “Some Principles of Information Storage and Retrieval in Society,” focused on how to separate the concept of “societal memory,” from other types of memory. He states that, “Social phenomena too are often seen as determined not by the present conditions alone but also by ‘historical forces,’ which is another way of saying that past events shape through some existing mechanism what is observable at present. It is the underlying processes by which traces of past events are maintained and brought to bear on the behavior of a system which I would consider as constituting its memory.” (Krippendorff, 1975, p.16)

Krippendorff states that: “Social memory then is a form of explanation of behavior which is then a form of explanation of behavior which is reducible neither to the psychological processes of organic memories not to the technological processes of artificially designed mechanisms. Social memory explains historically-determined behavior by reference to structural features of society.” (p. 17)

**Library as Societal Memory**

J.M. Orr (1977) spoke of the library as a communication system. Orr stated that “…it is assumed that the parts of a library system may be grouped into three main areas: people (staff and readers); recorded information within the library; and buildings, furniture, and equipment” (Orr, 1977, p. 4) Orr, notes that “Individuals prefer states and, if disturbed, tend to try to regain equilibrium or homeostasis.” (p. 4) He argues that:
Above all, a library is a knowledge-communicatory system which reflects man's own knowledge system. It is, therefore, a complementary feedback system which exists to encourage the action of the book meeting the reader, with possible changes being effected... (p.7)

In a section titled “Libraries as Memories,” Orr states that: that “Man created his library system as a corporate memory of his society, and any judgment of the success of the development of libraries must include an account of how they have operated as memories, or data banks.” (p. 33) He continues by saying that “these go a very long way to eliminating the bottleneck of man's individual memory.” (p. 34)

Jesse H. Shera, who looked at the library profession in terms of what he called “social epistemology,” noted that: “Librarianship has always been interdisciplinary in that its goal was to make the total record of the human adventure readily accessible to all.” (Shera, 1983, p. 380).

Stories, Myths and Metaphors

Story has been recognized as a useful concept in both the study of information behavior (Savolainen, 2000; Cole, 2006, metaphor), (Spink & Currier, 2005, evolutionary approach), (Madden, Palimi, & Bryson, 2006, pre-literate societies), (Spink & Cole, 2007, myth - evolutionary approach) and the design of information systems (Neale & Carroll, 1997). At the outmost fringes of context, stories, myths, metaphors, symbols, signs, tradition and rituals all transmit a meaning that is sometimes deeper than the information that is in a context that is closest to the individual. Gasson (2005) describes the use of stories: “Stories are typically used as a way for socio-cultural communities of practice to express collective memory of success or failure...”
Julian E. Orr found that “war stories” were a valuable information tool in an ethnographic study of Xerox technicians. Orr states: “Once war stories have been told, the stories are artifacts to circulate and preserve.” (Orr, 1996, p. 126) Moreville (2005) notes that “Despite huge investments in information and communication technology, we still rely heavily on informal person-to-person networks known as ‘the grapevine.’ And we often trust this ‘unofficial news’ more than the ‘official story.’” (Moreville, 2005, p. 57) See, for example, Baumle (2006).

Callister (2005) touches on the concept of story telling and the preservation of memory in the law when he states that: “The nature of the Celtic and Icelandic legal infospheres is founded in cultural memory, where poets and bards orally transmit custom and law. Such a tradition favors the use of precedent and comports with later English traditions of pleading.” Callister (2005, p. 307)

Research indicates that these types of memory do not operate alone or in a vacuum. Each interacts with each other during cognitive processes. An individual for example, may mediate an interaction between another individual and organizational memory. In a study of telephone operators, for example, the authors characterized the operator as a “surrogate user.” They noted that there were “... two contexts of interaction, one being the social interaction with the customer and the other being the operators’ technical interaction with the computer.” (Lawrence, Atwood, & Dews, 1994, p. 399)
Ubiquitous Memory

With the rise of Google, and social computing applications such as Wikipedia, Myspace, and weblogs, the line between “everyday life” research and other contexts for information behavior grows thin. Solomon noted that: “...participants do not think of information as something separate from the task or problem at hand. Information behavior is part and parcel of everything that goes on in their information worlds. This is a fundamental insight.” (Solomon, 1997b, p. 1125)

Bødker (2007) notes that as computers advance, the relationship between humans and computers changes from one of “one-to-many” to “many-to-many.” Computers were designed as a type of mediator which was to be a “permanent substitution of the old.” Bødker explores the concept of “ubiquitous substitution,” in which one type of mediator does not act as a permanent substitute for another (in her example, a typewriter with a word processor), but rather continuous switches between mediators takes place. She states that “ubiquitous substitution is not a matter of breaking down and replacing one type of mediation with another, but providing a larger ‘toolbox’ and a better understanding of which mediation to apply when.” (Bødker, 2007)

Integrating Theory

How do people operate within the overall Sense-Making process? Given the discovery approach taken above, what aspects of information behavior could be said to be, if not predictable, at least understood as being true? As people consult one type of memory or

61 For a humorous take on the concept of ubiquitous memory, see (Brooks, 2007).
the other during the process of Sense-Making, several features become apparent. As people deal with an information problem, they engage in a type of bounded rationality or satisficing (Simon). People “forage” from one type of memory to another (Pirolli & Card). As one moves from one level of memory to another, the information becomes more decontextualized (Ingwersen). As you solve information problems uncertainty decreases (Kuhlthau).

The more complex the problem becomes, the more likely people will want to use other people as information sources. (Byström, 1999) As people access various types of memory, they are always bridging gaps and grappling with issues of time, and space (Dervin). People use mediating tools to solve problems (Vygotsky). Information is ubiquitous (Pirolli, Bødker). It is embedded in our world. People use groups to collaborate and construct knowledge. (Stahl) Finally, Human Computer Interaction and Information behavior are deeply rooted in design processes (Atwood et al., 2003; Atwood, Gross, McCain, & Williams, 2005; Atwood, McCain et al., 2002; Dervin, 1999a; Kane, 2007; Simon, 1996; Solomon, 2002).

The further one moves from personal sphere, the information requires more effort to obtain (Zipf, 1949). Zipf talked about the principle of least effort, and it is evident, either explicitly or implicitly in several information behavior models. Bates (2005b, p. 4) notes about the Principle of Least Effort that:

This is probably the most solid result in all of information-seeking research. Specifically, we have found that people invest little in seeking information, preferring easy-to-use, accessible sources to sources of known high quality that are less easy to use and/or less accessible. Poole
(1985) did a metaanalysis of 51 information-seeking studies, in which he found this proposition strongly confirmed. (He also has a good discussion of theory in LIS).

In fact, Poole (1985, p. 91-100) notes that many of the results of information behavior studies up to that point could be attributed to a combination of least effort and pain avoidance. Bates states that “Simon’s satisficing may be, in effect, another name for Zipf’s Principle of Least Effort.” (Bates, 2005, p. 5) But, as Bates (2005) asks, the real question is “why do people satisfice?” The answer may entail many factors. For example, the further one moves from the personal sphere, the less power and control there is over the information sources (Chatman).

Thus, you could visualize a knowledge structure where as you move outward from the personal sphere, power and control decrease, and trust decreases, but effort and authority increase. At the outermost edges of the sphere, people are less likely to want to consult the most “authoritative” but least contextualized sources. People will more likely go for the more trusted information that is close to hand (or at least, close to hand) such as their friends and colleagues, Google, or Wikipedia. Unfortunately, using libraries seem more like mountain climbing to some. The Activity Theory triangle is useful in that it shows using more mediated sources as a steep uphill slope-in other words- work!

Again, working outward from the personal sphere, risk increases, complexity increases, and uncertainty increases. The time needed to find usable information increases. The odds of breakdown increases. As you move inward, you learn and internalize information. Barriers or breakdowns may occur at any point. This type of structure
assumes that there are more zones of memory and learning than Vygotsky’s zone of proximal development. All of the various theories discussed here concern themselves with a zone of human cognition (individual, organizational, social, etc.) As people move or forage from one "information zone" to another, uncertainty, trust, control, and effort may all increase or decrease.
These relationships can be represented in a spiral pattern (see image above). The representation chosen for this view of memory is the nautilus shell. This shell or spiral pattern is prevalent in nature. The mathematical principles of the nautilus shell shape (also called a log spiral) have been discussed in terms of stock markets (Erman, 1999).
The nautilus shell has many properties, including the tendency to spiral out from a central point and then wrap back around towards the center over time. This offers a dynamism that is absent from some perspectives of information behavior as disconnected, concentric rings. In the memory in the round perspective, story and metaphor can sometimes have an affect similar to more formal types of information. As a person looks for information to solve his or her information problem, he or she may spiral out or double back or reach out from the center to pull in what is needed. A linear or non-linear (or what might be termed an algorithmic or heuristic) approach might be employed. A memory with this type of property would take into account Vygotsky’s view of memory as a process of externalization, as well as individual and social aspects of memory. However, while in Activity Theory organizational memory could be seen as just another artifact, in this perspective the concept of organizational memory takes on a more important role. A spiral memory could take into account both individual memory, organizational memory, group cognition, Hutchin’s concept of “memory in the wild,” memory in artifacts, as well as story, as memories are encoded in external forms which span ever greater distances in space and time.

As with the nautilus shell, human memory, or at the least, the human capacity to remember what librarians term as “information,” could have a certain growth pattern, which allows for expansion over time and overcomes the natural limits of the human information processor. Note that in this visualization the center is empty. It is speculated that the various types of cognition could be used in an analog order spiraling outward or brought to the center (the Bødker concept of ubiquitous substitute). The progression
from one type of memory to another could then be either continuous or discontinuous as needed. If continuous there could be various zones from one type of memory to another as suggested by the work of Vygoskky in psychology and Kuhlthau in the information science field. Memory in the round accounts for the concept of directionality – sometimes the world has an impact on the individual, and sometimes the individual has an impact on the world. Thinking of memory “in the round” allows you to consider both individual and social aspects of information and information behavior.

As we have seen, discovering information in context with theoretical tools such as Activity Theory changes how we look at the world of information behavior. Concepts such as artificial intelligence are more challenging in a collaborative context. The gap between the “information rich” and the “information poor,” may not be as wide as it appears. Acknowledging the tensions between individual and collaborative modes of research can lead us to an improved research curriculum. New designs for collaborative legal information systems and digital libraries become possible. Finally, embracing the “invisible substrate” of design at the heart of information science and design-oriented frameworks such as Activity Theory can help to integrate behavior and systems aspects of information science research.
VIII. Future Research, and Conclusion

A. Future Research

While the research into the information behavior activities of the law clinic has been fruitful, it should be noted that there are several limitations to the study which point to areas of future research and experimentation. This research involved novices working in an academic environment. The methods used in this study were heavily qualitative. The law clinic did not make extensive use of knowledge management systems. In addition, the analysis tended to concentrate on the details of one specific case. The current discussion only scratches the surface of examining legal information use environments. Many opportunities for future research are presented. Research can be pursued in areas such as legal informatics, information behavior models, legal information system design and evaluation, relevance, and artificial intelligence, and intelligence analysis.
1. Explore these findings in the field of legal informatics.

