

Expansive Legal Research

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Abstract

This article will introduce an approach to teaching legal research called Expansive Legal Research. The Expansive Legal Research perspective is based upon dissertation research on legal information behavior at a law school legal aid clinic. This approach is inspired by an educational perspective called Expansive Learning, which in turn has roots in the psychological theory called Activity Theory. The Expansive Legal Research perspective includes elements inspired by Expansive Learning and Activity Theory such as a focus on an activity-centered context of both the individual and social aspects of human behavior; the design-oriented nature of human problem-solving; the role of tacit knowledge and unwritten rules in daily activity and practice; and a cultural historical approach to learning and development, where both the user and their tools are undergoing a constant process of growth and change and transformation. An Expansive Legal Research approach, and the theory it is based upon, may provide new insights into legal research instruction, and may be a useful tool for legal research instructors.

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I. INTRODUCTION—THE BOULDER STATEMENTS AND THE THEORY MUDDLE

Traditionally legal research has been seen as a closed system. It is often depicted in terms of a closed loop or flowchart with sequential steps that involve unchanging hierarchical authorities. A theoretical or philosophical foundation for the legal research process is seldom presented in legal research instruction. The Boulder Statements on Legal Research Education¹ assert that librarians who teach legal research to have a theoretical foundation upon which they base their teaching and learning objectives. The Boulder Statement on Legal Research Education: Signature Pedagogy Statement summarizes: “Using the Carnegie Report’s analysis of a signature pedagogy, attendees at the Conference on Legal Information described the surface structure, deep structure, tacit structure, and shadow structure of a signature pedagogy of legal research education. The Carnegie report defines the surface structure as the features and behaviors of a pedagogy that are readily apparent. The deep structure comprises the

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¹ *Boulder Conferences on Legal Information: Scholarship and Teaching*, <https://lawlibrary.colorado.edu/boulder-conferences-legal-information-scholarship-and-teaching>. See also THE BOULDER STATEMENTS ON LEGAL RESEARCH EDUCATION: THE INTERSECTION OF INTELLECTUAL AND PRACTICAL SKILLS (Susan Nevelow Mart ed., Heinemann, 2014).

underlying theories or models behind the surface structure. The tacit structure refers to the values modeled by the surface structure. The shadow structure is that which is missing or the values that are not engaged through the pedagogy. The four structures together describe the pedagogy.”² Librarian and researcher Barbara Bintliff discusses the goals of the Boulder Statements in the Introductory Essay in *The Boulder Statements on Legal Education: The Intersection of Intellectual and Practical Skills*. Bintliff states:

The Boulder Statements envision legal research education as an intellectual, analytical, and iterative process. The statements’ goal is to teach students to think strategically about their research processes, understand the sources they are using and why they are useful, analyze their results, and engage in continual adjustment of their strategy and evaluation of their results until reaching a resolution to the research problem. The pedagogy based on the statements is intended to be flexible, to allow for a variety of teaching methods, and above all, to emphasize the intellectual aspect of legal research and its pivotal place in legal education.³

This article will introduce an approach to teaching legal research called Expansive Legal Research, which will explore the “deep structure” comprising “the underlying theories or models” of, primarily, an Advanced Legal Research course. The Expansive Legal Research perspective grew out of dissertation research on legal information behavior at a law school farmworker legal aid clinic.⁴ This approach is based upon an educational perspective called Learning by Expanding (or Expansive Learning),⁵ which in turn has roots in the psychological theory called Activity Theory.⁶ Both Expansive Learning and Activity Theory have been recognized in the areas of information science⁷ and Human-Computer Interaction (HCI).⁸ These theories, and the expansive legal perspective that builds upon them, will be examined because they encourage a focus upon an activity-centered context of both the individual and social aspects of human behavior; the design-oriented nature of human problem-solving; the role of tacit knowledge and unwritten rules in daily activity and practice; and a cultural historical approach to learning and development, where both the researcher and their tools are undergoing a constant process of growth and change and transformation. This article will share how this perspective greatly influenced how I teach legal research and the themes that I emphasize

² *Boulder Conferences on Legal Information: Scholarship and Teaching*, <https://