Erdelez & O'Hare (1997) provides a definition for the field of Legal Informatics, stating:

The American Library Association defines informatics as ‘the study of the structure and properties of information, as well as the application of technology to the organization, storage, retrieval, and dissemination of information.’ Legal informatics therefore, pertains to the application of informatics within the context of the legal environment and as such involves law-related organizations (e.g., law offices, courts, and law schools) and users of information and information technologies within these organizations. (Erdelez & O’Hare, 1997, p. 367)

Four areas of legal information technology in which the information behavior issues raised in this study might be applied are 1) Access (making legal information more accessible to the public with legal information portals, digital libraries, etc.), 2) Policy (such as copyright, privacy, and security), 3) Retrieval (including artificial intelligence and expert systems) and 4) Practice (court, law office, and educational technologies). See
Aspects of Legal Informatics

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<td>Legal Information Retrieval Systems</td>
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<td>Artificial Intelligence Expert Systems, etc.</td>
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<td>E-Government</td>
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<td>Digital Libraries</td>
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<td>Back Office Systems</td>
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<td>Electronic Discovery</td>
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<td>Knowledge Management</td>
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This study focused upon an academic law clinic environment which was to some extent artificial. Future research could use Activity Theory to explore how both novice and expert researchers operate in a real-life environment. The law clinic relied upon paper files as opposed to more sophisticated knowledge management tools such as Abacus Law or Amicus Attorney. Future research could focus on information behavior in either law clinics or law firms which use more technologically complex knowledge management tools in their law practice. More quantitative methods such as surveys could also be employed to determine which types of mediating tools are used by legal practitioners as well as levels of satisfaction with such tools. The current research focused upon one
specific case. More research can be done with respect to analyzing additional cases within the law clinic.

2. Work toward a more predictive model

This study attempts to draw a conceptual framework through naturalistic observation. Barbara M. Wildemuth (1990) notes that “...the development of theoretical models is not an easy task. In order to be most useful for future researchers, the model should be grounded in empirical data collected through observations of the process as it occurs in naturalistic settings.” (Wildemuth, 1990, p. 330) Wildemuth continues that “Once the researcher understands the process in the settings observed, specific propositions about the process and the environmental characteristics that affect it can be derived and tested in a wider range of settings to verify the model’s generalizability to those settings. The results from such theory development and verification, because they are based upon direct observation of the phenomenon under study, provide a solid basis for future research.” (p. 330)

Interviews and naturalistic observations could be done in law offices and other settings to expand upon the results of this study. Surveys of practicing attorneys could also be done to expand upon this research. One could compare differences between expert legal researchers and the findings from the present study concerning novices. Do more experienced attorneys work in the “no law” area and pass off situations which are more certain to less experienced subordinates? Is research practice as collaborative in the firm
as it was in the clinic? More studies can be done using Activity Theory as an information
design/Information discovery tool.

3. Improve legal research system design and evaluation

Solomon (2002) argues that “Designing interactions that provide for discovery requires
support for (1) social awareness and navigation, as people become increasingly connected
in dispersed networks, and (2) learning, as people shape or redefine what information is
during the process of interaction.” (p.253) He puts forward, creativity support, social
navigation, and flexible visualization as areas in which systems can support the
information discovery process. Perhaps more than any other discipline, legal education
focuses on critical thinking and life-long learning. Legal information system design
should help to support that learning process, including collaborative knowledge building
(Stahl, 2006), and collaborative information retrieval (Fidel et al., 2000; Karamufluoglu,
1998).

Westlaw and Lexis are also integrating more legal practice technologies into legal
information retrieval systems. Wania, Atwood, and McCain (2006) note that many HCI
authors begun to focus on evaluation of systems “situated in the context of use.”
Technologies could be developed that enhance, rather than replace systems (Bødker,
2007). Further exploration for personal knowledge organization could include
anonymous context tagging by system users to show how they used the information, or tags (Pirolli)\(^{62}\) could be used and shared within a team of researchers.

RFID (Radio-frequency identification) could be used to tag and track paper files while providing electronic search access. More systems could be designed to fit attorney reasoning processes, such as systems that retrieve by type of substantive or procedural argument, or visualization systems (see, for example, Lin & Zhang, 2007) that show connected cases.\(^{63}\)

4. Study impacts on relevance judgments in legal information systems

A chance observation showed that students who researched together had much richer interaction than students search Lexis and Westlaw alone. This phenomena could be further explored to examine collaborative relevance judgments. (Zhang, 2002)

Qualitative approaches to determining information retrieval system performance are more difficult to administer than traditional measures such as precision and recall, but provide rich sources of data on not only the performance of the system, but on the nature of the interaction between the user and the system in a real-world environment. The results of this study could also prompt further exploration in the area of collaborative information retrieval.


\(^{63}\) See, for example, [http://www.citegraph.com/](http://www.citegraph.com/).
5. Intelligence Analysts

Many forms of intelligence analysis are what we might call Sense-Making tasks. In “The Sensemaking Process and Leverage Points for Analyst Technology,” Pirolli notes that “Such tasks consist of information gathering, presentation of the information in a schema that aids analysis, the development of insight through the manipulation of this representation, and the creation of some knowledge product or direct action based on the insight.” Pirolli notes that intelligence analysts moved through two "loops" of information behavior, a "foraging loop" and a "sensemaking loop." (Pirolli & Card, 2005) Pirolli states that information processing can be driven by a "bottom-up" processes (from data to theory) or "top down" processes (from theory to data). He found “Our analysis suggested that top-down and bottom-up processes are invoked in an opportunistic mix. More research could be done with respect to the applicability of Activity Theory to analyzing the processes of intelligence analysts.

Finally, as Solomon’s Discovering Information in Context approach proposes a “socio-technical systems design science,” more research can be done to explore Activity Theory as part of the research of socio-technical systems in the legal domain, in line with research such as Elliott and Kling (1997), Hara (2001), and Hara and Kling (2002). As has been noted by writers such as Hjörland and Spasser, looking at information science from the Perspective of Activity Theory urges us to consider many traditional information science concepts such as information need, relevance and the nature of information itself in a new light.
B. Conclusion

Most information behavior models rely on an individual view of knowledge and knowledge creation. However, in this real life study of legal research in a law school clinic, information behavior was found to be far more social in nature. Information behavior theories have tended to focus on either the individual (the vast majority) or the social aspects of information behavior. The information behavior theories were quite varied, and it was useful in this study to look at the models in terms of the various aspects of human memory (individual, social, organizational, etc.).

The models and theories of information behavior which in some way take into account social and/or collaborative aspects of memory, such as Small Worlds, appeared to be more robust, and more useful in accounting for the behaviors observed in the clinic. In the law school clinic, information behavior was embedded in a context of collaboration which had an impact, either directly or indirectly, on almost every aspect of information seeking and use.

While only recently considered as an information behavior model, Activity Theory in particular was helpful as an information discovery tool in considering elements of the clinic information behavior such as rules, community, and delegation within the overall Sense-Making process. Activity Theory, seemed to account for more aspects of what actually took place in the clinic with respect to the interactions with the information artifacts encountered, the tacit rules of the social group, the community resources they
drew upon, and the general, overall propensity to delegate significant portions of the research task.

The Activity Theory conceptual framework helped to tell a fuller, richer story about the research activities within the clinic. Activity Theory is a useful discovery tool because it can be used in the field under a wide variety of conditions and experience levels with regard to the use of technology. Activity Theory allows us to tell a more directed and structured story of the information behavior moves made by a particular individual within a cultural/historical context. It provides a way of tracking a sequence of information behavior moves through a decision matrix. Its structure includes both mediation and collaborative approaches.

Activity Theory helps us understand why, applying the principle of least effort, in some instances people might go “downhill” and focus on community resources rather than going “uphill” and focusing on mediating tools such as books, databases, and libraries. It shows tensions and contradictions within the Activity system which may lead to paradoxical behavior, such as avoiding the very resources that may help most. While Activity theory alone does not show the affective aspects of information behavior very well, what Activity Theory does do is allow us to view several factors affecting information behavior in one flexible framework. In effect, it expands the concept of what an information system is to include the social sphere in which the individual operates.
Taking a broader look at the history and culture of the legal information use environment also revealed tensions between how law students are traditionally taught legal research and how they are actually engaging in legal research in practice. Much of what happens in legal research is based upon cultural factors which are often not addressed in many of the traditional models of information behavior. Legal research is traditionally taught as an individual activity in which materials from a hierarchy of authority are to be cited in legal documents. Less authoritative resources might be used for background material, but are only rarely cited as persuasive, as opposed to mandatory authority.

The context of collaboration is, in part, the reason why there has been so much ambiguity about legal research over the years. While need springs from an individual mind, and use from an individual hand, both the need and the use are deeply embedded within a social and collaborative context. Information behavior is an essential element in the process of design. Taking a discovery approach allows you to look at information from a different perspective, one of context, memory, creation, and design. In a “discovery” approach a more “round” or contextual perspective emerges by using multiple methods and considering multiple theoretical approaches to the behavior. Thinking of memory “in the round” allows you to consider the people, their work, the systems they use, and the environment in which they use them as they engage in information behavior.
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Appendix A - Text of Commonwealth v. Kelley

Supreme Court of Pennsylvania.
COMMONWEALTH of Pennsylvania, Appellee

v.

Bernard Dale KELLEY, Appellant.

Argued May 15, 2002.

Commonwealth appealed from decision of the Susquehanna County Court of Common Pleas, Criminal Division, May 12, 2000 at No. 1999-187-CR, Kenneth W. Seamans, President Judge, dismissing the rape, statutory sexual assault, and involuntary deviate sexual intercourse counts and one of the counts of sexual assault because the Commonwealth failed to present evidence of penetration when defendant allegedly “kissed” the vagina of the victim. The Superior Court, June 7, 2001 at No. 1259 MDA 2000, 779 A.2d 1219, reversed and remanded, and defendant appealed. The Supreme Court, No. 165 MAP 2001, Newman, J., held that: (1) definitions of “sexual intercourse” and “deviate sexual intercourse” include vaginal intercourse, anal intercourse, oral intercourse, and penetration by a foreign object, but not digital penetration of the vagina; (2) ordinary meaning of phrase “per os or per anus” is through or by means of the mouth or posterior opening of the alimentary canal as that phrase is used in statute defining “sexual intercourse” and defining “deviate sexual intercourse;” and (3) digital penetration may not be the basis for a charge of sexual assault.

Reversed and remanded.

West Headnotes

[1] Statutes 361 183
361 Statutes

361 VI Construction and Operation

361 VI (A) General Rules of Construction

361 k 180 Intention of Legislature

361 k 183 k. Spirit or Letter of Law. Most Cited Cases

When the meaning of a statute is plain, a court should not disregard the language of the law in the context of pursuing its spirit. 1 Pa.C.S.A. § 1921(b).

[2] Rape 321

321 Rape

321 I Offenses and Responsibility Therefor

321 k 7 k. Carnal Knowledge. Most Cited Cases

Construing “sexual intercourse” according to the fair import of its terms, digital penetration cannot be considered intercourse within its ordinary meaning. 18 Pa.C.S.A. § 3101.

[3] Rape 321

321 Rape

321 I Offenses and Responsibility Therefor

321 k 7 k. Carnal Knowledge. Most Cited Cases

Sodomy 357

357 Sodomy

357 k 1 k. Nature and Elements of Offenses. Most Cited Cases
Digital penetration does not fall into the category of either “sexual intercourse” or “deviate sexual intercourse,” and consequently, digital penetration can be classified as sexual intercourse and deviate sexual intercourse, and thereby as sexual assault, only if it is “intercourse per os or per anus.” 18 Pa.C.S.A. § 3101.

[4] Statutes 361

361 Statutes

361VI Construction and Operation

361VI(A) General Rules of Construction

361k187 Meaning of Language

361k188 k. In General. Most Cited Cases

Courts construe non-technical words and phrases in statutes, which remain undefined, according to their ordinary usage. 1 Pa.C.S.A. § 1903(a); 18 Pa.C.S.A. § 105.

[5] Rape 321

321 Rape

321I Offenses and Responsibility Therefor

321k7 k. Carnal Knowledge. Most Cited Cases

Sodomy 357

357 Sodomy

357k1 k. Nature and Elements of Offenses. Most Cited Cases

Plain meaning of term “intercourse,” as used in statute defining sexual intercourse and deviate sexual intercourse, is physical sexual contact between individuals that involves the genitalia of at least one person.
18 Pa.C.S.A. § 3101.

[6] Sodomy 357

357 Sodomy

357k1 Nature and Elements of Offenses. Most Cited Cases

Ordinary meaning of phrase “per os or per anus” is through or by means of the mouth or posterior opening of the alimentary canal as that phrase is used in statute defining “sexual intercourse” as including intercourse per os or per anus and defining “deviate sexual intercourse” as sexual intercourse per os or per anus between human beings and any form of sexual intercourse with an animal. 18 Pa.C.S.A. § 3101.

[7] Rape 321

321 Rape

321k7 Carnal Knowledge. Most Cited Cases

Sodomy 357

357 Sodomy

357k1 Nature and Elements of Offenses. Most Cited Cases

Digital penetration may not be the basis for a charge of sexual assault; digital penetration of the vagina is not sexual contact with the victim by means of the mouth or anus, and digital penetration does not fall within any of the conduct described by legislature as sexual intercourse or deviate sexual intercourse. 18 Pa.C.S.A. § 3101.

[8] Rape 321
321 Rape

321.I Offenses and Responsibility Therefor

321k7 k. Carnal Knowledge. Most Cited Cases

Sodomy 357

357 Sodomy

357k1 k. Nature and Elements of Offenses. Most Cited Cases
Definitions of “sexual intercourse” and “deviate sexual intercourse” include vaginal intercourse, anal intercourse, oral intercourse, and penetration by a foreign object, but not digital penetration of the vagina. 18 Pa.C.S.A. § 3101.

[9] Assault and Battery 37

37 Assault and Battery

37II Criminal Responsibility

37II(A) Offenses

37k59 k. Indecent Assault. Most Cited Cases
Digital penetration is excluded from the meaning of sexual assault, but such conduct falls within another crime of the same degree, namely aggravated indecent assault. 18 Pa.C.S.A. §§3101, 3125.

[10] Assault and Battery 37
Forced digital penetration of the vagina constitutes indecent assault, a misdemeanor of the first or second degree. 18 Pa.C.S.A. § 3126.

**552*182** Paul Philip Ackourey, Scranton, for appellant, Bernard Dale Kelley.

Jason J. Legg, Scranton, Charles J. Aliano, Montrose, for appellee, Com. of PA.

Before: ZAPPALA, C.J., CAPPY, CASTILLE, NIGRO, NEWMAN, SAYLOR and EAKIN, JJ.

**553OPINION**

Justice NEWMAN.

Bernard Dale Kelley (Kelley) appeals from the Order of the Superior Court, which reversed the decision of the Court of Common Pleas of Susquehanna County (trial court) and remanded the case for trial. We granted review limited to the conclusion of the Superior Court that evidence of digital penetration can sustain a charge of sexual assault, 18 Pa.C.S. § 3124.1. More succinctly, we examine if the Superior Court erred in finding that evidence of digital penetration can sustain a charge of sexual assault, where said charge requires proof of sexual intercourse or deviate sexual intercourse. For the following reasons, we reverse.

FN1. Sexual assault is defined as:

Except as provided in section 3121 (relating to rape) or 3123 (relating to involuntary deviate sexual intercourse), a person commits a felony of the second degree when that person engages in sexual intercourse or deviate sexual intercourse with a complainant without the complainant's consent.

18 Pa.C.S. § 3124.1.
On March 11, 1999, the Commonwealth filed a criminal complaint charging Kelley with forty-two counts of each of the following crimes: rape, statutory sexual assault, involuntary deviate sexual intercourse, sexual assault, aggravated indecent assault, indecent assault, and endangering the welfare of children. FN2 These charges arose from allegations that Kelley repeatedly abused his stepdaughter (the victim) for four years.

FN2. 18 Pa.C.S. §§ 3121(a)(2) & (6), 3122.1, 3123(a)(2) & (6), 3124.1, 3125(1), (5) & (7), 3126(a)(1), (3) & (7), and 4304, respectively.

Kelley waived his preliminary hearing and the Commonwealth filed criminal informations on June 3, 1999. Kelley filed an Omnibus Pretrial Motion, which included a motion for habeas corpus relief. On October 15, 1999, the trial court conducted a hearing on the pretrial motion and remanded the case to the district justice for a hearing on the motion for habeas corpus relief. During the hearing, which occurred on November 15, 1999, the Commonwealth presented the testimony of the victim; and she testified that Kelley regularly touched her breasts and vaginal area. She stated that this conduct began when she was seven or eight years old and continued until she was eleven years old. According to the victim, the abuse occurred approximately one to two times a week. She further testified that, on more than one occasion, Kelley inserted his fingers into her vagina and moved them up and down. The victim also stated that Kelley “kissed” her vagina “for a few minutes” on one occasion. (Notes of Testimony (N.T.) dated 11/15/99, at 16, 33.) At the conclusion of the hearing, the district justice bound over one count each of rape, statutory sexual assault, and involuntary deviate sexual intercourse, as well as forty-two counts each of sexual assault, aggravated indecent assault, indecent assault, and endangering the welfare of children.

Following oral argument on Kelley's motion for habeas corpus relief, the trial court issued an Order dismissing the rape, statutory sexual assault, and involuntary deviate sexual intercourse counts, and one of the counts of sexual assault. The court dismissed these charges because it held that the Commonwealth had
failed to present evidence of penetration when Kelley allegedly “kissed” the vagina of the victim. In addition, the court dismissed all remaining counts of sexual assault because the court concluded that proof of digital penetration could not support a \textit{prima facie} case of sexual assault. The court bound over for trial the forty-two counts of aggravated indecent assault, indecent assault, and child endangerment. The Commonwealth appealed.

In a Memorandum Opinion, the divided Superior Court panel reversed. First, regarding the alleged conduct of kissing the vagina of the victim, the majority held that the Commonwealth had presented sufficient proof of penetration to make out \textit{prima facie} cases of rape, statutory sexual assault, involuntary deviate sexual intercourse, and one count of sexual assault. Second, the majority concluded that evidence of digital penetration could support the forty-one \textit{prima facie} cases of sexual assault. Consequently, the majority reversed the Order of the trial court dismissing one count each of rape, statutory sexual assault, involuntary deviate sexual intercourse, and forty-two counts of sexual assault, and remanded the matter for trial.

Judge Joseph A. Hudock filed a Concurring and Dissenting Memorandum in which he agreed with the majority’s disposition regarding the sufficiency of the evidence to support charges based upon oral contact with the vagina. Judge Hudock departed from the majority in that he concluded that digital penetration could not be properly classified as sexual assault.

\textit{DISCUSSION}

In the instant matter, we granted review of a single issue, whether evidence of digital penetration can sustain a charge of sexual assault. Given that this appeal raises a question of law, our scope of review is plenary. \textit{Phillips v. A-Best Products Co.}, 542 Pa. 124, 665 A.2d 1167, 1170 (1995).

[1] We begin by examining the definition of sexual assault in our Crimes Code, because when the language of a statute is clear and unambiguous, it must be given effect in accordance with its plain and common

*185 When the meaning of a statute is plain, a court should not disregard the language of the law in the context of pursuing its spirit. 1 Pa.C.S. § 1921(b); Commonwealth v. Hagan, 539 Pa. 609, 654 A.2d 541, 544-45 (1995). Throughout our analysis, we are guided by the precept that penal statutes are to be strictly construed in favor of the accused. 1 Pa.C.S. § 1928(b)(1); Commonwealth v. Booth, 564 Pa. 228, 766 A.2d 843, 846 (2001); Commonwealth v. Besch, 544 Pa. 1, 674 A.2d 655, 660 n. 7 (1996).

Our legislature has defined sexual assault as engaging “in sexual intercourse or deviate sexual intercourse with a complainant without the complainant's consent.” 18 Pa.C.S. § 3124.1. The question of whether or not digital penetration is a sexual assault is decided by resolving the issue as to if such conduct is sexual intercourse or deviate sexual intercourse. FN3

FN3. Our discussion focuses upon what conduct is included within the definition of deviate sexual intercourse as found in 18 Pa.C.S. § 3101. We do not address the elements of the offense of involuntary deviate sexual intercourse. See 18 Pa.C.S. § 3123.

The General Assembly defines both sexual intercourse and deviate sexual intercourse in the general provisions of the sexual offenses. See 18 Pa.C.S. § 3101. Sexual intercourse “[i]n addition to its ordinary meaning, includes intercourse per os or per anus, with some penetration however slight; emission is not required.” Id. Deviate sexual intercourse is “[s]exual intercourse per os or per anus between human beings and any form of sexual intercourse**555 with an animal. The term also includes penetration, however slight, of the genitals or anus of another person with a foreign object for any purpose other than good faith medical, hygienic or law enforcement procedures.” Id.

[2][3] Sexual intercourse and deviate sexual intercourse both include “intercourse per os or per anus.” Sexual intercourse is distinct from deviate sexual intercourse in that it also includes intercourse in “its
ordinary meaning." Construing sexual intercourse according to the fair import of its terms, digital penetration cannot be considered intercourse within its ordinary meaning. See, e.g., Commonwealth v. Brown, 551 *186 Pa. 465, 711 A.2d 444, 450 (1998) ("ordinary meaning" of sexual intercourse in 18 Pa.C.S. § 3101 is vaginal intercourse). In addition, deviate sexual intercourse encompasses conduct not included within the definition of sexual intercourse, namely sexual intercourse with an animal and penetration of the genitals or anus with a foreign object for any purpose other than good faith medical, hygienic or law enforcement procedures. Digital penetration does not fall into the category of either action.FN4 Consequently, digital penetration can be classified as sexual intercourse and deviate sexual intercourse, and thereby as sexual assault, only if it is “intercourse per os or per anus.”

FN4. Because the conduct in the present case occurred between human beings, it cannot be intercourse with an animal. Also, digital penetration of the vagina is not penetration with a foreign object. A “foreign object” is “any physical object not a part of the actor's body”, 18 Pa.C.S. § 3101, and consequently, a finger cannot be a foreign object.

[4][5][6][7] The General Assembly did not define “intercourse per os or per anus.” We construe non-technical words and phrases in statutes, which remain undefined, according to their ordinary usage. 18 Pa.C.S. § 105; 1 Pa.C.S. § 1903(a); Commonwealth v. Brachbill, 520 Pa. 533, 555 A.2d 82, 86 (1989). The plain meaning of “intercourse,” as used in § 3101, is “physical sexual contact between individuals that involves the genitalia of at least one person [.]” WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1177 (unabridged 1986). “Per” has been defined as “by the means or agency of: by way of: THROUGH.” Id. at 1674. Consequently, the ordinary meaning of “per os or per anus” is through or by means of the mouth or posterior opening of the alimentary canal. WEBSTER'Sat pp. 1595 (defining “os”) and 97 (defining “anus”). Our courts have viewed the phrase “intercourse per os or per anus” as describing oral and anal sex. See generally Commonwealth v. Hitchcock, 523 Pa. 248, 565 A.2d 1159 (1989) (noting that definition of sexual intercourse encompasses forcible penetration of the three defined orifices of the body); Commonwealth v. Lee, 432 Pa.Super. 414, 638 A.2d 1006, petition for allowance of appeal denied,538 Pa. 643, 647 A.2d *187 898 (1994) (interpreting sexual intercourse and deviate sexual
intercourse to include acts of oral and anal sex). Digital penetration of the vagina is not sexual contact with the victim by means of the mouth or anus. Digital penetration does not fall within any of the conduct described by our legislature as sexual intercourse or deviate sexual intercourse. Therefore, we hold that digital penetration may not be the basis for a charge of sexual assault.

The Commonwealth asserts that the majority of the Superior Court correctly relied upon its decision in Commonwealth v. Westcott, 362 Pa.Super. 176, 523 A.2d 1140, petition for allowance of appeal denied, 516 Pa. 640, 533 A.2d 712 (1987), in concluding that digital penetration may support the charge of sexual assault. In Westcott, the court focused upon whether evidence of cunnilingus could support a charge of involuntary deviate sexual intercourse, 18 Pa.C.S. § 3123. Part of the analysis of the Westcott court included an examination of the definitions of sexual intercourse or deviate sexual intercourse found in § 3101. As part of its discussion, the Westcott court relied upon the meaning of deviate sexual intercourse under the Model Penal Code, upon which, the court noted, our legislature had based the sexual offenses in our Crimes Code. The Westcott court stated:

Similarly, 18 Pa.C.S.A. § 3123 [crime of involuntary deviate sexual intercourse] is modeled upon § 213.2 of the Model Penal Code. See Historical Note following § 3123. The Comment following § 207.5 of Tentative Draft No. 4 (later renumbered as § 213.2 and adopted at the [American Law] Institute meeting in May 1962, see supra, p. 1145) declares that the conduct encompassing deviate sexual intercourse was broadened in the Model Code to include digital penetration of a female by another female. Due to the heinous nature of the criminal activity here, we do not discern any difference between penetration by the finger or by the tongue committed by a member of the same or a different sex absent any language in the statute to the contrary. Thus, by analogy, we conclude that penetration of the vagina by the tongue was contemplated as a criminal act by the drafters of § 213.2 of the Model Penal Code and by the Pennsylvania General Assembly by virtue of its adoption of the Model Code's definition of both deviate sexual intercourse and sexual intercourse....

Id. at 1145-1146 (emphasis added).
In the present case, the majority of the Superior Court referenced the above-highlighted language as support for its holding that because digital penetration of the vagina is sexual intercourse or deviate sexual intercourse, such conduct is sexual assault when engaged in without the consent of the complainant.\textsuperscript{FN5} While the \textit{dicta} in \textit{Westcott} discussing digital penetration supports the conclusion of the majority of the Superior Court in the present matter, a plain reading of the statute reveals that digital penetration is not sexual intercourse or deviate sexual intercourse. The definitions of sexual intercourse and deviate sexual intercourse include vaginal intercourse, anal intercourse, oral intercourse, and penetration by a foreign object, but not digital penetration of the vagina.

\textsuperscript{FN5} In his dissent, Judge Hudock concluded that digital penetration does not constitute either sexual intercourse or deviate sexual intercourse. He noted that it appeared that the legislature had determined that digital penetration of the vagina constitutes aggravated indecent assault, 18 Pa.C.S. § 3125, rather than an act of intercourse.

While the \textit{Historical Note} to the provision in the Model Penal Code, which criminalizes involuntary deviate sexual intercourse, indicates that the provision includes digital penetration of the vagina, this does not require us to read our definition of deviate sexual intercourse to include the same. The provisions of the Crimes Code on Sexual Offenses is a combination of prior criminal law, the Model Penal Code, and the recommendations of the Pennsylvania Bar Association's Special Commission on Crime and Juvenile Delinquency in conjunction with the Joint State Government Commission. \textit{Commonwealth v. Rhodes}, 510 Pa. 537, 510 A.2d 1217, 1221 (1986). “[T]he Model Penal Code indeed served as a ‘model’ [for the Crimes Code] in many respects, but was only the starting point. From that model, the General Assembly proceeded to make substantial modifications, accepting some of *189 the Model Penal Code’s **557 recommendations in whole or in part, and rejecting others.” \textit{Id.} at 1223. The crime at issue in the present matter, sexual assault, is not based upon the Model Penal Code.\textsuperscript{FN6} Compare 18 Pa.C.S. § 3124.1 with MODEL PENAL CODE § 213.4 (Proposed Official Draft 1962). The definitions of some of the terms included in the crime of sexual assault contained in our statute, namely sexual intercourse and deviate sexual intercourse, are similar to, but not identical with, the definitions of those terms as used in the Model
Penal Code. Compare 18 Pa.C.S. § 3101 with MODEL PENAL CODE § 213.0 (Proposed Official Draft 1962); see also 18 Pa.C.S. § 3101, Historical and Statutory Notes (stating § 3101 is similar to MODEL PENAL CODE § 213.0). Therefore, we derive the meaning of § 3101 from the language of the provision and not from a note to the Model Penal Code.


Finally, the Commonwealth argues that the General Assembly intended sexual assault to encompass all forms of penetration, including digital. The Commonwealth refers to the reasoning of the Superior Court in this matter, that were it to find that digital penetration was not included in the definitions in § 3101, then sexual intercourse and deviate sexual intercourse would include penetration by virtually anything except the finger, which would be absurd. We do not agree.

[9][10] The General Assembly has not drafted the sexual assault provision so broadly as to encompass digital penetration. Our above examination of the plain wording of the statute and its definitions supports this conclusion. In addition, our legislature appears to have prohibited nonconsensual digital penetration of the vagina through other provisions in *190 our Crimes Code. See generally, Commonwealth v. Bishop, 742 A.2d 178 (Pa.Super.1999), petition for allowance of appeal denied, 563 Pa. 638, 758 A.2d 1194 (2000) (finding evidence of digital penetration of the vagina as sufficient evidence to support convictions for aggravated indecent assault and indecent assault). An individual commits aggravated indecent assault when that person “engages in penetration, however slight, of the genitals or anus of a complainant with a part
of the person's body for any purpose other than good faith medical, hygienic or law enforcement procedures” and:

(1) the person does so without the complainant's consent;

(2) the person does so by forcible compulsion;

(3) the person does so by threat of forcible compulsion that would prevent resistance by a person of reasonable resolution;

(4) the complainant is unconscious or the person knows that the complainant is unaware that the penetration is occurring;

(5) the person has substantially impaired the complainant's power to appraise or control his or her conduct by administering or employing, without the knowledge of the complainant, drugs, intoxicants or other means for the purpose of preventing resistance;

(6) the complainant suffers from a mental disability which renders him or her incapable of consent;

(7) the complainant is less than 13 years of age; or

(8) the complainant is less than 16 years of age and the person is four or more years older than the complainant and the complainant and the person are not married to each other.

18 Pa.C.S. § 3125 (emphasis added). It is not absurd to exclude digital penetration from the meaning of sexual assault when such conduct falls within another crime of the same degree, namely aggravated indecent assault. FN7 Also, forced digital penetration of the vagina constitutes indecent assault, a *191 misdemeanor of the first or second degree. FN8 Consequently, the Superior Court incorrectly decided that an individual may be charged with sexual assault based upon evidence of digital penetration of the vagina.

FN7. We note that both sexual assault and aggravated indecent assault are felonies of the second degree.

FN8. The crime of indecent assault is as follows:

(a) Offense defined.-A person who has indecent contact with the complainant or causes the complainant to have indecent contact with the person is guilty of indecent assault if:

(1) the person does so without the complainant's consent;
(2) the person does so by forcible compulsion;

(3) the person does so by threat of forcible compulsion that would prevent resistance by a person of reasonable resolution;

(4) the complainant is unconscious or the person knows that the complainant is unaware that the indecent contact is occurring;

(5) the person has substantially impaired the complainant's power to appraise or control his or her conduct by administering or employing, without the knowledge of the complainant, drugs, intoxicants or other means for the purpose of preventing resistance;

(6) the complainant suffers from a mental disability which renders him or her incapable of consent;

(7) the complainant is less than 13 years of age; or

(8) the complainant is less than 16 years of age and the person is four or more years older than the complainant and the person are not married to each other.

(b) Grading.-Indecent assault under subsection (a)(7) is a misdemeanor of the first degree. Otherwise, indecent assault is a misdemeanor of the second degree.

18 Pa.C.S. § 3126. As used in the statute, “indecent contact” means “[a]ny touching of the sexual or other intimate parts of the person for the purpose of arousing or gratifying sexual desire, in either person.” 18 Pa.C.S. § 3101.

CONCLUSION

We reverse the Order of the Superior Court as it relates to the forty-one counts of sexual assault based upon evidence of digital penetration. The court should not have reversed the decision of the trial court to dismiss these sexual assault charges. We remand this case to the Superior Court for further proceedings consistent with this Opinion. FN9

FN9. Under the remaining portions of the Orders of the Superior Court and trial court, Kelley still faces one charge each of rape, statutory sexual assault, involuntary deviate sexual intercourse, and
sexual assault (for an alleged act of cunnilingus), and forty-two counts each of aggravated
indecent assault, indecent assault, and endangering the welfare of children.

Pa., 2002.

Com. v. Kelley

569 Pa. 179, 801 A.2d 551
Appendix B –
Transcripts of Think-Aloud Sessions

1. Think-Aloud Transcript – Student 1 (B) – Westlaw

What the impact of various crimes is on the immigration case.

Learned on the books. Books fit Westlaw.

Annoyed me when I looked at Lexis and it game me different symbols for the section symbol.

I will look in the US Code first. I think all the immigration stuff is federal.

I will put in all the terms I can think off the top of my head and see what comes up using terms and connectors.

[Writes down cite.]

Notes ALR – “What constitutes aggravated felony for deportation. [looked at results plus]

If I don’t see anything on…will look at ALR. Yeah… I better look at that.

Its [ALR] is telling me the term I am looking for is aggravated felony. Defined under 8 USCA § 1101(a).

I may need to look at that and see if there is anything for juveniles and look at some case law as well.

I am going to look at the index of the article to see if there is anything specific about juveniles.

Next, I will look at statute and at the list of categories of offenses. Might as well check those out.

I tried to click on the main link. Beeped. Had to go back to the document viewer. Wanted to go to specific section, instead, the viewer give me the whole statute!

Tried a search – no docs – [“humph”] try statute again, ok, I think we are getting close to it.

OK, I found the spot that defines aggravated felony.
Just jotting a note. Another statute defines a crime of violence that this cross references..

OK, um... I want to look up the crime of violence citation because rape is not listed expect if you do it with a minor. I have a feeling it is listed in the definition of violent crimes so let’s make sure...

Hmmm. Ok, its kind of vague, but it probably counts.

Just looking through this index to see if there is anything extra.

They have rape listed in the index but it only refers back to the rape of a minor.

Now I am going to look at ALR articles to see what it has to say bout crimes of violence.

Ok. Ummm.. I don’t know if this will be important. I just found that the 4th circuit says that even if not called a felony, just a misdemeanor if it has a 1 year imprisonment, then it is an aggravated felony for the purposes of deportation.

[ed. At this point, he could have shepardized the on point case, looked for articles on the issue in either annotated code or periodical indexes, looked in index master for books on the topic, etc. He did none of those things. In fact, his instructor gave him a book to start with Kurzban’s – he did not look at it and went straight online.]

Uh. I’m gonna to go ahead and look at the sexual harassment offenses with a minor. I am assuming that the girl that John was with is a minor.

I’m going to make a note of another case, misdemeanor sexual assault of a minor also counts as an aggravated felony under the immigration law.

Ok, I haven’t found anything about when the person is a minor. So I am going to go back and search again.

[Scanning both left and right sides of the screen]

I’m gonna try search “immigration and minor.”

I’m gonna try looking under cases too.

Ok, unfortunately, a lot of these are returning “minor expense” or something named minor. But I don’t know if...let me try ‘juvenile’. But I don’t think that many people use that term...

[Not seeing a lot of resistance to the interface itself.]
I’m gonna look at this handbook article. It’s going to look at the definition of convictions, because there are some questions in our case about whether a juvenile disposition is separate from a ‘criminal sentence.’

Let me run through this real quick and see if there are any headings for juveniles...

Here we go... I’m gonna email this to myself in case I need to find it later. I usually don’t have a problem with the histories.

I will have to reread this later, but what it looks like is as long as they are not tried as an adult, whatever they are convicted of does not count as an aggravated felony for immigration cases.

Ok. Maybe I try to find... Ok. This is New York. But I think that this is Federal so if there is a juvenile conviction it does not count.

At some point I will look at the PA statute. In NY, it says conviction of a juvenile offense is not a crime. I want to see if PA says something similar.

[looking at 22 I&N Dec]

They keep saying (the feds) in this article how similar NY’s adjudication process is to the Feds.

I don’t know if this is important or merely helpful in analyzing a case.

This might be important language. They say “the central issue is status, not guilt or innocence…”

Ok. I actually think that was pretty helpful.

I don’t know if this article is gonna help.

[Post interview – investigator shows him Kurzban’s handbook IMLH index]

Him taking cars as a juvenile charge sounds like that should not affect his immigration case.

Ok, will probably look at this treatise some other time.

Observer – Do you use book’s a lot?

S1 – no not really.
Let me find my meeting notes.

[prefers Lexis to Westlaw for law review articles]

Want to research how his charges impact on three areas:

- special immigrant juvenile visa
- asylum
- withholding of removal
- restriction on removal
- convention against torture.

[Less familiar with Lexis]

[searches USCS – Immigration – Titles, 8, 18, 29, 42 for “special immigrant juvenile visa”]

No terms [frown]

 Hmm. Lets try “special immigrant juvenile.” Brought us to a definitions page.

I don’t know whether actually highlights your search term… I know Westlaw does.

Definitions pages go on forever…

Here is a case where there was a discretionary decision to grant a hearing on special immigrant juvenile status.

[see file for CLIENT A]

I don’t see anything…

This case is about right to a hearing

We are concerned about whether his crimes have an impact on whether our client receives special immigrant juvenile status.

[Observer note: is there any automated way to help to determine what a particular case is about? For example right to a hearing. S1 had to formulate in his mind what the case was about – formulate a location in his mental model- before he could try to match to the documents in Lexis.]
Ok. I think we are going to go into treatises. I want to double-check to see if there is anything that might be…

I am going to double-check to go into immigration law expediter[??]

Will click on “deportability” hmmm, “crimes and deportability” looked promising but uh…

Looking in Federal immigration agency decisions. “Special immigrant juveniles” Whoops. Nothing will get back to this.

Immigration law review articles… “special immigrant juveniles”
[does not seem to be limiting search to more like this]

Its wicked hot in here…

I’m gonna try another search “special immigrant juvenile” and crim!

Ok, this is an article on the Elian Gonzalez case. About special immigrant statute to protect children.
[scrolling through article]

Oops

Ok – what this is really about is whether federal or state government should have the authority to determine the custody and placement status of an undocumented child.

Ok – I am going to check out this footnote about immigration status.

Another issue we are looking into is whether a client can be declared dependent. Important because for SIJ status he must be declared dependent by a juvenile court.

[even when had problem with electronic, did not go to the book. Did not Shepardize a lot.]

May come back to the status…think I will follow the lead [link] to the statute. Don’t feel like typing the whole citation in.

I am using the find command to use the spot on the page I’m looking for. I don’t know whether a lot of people do that…

Ok, um, what it says, basically, like, we already knew this was that he must be declared dependency or if he has been placed with an agency, foster care, due to abuse, neglect or
abandonment. Only exception is if he is in the custody of the attorney general.

I assume that means federal custody. Don’t know if it fits this case.

I think must first look at state law on dependency.


Ah…wait a minute. [went back and forth between footnotes]

This says juvenile proceedings are not criminal proceedings. Reinforces what we found the other day on Westlaw concerning the federal rule…

Gonna look at the rest of this ___ and then look at that case to see what is going on.

I’m gonna Shepardize this case real quick.

It’s been decided several times, um. No negative treatment indicated for this case, so I’m assuming it is good law.

[reading the Shepard’s case summary in gray for In the Interest of R.A. PA Super 323. Took notes here]

I may read this more fully later, but it clearly says that juvenile proceedings are not criminal proceedings. Juveniles are not charged with crimes, they are charged with delinquencies.

Lets go back to that other article and see if there is anything [1 PLE Minors s34]

This turned out to be a very good article, this PA law encyclopedia.

It separates delinquent acts from criminal behavior, and it is well footnoted so we can go back later.

Ok. I noticed this earlier. Delinquent actions does not include murder or “any of the following” if the child is 15 or older and all of [defendant’s] crimes are in the list. But it states that the individual must use a deadly weapon. This is interesting. If the prosecutor decides to try as an adult, he bears the burden of showing why the child should not be in the juvenile system.

Gonna look at some footnotes [writing down the Juvenile act 562 PA 32]. Commonwealth v. Cotto, will look at that.

A little bit confused. Can’t find a footnote number.
Writing down cite to statute for when a juvenile should be tried as an adult. May not need to look at it, just curious. Don’t want to leave it out.

Looking at great summaries and core concepts.

Ok, this is just.. ok, I’m gonna go back up to the article.

That case said it’s not unconstitutional to classify some juvenile’s action as not delinquent but criminal.

Just gonna make my self a note to remember this PA law encyclopedia entry.

Just gonna run through this quickly and see if anything jumps out that will lead me down another path.

Back to research trail.

I looked at this earlier today.

Gonna look at the SIJ thing and see what it says about dependent children.

Looking at 1PLE Minors s32. Gonna look at that statute in a minute. Seems to talk about how a child can be tried as an adult and says something about dependency.

Ok. Gonna look at 42 PACS s6302. All this does is define…looking at the case annotation.

Here we go. – a section of the notes on the bottom deal with delinquency and dependency.

So far, unfortunately, in our case we want client to be found dependent to give SIJ edge with the feds.

But in all these cases, parents are working to deny a declaration of dependency.

Not exactly what we are looking for.

Here’s one. There’s a case that interprets a definition of a dependent child. Oh... it’s not good, because there is a stop sign.

[Shepard’s signal. But does not realize that part of the case may still be good law]

Let’s uh…look at another case. Ok we’re gonna go back to the other one. I think umm…apparently the definition…I think that the decision has been reversed but I don’t know if the definition is bad.
It’s a fairly vague definition but… that could be a good think if it is vague enough to include our client.

I don’t see if there is anything that could prevent him from being declared dependent.

The DA says past acts means will never be declared dependent but what I am reading seems to put that behavior squarely within the definition of dependency. A child who cannot be controlled…

I’m gonna look at case law and see if there is anything that combines dependency and delinquency, or dependency and criminal. See if that gives me anything.

[in PA state cases combined (state and federal)]

Ok. I think I need to edit my search.

[Cursor freeze, heavy sigh. Search “dependent! And crim! And “juvenile delinquent”]

I didn’t click on anything. I don’t know what happened there. Never happened to me before in Lexis. Probably the laptop.

Looked at core terms, summaries don’t seem to be on point. I have an idea…Let’s go back and do a natural language search.

[first natural language search in any of his searches. Does he prefer Boolean or natural language?]

That didn’t do anything for me either. Argh!

Back to Boolean search.

I don’t know if this is on point, but maybe it will lead us somewhere.

Maybe it is a dependency case.

There is something going on with the laptop. Its clicking on things I never clicked on.

Its acting like I am holding down the mouse button. I don’t think it is a Lexis/Westlaw problem.

Let’s see if there are law review articles on point. Looked in PA law reviews continued. Comparative labor law journals are the first choice. I don’t think so.

Here is one from Penn on criminal law defenses. That might be interesting.
Um..I guess that did not work.

Yeah. This is not on point. The only reference to delinquency is that Stalin made delinquency a crime.
Start by researching the effect of incarceration on dependency.

I will type in incarceration and dependency and see what I get.

Ok, most of what is pulled up is on incarcerated parent. That does not apply to what I am looking for.

So I am going to start over and research incarceration of juvenile.

Um, a lots of this stuff is dealing with juvenile, but going into different areas than what I am looking at. The first is about being in a women’s prison than in a make prison and arguing that it is not age appropriate.

Ok, I’m gonna try a different way. I started out by searching dependency and SIJ. I am going to go back to that route again.

There’s a case here called Yu v. Brown, which is about special immigrant juveniles which I need to learn more about. I will see if this gives me any more information that will help me.

Actually, in this case, this is not helping very much. This case is about issues further down the line in the proceedings. This case is not as helpful to me.

A lot of these cases, again are at the stage where the juvenile has already been found to be dependent.

I am going to search juvenile dependency. A lot of these dependency cases talk about drug or alcohol dependency.

That is not what I am looking for.

There’s a case that’s looking at dependency and legal guardianship. Actually, it is a California case but looking at it for background would be helpful.

This does not seem to be too helpful because there the child was taken away from parents who was seen as unfit and they were fighting to regain custody.

I will see if I can add PA back into this for searching for custody and PA.

There is a case talking bout the juvenile act of 1972. I will click on the act and see what
it is stating.

There’s a link to the amended version of the act. I will click on the act to see what the text of the act is saying.

This is showing me that some portions of the statue is repealed.

Rest seems to say must show clear and convincing evidence that the child is dependent. That is helpful to me because now I must find what clear and convincing evidence has meant in the past.

[no link to words and phrases or dictionary?]

I will to back to at and see what the categories of dependency are.

Finding in this case was that juvenile did not fit into dependency categories of the act, but was still found dependent in part upon the mother’s failure to control.

No access to printer, so will write down number and print it out later.

Again, link to statute, will click on this to find out what the categories are.

One category = in custody of state agency and no continuing contact with parent or parents = unknown. Client A might fit.

S1 also did research on that act, but we decided we would both follow up to make sure did not miss anything.

So, child can be found dependent, even if no finding of parental fault. Dependent = lack of parental care or control and such care is not immediately available.

Many cases regarding clear and convincing standard which I will come back to later.

[any way to pick out heavily used standards? Or tests]

Next, I will try and find out about the incarceration. There’s a case talking about juvenile car theft that I will click on that because if is one of the possible cases involved in the research.

A lot of this stuff in the beginning is not necessary for me. One is about what is allowed for a four year old’s testimony.

Actually, still not seeing anything on the car theft that is shown in the summary.

I think I am coming across something about delinquent acts of juveniles.
[42 PS 6302 – Note that so far she has not done a key number search].

This talks about how the system works when juveniles are involved, and how the court has the discrimination to dispense penalties other than standard jailtime.

Now running across the car theft that was in the summary. But not too helpful. Just statistics showing that the crime rate is going up.

This case is not going to be very helpful. A lot of the stats are the judge using dicta to make the discretion of the court go further.

[dicta is where a judge comments on an issue that is not one of the holdings of the case that will become precedent, ed.]

I found a case that may be helpful, but I know S1 already found some of the lead cases on that. So I am not going to keep looking (that delinquency cases are a civil matter and not a crime?)

I am going to look at a case that talks about the difference between dependency and delinquency proceedings.

This case is not relevant to my case. About a lot of constitutional issues that are not relevant to my research.

Part of the issue is that the issue I am researching is so fact specific that there will be little case law on it.

On the side I will click on the link to an AmJur article about juvenile courts and dependent children. [results plus]

Something that’s interesting is that if juvenile runs away during a proceeding, the court can request a requisition for the return of the juvenile regardless of whether the parents take answer on their own.

Some of this is about extradition. Not helpful here, because our case is confined to Pennsylvania.

Click on AmJur title “where dependent or neglected children.”

The beginning is all dealing with negligence which is not a claim on my case.

Something interesting here. Paternal grandparents claimed child. But child declared dependent because they were not legal guardians.

This case would not be good for us. Case says if child is receiving proper care or
supervision he cannot be declared dependent. But may be because John is in jail can argue not receiving proper care.

Dependency cases focus on condition and environment of the case and not on fault, but sometimes fault comes into play.

Going to check on one of the keycite notes on dependent children.

Purpose of juvenile system is to protect children and rehabilitate them from their juvenile tendencies.

This actually looks like won’t be helpful.

Seems to focus on evidence that can be used and alcohol dependency.

I’m gonna click on the link for most cited cases and see where that takes me.

A lot of this is going to rehabilitation which is not an option in this case.

I am going to try to search that statute, and see what I can come up with.

The beginning part is about definition, John seems to fit because he is under the age limit.

This is going to delinquent acts and how they are defining them in the state.

Now also defining dependent child and reviewing the types of categories.

Part of dependency determination is based upon parental lack of control which places the health or welfare of the child at risk.

Just going through the legislative history, and gonna click on section “what constitutes dependent child generally.”

I’m finding that case again that I cited before. But its also bringing up another case which says can’t be found dependent if a non-custodial parent is ready, willing, and able to provide adequate care.

This case does not really apply. Here the kinds not found dependent because there was another parent who was able to provide care. Thus did not meet the clear and convincing standards.

One of the things that’s interesting is that opposing counsel on dependency claims since Client A has been living with sister and her husband since he came to the US they are his legal guardians.
The case law seems to show that argument is not very sound. 
I’m gonna close this case and go back and look at some of the other ones. Also gonna click on this act about guardians to see how it is being defined.

[decided to write on legal pads because less intrusive]

There’s a section here about the requirement of finding dependency.

There’s a part called definition? Of child. I will check on that and see what information that has.

What this seems to focus on is the actual trying in juvenile court rather than adult court.

There’s notes of decisions on the bottom, I’m going to see if there is one on dependent child. One of the lead cases seems to be Walker v. Johnson. So I will click on that to see if it has anything.

The main focus in this case is whether mother whose kids were placed in foster care has a day in the religion of the children. But noting what needs to be shown as well.

I’m gonna write down the cite to this case again. Standard = clear, direct.

[looks at case]

The reset of the case goes to the religious background which is not important.

There’s a case again talking about the parental care. Looking at that to see what they are describing it as.

Based on In Re. N.W., which I will write down. Main Qs= whether child has adequate parental care and whether it is readily available. Client A’s arrest shows not adequate parental care. And future divorce of sister goes to fact that even less care will be available in the future.

A lot of this is going to the fact of whether there are multiple children and the impact of an adjudication of one child will have on the other children.

Notes that dependent child was deliberately defined broadly because impossible to foresee all factual cases.

A lot of these cases are going to the role of the parent, mental illness on the part of the parent, or about abuse by the parent, none of which are at issue here.

A helpful case, even though father offered to care for the child, child rebelled against the rule of the mother and court was willing to declare him dependent.
In this case, the mother had frequent contact with CYS. CYS filed for dependency because of specific delinquent act and fact that child was generally ungovernable and uncontrollable. [see In re K.A.D.]

In this case, court providing own rules of what juvenile has to do including curfews and who the child had contact with. Especially those who may have a bad influence upon the child.

Again, emphasizing the repeat disobedience on the part of the child. Which we will argue for Client A. Furthermore, the sister does not want guardianship over him, he does not have anybody who is ready, willing and able to care for him.

Now that have more background, will go back to look at effect of incarceration upon dependency.

I’m gonna try again using natural language. “Effect of incarceration upon dependency.”

Again actually not a focus on the child, rather a focus on the parent. I’m gonna change this to effective incarceration of juvenile.

A lot of them don’t seem to be too helpful. Many deal with parents and others, treats incarceration as separate from dependency.

Looking back at S1’s research to see if he has anything that would be helpful. Doesn’t seem so. Looking for a different way to search this.

I will search in a db of journals. Will do same natural language search.

A lot of this again not helpful. Not focusing on dependency.

Will search on juvenile dependency in the law review articles.

Again focus on juvenile court system and juvenile justice not dependency.

Trying another search and see if anything works with that. And there is nothing coming up on this.

So I will stop for now and look back through the file and see if there are better search terms, since I don’t seem to be having any luck at the moment.
Client I
Uses Lexis only.

Already did some research. Found books and then pulled cases online. Looked at Purdon’s [Purdon’s Pennsylvania Consolidated Statutes Annotated] in print. Researching the statutes of limitation…The employee did not file because the employer strung her along.

Looked at directory [index]. Found statute now looking at case to see if it is relevant to me.

Well get a document.

Will focus the document to get to worker’s compensation. Did not work

Only four pages, will read summary first

[scrolls. Breakdown?] Doesn’t look like it is too helpful a case. Looking to see if any cites. Very short case. Not too helpful, will try for another one. Going to get a document.

Going to next annotation. Reading case summary to see if it is helpful. Nothing in the case to lead me to another one. I think I will Shepardize to see if this case refers to another one because the facts are similar.

No cases cite to it, but there is an ALR annotation about the affect of fraud, because we are possibly dealing with fraud in our case.

Hmm… First bringing me to my case [highlighted in yellow]

Scroll through ALR article.

Ok. Just going through the topics. They list some states, will see if PA is listed. Ok. Here’s a case under PA but I think…actually…I don’t know if…actually, I don’t think that this is something that I will need to use...

Let me skim the rest. Actually, I don’t think that these cases will be worth going through at this point. Ok. There is one case that seems to be about fraud and the effect that it has on the tolling of the statute of limitations. I guess this does not have anything to do with worker’s compensation. It is about the statute of limitations but not in the context that use need.
Let me go back to Shepards. Um… I’m not sure how I got back here [breakdown?]

ALR article, here are a bunch of PA cases just under that [highlighted?] case I Shepardized.

Ok, this case looks like it will be helpful, so I will write down the case and get back to it. [marking linked case on paper. Did not refer back to history]

Ok, this case helps too so I will write this down.

I’m gonna go back to the ALR to see the other cases, there are only a few more.

I’m mostly looking for cases with similar facts where the employer acted fraudulently…

Um… This one does not really help and then I already looked at that case and it did not help.

I’m gonna look at the case the I Shepardized. I’m then gonna click on more like this and see what happens.

[Selects PA Fed & State case]

And click on core terms. Cliff off several terms [sister, traffic, personal, contacted, doctor.. Also, did not select more sources]

I hope it’s not a lot – oh – its 100. Will go back [unaware that can set the default number of hits that turns up in a natural language search]

And take out more terms…Same amount 100. Will set date restrictions for last 5 years. Still 100! Restrict to last ten years – still 100.

I don’t think that will be very helpful now.

Will go back to get a document and pull another case where the employer mislead the employee and the employee did not speak English well. Let’s check it out.

Gonna look at the overview. Gonna read the description. Actually, will read the headnotes first.

Whoo, this headnotes looks like it will be helpful, actually, a couple of these.

While statute is an absolute bar, the court can extend the statute to prevent hardship.

Click on headnote, then click on PA. No date restriction for now. 100! Some of the same cases from before.
At this point, I still have a bunch of cases I want to look at, so I don’t think it will be worth it to go through these right now.

Here’s a headnote. Oh, it’s just quoting the statute. The main worker’s comp statute, so it is not very helpful.

Oh, this is the brief display [Click on full]. I want to check out the text of the actual case so if there is anything that is helpful. [scrolls]

Just looking through the case to see if it leads me to other cases with similar cites.

I am going to click on this case [rawls (sp?) v. state] because it talks about when a court can extend the statute. I am going to look at the overview to see what the facts are. This is not very helpful because the client was straight out told was not eligible for worker’s comp. I don’t think that happened in my case.

Let me look at this case about when the judge has discretion. Will read the case summary. Does not look helpful. Will go back and look at this case [Iwaskowycz]

Cause in this case, claimant was an immigrant, did not have a good grasp on English. Asked about worker’s comp and the employer said don’t worry we will take care of you.

Also, researching the burden on the employer to notify the employee as to their rights under the worker’s comp statute.

Ok, this case is probably very helpful. The court says the claimant was lulled into a false sense of security.

I am writing the cite. I see a yellow caution sign, so I am clicking on Shepardize.

Case decided in 1972, followed in 1986, was cited by a bunch of cases and distinguished by one. Not too bad. I will click on this case that followed.

Oh- the computer just brought me to the exact language.

Let me go up a little higher [scrolls up]. I have to get some context on why they are citing that case.

This case might be helpful, but I need to get some facts about our own case like whether the client was actually told…that they told her they were filing a worker’s comp…I think on the employer just paid for things so she would not worry. Did she even know about the availability of worker’s comp?

Now I think this case is not as helpful. In this case they thought it was filed by not filed. In this case she did not think that it was filed.
Ooo. This helps though. One of the employers has a duty to inform any injured employee of their rights under worker’s comp.

Case says employer can’t mislead, but also no affirmative duty to inform which seems close to what happened in our case.

Going to read further. Seeing some cases I saw when Shepardizing.

Ok, gonna click on a case [Lavino]

Ok, this case is different. Person had worker’s comp. Says not fraud to not advise a person of their rights under the statute.

That seems important for our case. Here’s a headnote [screen “flips/flickers”] Oops, where did we go?

Here’s a headnote although it probably won’t be helpful because I bet it will come up with 100 cases again.

I’m gonna go back to where I was Shepardizing. To the one where the man was an immigrant [US Steel v. Iwaskowycz].

I think I will start with another one of these cases. I’m just gonna look through this annotated again and see if…

Most of these cases seem to be you think it has been filed and it has not. They are paying for things and you think it is ok.

Ok! Going to get a document. Getting another one of these case [from annotations.]

Reading summary. These facts will be helpful to us because never filed a claim because the employer paid the bill. Then talks about when the time begins to toll when they are making payments.

Will mark case to come back to it.

Will Shepardize because it says a little bit of caution [yellow yield signal]. The PA Supreme Ct followed it in 2002, so will click on that. Taking me down to where cited in the case.

This case talks about verbal agreement payments [Schroffer v. Worker’s cop appeal board]
I’m gonna write down the name of this case. Another thing with this case, other attorneys have said they can’t help her because of the way the statutes have run. I have to find out why they say that. I can’t get too excited about anything I find.

Let me shepardize this case. [choice given – two cases with same cite]. Two cites? Pick whichever one I wanted. Here’s another one from 2002. PA Supreme Court. Let’s click on it. No text. Not helpful.

Here’s one from 2003. These cases might be helpful if I knew the facts of our cases more clearly. I think that if the employer makes payment, statute starts to run when those payments stop. I think in our case promises of payment were made, but she paid from her own pocket expecting reimbursement.

Some of the cases on my … are coming up in this case.

[Harley Davidson v. worker’s comp appeal board]

I should note a question – did the employer pay any worker’s comp related expenses?

I don’t think our employer paid a dime of his own money.

Just looking through the annotations [paper] to see if there are any cases I want to look at.

I will go to get a document, and type in this case and see what happens.

That is actually one I already looked at. [Harrity v. Workmen’s]

[reads and marks though printout of annotated code]

On some of these, I need to go to the file to see what happened. I don’t think I can go much further without knowing more about the facts.

This helped. I think I need to go get some more fact gathering.
The other students already did a lot of research on this issue so I don’t know what I am going to add to this.

Researching how a pending criminal charge affects a dependency proceeding… Assuming Pennsylvania state law… I don’t know… Is there anything I should be doing? You’re not going to tell me, are you?

Y – Look for both primary and secondary sources, just like we taught in legal research. You never know, new journal articles and cases come out all the time, so you have to give searching a try.

A- OK – I will look for cases first, because that is the way I do things. Looking up PA-CS. Trying a natural language search. That did not work well.

Doing a terms and connectors search for criminal /s dependency.

Getting a lot of stuff with parent involvement w/ crim and dependency. But not a lot with the child. A lot of cases and procedure.

Basically, what I am trying to do is find a case that looks at all helpful and to the the key numbers and search from there.

What I will do now is search for dependency, find a case, and then tie into a more effective key number and find more information

[scrolling and browsing]

Just looking at the Keycite notes [headnotes?] at the top of the case to see if anything looks good.

I guess not. Guess I don’t know as much about dependency as I should. I have not dealt with it before. Let me read this case and see what it teaches me.

Let’s try dependency /s petition…actually I think I will put it in quotes to get them together and I will put an exclamation point after the petition.

Umm- Going to key number for dependency. Underneath it it says neglected delinquent or dependent child. I guess I will look at the broader heading to start with.

Got quite a few headnotes, will go through the headnotes and see if anything looks good.

This one is about using a criminal judgment in a subsequent criminal proceeding which is
not what I want so I will go to the next one.

These headnotes seem to distinguish criminal proceedings from dependency proceedings which is not what I want… but actually, let me take a closer look at this.

This case says evidence from a juvenile case cannot be entered in a criminal case because of the absence of constitutional guarantees.

I guess we are looking at the opposite of that… constitutional guarantees present in the criminal case… going to move on, but keep it in the back of my mind…

These don’t look even remotely applicable… About juvenile crime but not about dependency…

[Scrolls]
Found a case that talks about… nah..never mind.

Let me start from scratch. This is too general about juvenile and crime.

Going back to original screen where did a key number digest search. Searching for criminal and dependency… Getting a lot of the same cases as before… a lot of information about parents and their criminal charges [ having an effect on a dependency determination]… but nothing about the criminal act of a child…

[scrolls] Going through the headnotes.

Ok, I have gone through all 73 headnotes and did not find anything…

Maybe I’ll try criminal w/2 dependency. Umm. [reading/skimming quickly] This time the child and criminal should hopefully be closer together but that resulted in noting.

Let’s try w/4. Nope. Alright. I’m giving up on that.

Go to my research trail and go to my last case search.

Guess I’m a little frustrated because I know other people have looked for this and found absolutely noting. So I will go back to another case and see if I can get educated about it.

I will add dependency proceeding to my search. I will make it w/2.

OK it looks like a general use that says the state has an independent interest in making sure that juveniles become productive members of society.

Will look at the key notes quickly, or whatever they are called. Best interests of the child… standard of review [heavy sigh]… [scroll, heavy sigh]…”here is a case that talks
about the state interest. The state interest only arises when it is clear that the natural
caretakers cannot or will not take care of the child. That is like our case in that the
mother is dead and the father is in Columbia somewhere. The keynote about health
and morals of the child may be helpful. If I could, I would print and read this case. I
think I will get a pen and scribble down some notes. I will write notes so I will have
the cites and all of the applicable key numbers. Still don’t necessarily care about
the facts of this case because they probably do not help.

Case seems good. Lays out basic requirements, basic justifications, and spends some
time defining the language that seems to come up.

Ok, kind of sick of doing this. Let me go back to keycite. Especially the one about
protection of health and morals.

Maybe that’s too broad of a search. Not too bad. 142 results [more tolerant of a large
result set than student S]. Now in most cited cases. Let me read the blurbs and see if
there is anything that looks promising.

Since I’m kinda looking for general info on dependency…maybe a sympathetic
argument. I know the headnotes are very specific to the facts of the case
which don’t help me because I am looking for more general justification. I will have to
read the cases for that.

How am I doing on time?

Don’t seem to be getting anywhere. Would generally quit and come back to it.

As far as how I would go about trying to find something factually applicable, if it did not
work, and I don’t know what to do I guess.

Back to the intro screen and PA-CS. Maybe I will try child! “criminal act!” And hope
the judge using the same language I am using. W/s dependency. But I bet that it is too
specific. Yep nothing.

Try again… nothing. Basically what I am trying to do is keep child and criminal act
together and not deal with the parent’s criminal act.

Another search [nothing]

Another search. 32 hits = similar to another search I did.

Again, child and crime separated, so I am going to say w/2. One case.
[reads]

This has absolutely nothing for what I am looking for about nursing home abuse.

Lets try…Nothing!

Going to be honest. I guess I struck out..

Camera off

I have a message out to one of the experts. Expert A.
Issue: Service issue. Who can we serve in a company and who can we service in a corporation. This is for the Client G case. We filed a complaint in Federal court and we got back that we must serve. There is both a company and a corporation involved.

There’s this one guy named xxx, and we want to see if we can serve his wife because we don’t want a personal confrontation.

I only do Lexis. I guess I liked it ever since first year when and I saw it and, wow! There are all these colors there! Westlaw was so very..blue. I don’t even know what my Westlaw number is.

Uh..lets see. I guess I will choose PA state and federal cases since this is the only thing I can chose here [chooses from the last 20 on the drop down menu].

I use natural language. Will type first “federal service at a company.”

Some cass came up and…they are about corporations.

Uh. Well, I’m gonna go back and type “who can we serve at a company.”

Oh, the other part was, can we personally serve him or have someone else do it since we are the attorneys. I think we determined we could by reading the form.

Still not getting anywhere.

I will try “personal service.”

What do you want me to tell you? Do you want me to summarize?

Observer – Just say whether you are clicking on the case. You don’t have to summarize each case.

I will look at this case for the ‘who do you serve’ issue. [Kumar v. Temple]

It looks like the employee attempted to serve an employer…Hired a courier service…people in the office claimed service wasn’t effective…hmm, guess I have to
look… it gives me a rule of federal civil procedure 4m.

Click on link to 4M.

4M says…Oh is about time of limit. Have 120 days.

There is a part that says service upon a corporation shall be effective by…[reads rest]

Doesn’t really help much though.

It also says that if delivering individual if you go to individuals hose r place of abode, can leave it with a person of suitable age and discretion.

Also talks about waiver of service, which we contemplated in one of our meetings. But it takes a lot of time. We want to get this case to court as soon as possible.

It says who can service. Anyone who is not a party and over 18 years of age. That is another issue. We are not a party, but are we made a party as representatives of the clinic.

Trying “service by a lawyer” no documents.

Trying “who can serve” no documents.

Typed who can serve under different research, not under focus terms but under natural language and got some cases.

[interface breakdown? Using a different Lexis interface than the summer students. In the new interface, can enter focus terms on the same screen as the results.]

But they are all coming back about prisoners serving time.

Sorry, I am bad at this.

I will try. “Who can serve a summons…ok”

And these are all about services made to later.

All of these are about service being made 5 or 8 years afterwards, or there are bad faith issues…

I will go back, and type “service on defendant.”

And this is about military service. This is a limo service.. public service commission…

This one talks about service by certified mail, but we did not even consider that yet.
Service meter at electric company… um…

I’m gonna go back again and…

I’m gonna type in. I may already have done this, I’m gonna type in “service on a company.”

Alright, the number one case sounds interesting at first because service on wife who was not in fact the company secretary [Durham].

But may be good to look into. Will look into headnotes. The first headnote is a Pennsylvania rule of civil procedure. Need a federal one but… [ reads rule]

And it talks about service on a person’s residence again. So gonna click to go down to headnote one. So want to scroll down to see how they apply that to the facts of the case. And it talks about why they thought she was the secretary of the company.

But it doesn’t give us anything we need.

Sorry.

Sometimes my searches take hours. And that is because of the way I go about them. Maybe I am a bad person to watch…

Service of water…service of telephone…public service commission again…

Need to find a way to weed out the word service.

[Terms and connectors? Did not seem to consider the possibility]

[Notes several words in wrong context. “Transportation services”]

I’m gonna try using quotes and use “service of complaint and see if anything comes…hmmm.

Talks a lot of mailing service to foreign counsel…

Here’s a case I will go to… Holzman v. Sluter.

[reads summary]

“Even though attorney….

Going to headnotes.
Attorney has no right to accept service except for the action for which they were employed. This is not exactly my issue.

[reads case]

Just talking about bad service.
7. Think-Aloud Transcript – S5(S) & S6(L) - Lexis

Session starts with S5 working alone on Lexis. S6 joins in later.

S5- Lexis
Went into state court cases. Which is wrong and not what I meant to do. So I am going to PA state and Federal cases. Is there a way to get just PA state court case?

Looking up an affirmative duty of an insurance agent. So I want, maybe auto insurance. Maybe too general. So I am running a search to get insurance agent or negligent or negligence and duty.

273 [results]

There is focus, Did they move it?

Observer- Yes

Going to focus and add “auto insurance.” Knocked down to 60.

Now – I am just looking to see what kind of cases I picked. [scrolls]

Hmm. I don’t think, well, its citing a case so I will go look… I’m looking for the case it cited in the hits.

Well…
Its supposed to be about auto insurance but it is about worker’s comp.

These [are] about cases that…benefits were changed when the policy was changed. Rather than not submitting the correct policy. But I’m not sure.

We do have a law review article about negligent insurance agents that was in the research file. Maybe we can shepardize that…

Tries a search in law reviews and journals, combined.

Of course, it does not come up.

[Scrolls cite list]

Need one of those developments in case law articles.

[cant find article]

Do you want me to get the article and shepardize it?
Observer—Whatever you would naturally do?

Ok [pull article from research file—online printout—Liability of insurance sales professionals for negligent “Errors and Omissions: A review of Pennsylvania Law.” 70 PA Bar Assn Q 56]

Clicks on Shepardize [Gets error message]

[tries again—error]

Guess that means it has never been cited. Great.

[Goes back to article.]

It mentions a couple of cases. I will click on the links to see what cases they lead to.

[clicks on hypertext link]

Ordinarily, I guess.

In this case they would not pay damages because of exclusion clause. But here it is a company whereas in our case it is an individual. But it is just bad for us.

[S6 (L) enters: S5 (S) summarizes progress on the case she chose to research to S6 (L).]

L — did you put in “affirmative duty?” I’ll write things down.

S— I went into PA state and federal cases.

L— I never use Lexis.

S— I never use Westlaw. I couldn’t tell you how to use it.

S— Should I put in “affirmative duty?”

L— We want something about writing the policy.

S— Omission, because omitted.

L — Let’s try “required question”

S – requirements!

L— required questions and requirements. OR requirements
S- 520 [results]

L- Ok, let's do. Let's limit by auto, something

S- Well, we should probably have something in here about negligence

L – Um hm..

S- Maybe we should put something in about… [types in “insurance and negligence”]

S – 4L

L- That’s good

[scrolls cite list]

S- maybe we should read it.

L – maybe should search for negligent agent

S- how do we do that?

L – I don’t know. I never use Lexis! Just add it to the end..

S- Cut down to 3! [takes turns reading text]

S – hm

L [reads] hm

L- [writes down cite of case “Prudential Property”]

S- Goes to link [Restatement 2d of torts §299].

L – I wonder about the process they would use… can we find out about that?

S – Um, we should se if this has ever…

S- [ points to link] that’s the one we saw before. Clicks on link.

This is about financial issues…

…reads

S- What is this? [PA Legal Journal]
L- I don’t know.

S – Write this down…[reads some more]

L – can you email this to yourself. Not that it is exactly on point.

S- Whoa. Why is that there? [email address] is it saved? I didn’t know that.

S- Should we look at other cases?

L – um hum

S- well, there were only three.

S – Hm, here’s a Pennsylvania insurance department case.

L – OH! [points to link]. Want to look at it.

S- [clicks on link]

L – 1953

S- Super

L- Failed to use encumbrances on new vehicle.

S – don’t know that that is. Should we look at the Petersen case?

L – [clicked on the Get a Document tab – entered 133 PLJ 437 ]

S- Errors

L – Westlaw does not do this!

S- goes to citation format box. If I knew what PLJ was that would help.

[they try some more options – fail]

L - Can’t find it. Do not know what PLJ is either. Maybe we should switch to Westlaw?

[Observer indicates that that might be a good idea. L takes over computer and switches to Westlaw.]

[L uses the “find by title” feature. Can’t find it.]
L- How is it not in existence?

L – Maybe it is not a specialized court… [goes back to find. Tries another jurisdiction.]

S—Do all [jurisdictions] and see what comes up.

L [types]

S- “proceeding”

L – [scrolls]

S- probably not there because it would be the first one [in the list]

L – scrolls

S- What about that, Peterson, number 6.

L – But its Florida

S – Well, they said a sister state, what does that mean?

S – we can go back to case to find it again. I emailed it to myself, didn’t I?

L – Goes back to another case. Scrolls.

S – Did you notice that it was never something I could click on?

L – Look like an unpublished case. Won’t be useful anyway.

S – What about that one [points to link.] [Clicks on link]

L- Bad thing about these is that there is no liability for failing to explain hypothetical consequences. [Banker v. Valley forge]

L – Whoa! Printing! [printer screen comes up without prompting.

L – Goes to keysearch [ browses the insurance category, and then agents and brokers]

S – fraud or misrepresentation

L – but he didn’t- let’s do “fiduciary duties.”

[selects jurisdiction] What do we want to do?

S- inquire….
L- types duty to inquire in search term box.

S – Was he an agent of the insurance company or a broker.

[Reads from Law Rev article]

S- I think he is a broker

L – [views results] Yeah – I think is dealing more with…. [goes back to keysearch]

S- Maybe search for negligent broker instead of negligent agent.

S [reads cases and headnote. Hm. Where plaintiff fails…. No

[scrolls down to another headnote] ..reasonable case, skill and diligence”…hm

[scrolls] …in a suit against an insurance broker…

S – this case is from 1945

L – you think that’s wrong?

S – Yeah! 1945!

S- [reading article printout] here’s a case that seems might fit but from…

[reads under her breath]

oh

L – [reads] “does not include a heightened standard of care on an insurance broker.”

S – Super [sardonically]. Good thing we don’t live in Jersey

L – Why. I am in Pennsylvania Federal and State. Why did we get a Jersey case?

S – Are we in the same Federal district as Jersey?

L – Yeah. 3rd Circuit. Back to keysearch box.

[ponders search under breath]

Ok, we got a couple more.
L – I’m just looking at ALRs. Sometimes the side leads you [reference to Westlaw Results plus cite list enhancement]

L- [reads]

S- That’s not good

L – true, but that’s DC. Let’s go back to the top because they have a breakdown by state too.

S – I think that’s PA. 1909.

L – Yea. Let’s see what’s that about.


S- I think we should to the statute.

L – Ok. That pulled up more stuff.

[reads]

S- That might be good.

L- Umhm

S- 2003

L – Agent was negligent for failing to obtain all info….

L – But did the agent in our case say, it would be great if he said “yeah.” Let me email this case to myself. [tape ends]

S- We can call Westlaw. That my last resort. I say, I am annoyed and they do the search for me.
S- Can there be an exacerbation of an injury that has been determined to be fully recovered?

A- Do you want me to do what I usually do? Yolanda does not like what I do. She likes secondary sources. I go straight to the cases.

[types search: work! Comp* /p exacerbation and fully recovered]

A- Nothing. Ok, here’s the plan…

S – Maybe we can go into worker’s comp sites?

[A types search: “worker’s compensation”]

A-Nothing! What?

A- Let’s try a natural language search. I don’t want to fool around with this stuff.

[Went to keysearch? winds up at the custom digest screen. Added natural language search. Scrolls through headnotes]

A - Problem is that they probably don’t use the term exacerbation.

What about subsequent employer?

S- What about full recovery?

A - Should put it in quotes.

[looks at result]

Are you kidding me!

Nothing.

S- Why don’t we try “fully recovered?”

A- Fully recovered?

S- Yeah sure
S- Just looking at what we picked at the top. [looking at keysearch categories]

A- I chose the broadest category.

[Scrolls]

[gives up]

A - Let’s try some secondary sources. [goes to directory]

S- Let’s try law reviews.


[types search worker’s compensation]

S- Get rid of that thing! (referring to quote after worker)

[A tries search again, without the quote. Gets a results too many search results error message.]

[A tries another search]

A- Too general

S- Why not add exacerbation?

[A changes search]

S- 25

A- There you go!

[A reads summaries of articles]

S- What about that one! [points to article on exacerbation of preexisting conditions]

A- Its a law report. Right about now I would try to find an annotated statute, but I can’t do that online.

[Observer- actually he can. However in a previous session he had expressed a preference for researching statute in print. Is this a breakdown?]

What about this...[reads]

No, its an Iowa article about heart attacks.
A- Maybe search for a preexisting condition?

S - What about “post full recovery”

[A types search]

S- Are we in case law now?

A- Uhhuh

S- or, “workers compensation”

A- But we already tried that and full or fully recovered so adding post wouldn’t...let’s try worker’s compensation without the quote.

A- What do you think the most common word would be. Maybe recovered would be...

[A types]

A- Two! Here we go!

S- One is subrogation

A-The other is the same case. Nice.

[S reads aloud] Original

[A reads aloud] Back injury

A-Hm

S- This seems like a weird fact pattern.

A- Pennsylvania case

A-This stuff sounds familiar. Employee benefits. Hm..

S-Can you shepardize it.

A-If I were using Lexis I could!

[goes back to citation list]

S- What is that here? [points to results plus display]
Scroll down. [A scrolls down]. Oh, What’s that? What about this?

A- Tell me which one you like. What about “obtaining worker’s compensation for back injuries.”

S-Ok

A-Only like what, 1000 pages! Here’s a mini index. “Aggravation of a back injury.” Yeah [reads]. Whoa! “Continuous or cumulative back conditions.”

S-There was a single event that caused this.

A-Is this an occupational disease now?

S- But the court said the client was “fully recovered.”

A- Oh, so this research is useless!

S- Maybe it is a new injury.

A- [reading from index] “cumulative injury found.” Ok.

But, this is all about having a pre-existing condition and getting into a big accident, rather than getting into an accident and then double dipping.

S- Back injury...

A- Maybe we should read this case.

S- Click on it!

[A clicks and reads] That’s our man!

S- Maybe there isn’t PA law on this.

A- This looks pretty good.

S- See if there are any headings on it that look good.


Let’s hit up most cited cases. [goes to a headnote and clicks on the most cited cases link]

[reads] Hm, these are all PA [cases]...
S- Yeah, when we went back, it took us back to PA

A - Well, I guess this is where we want to be!

S- Well we ever find our way back here?

[Seems to be unaware of the research trail option]

[Reads]

Oh, we are going to have problems because if there is a prior injury the current employer is not responsible.

A- And we already signed the release agreement?

S- Needs to be a new injury?

A- In real life I would start reading these cases and see where that got me.

[A goes back to custom digest. Reads]

Yeah. This sounds good.

[Scrolls through list] Write this down, “821 A2d 175, South Abington.”

S- [Looking at another case on the list] Boy, this looks bad. Write this down?

A- 2002 WL 1859027

S- This looks real bad.

A- What’s this, “aggravation of prior injury determined to be new injury...”

Huh...

If it is aggravation, one employer is responsible.

A- “Reliable foods - 660 A2d 162”. Got a yellow flag though. [Clicks on the flag to go to Keycite] Distinguished, NOT overruled.

S- Bad. “Where received benefits for first prior injury...”

A- No- can’t claim recurrence...unless...wait...another case says same exact thing, 27 A2d 287, AL Breath

[scrolls]
I think that’s pretty much the good stuff.

[session ends]

Off tape.

Observer to A - it seems as if you did a lot better working with a partner.

A- you get a better sense of validation about what you are doing.
VITA

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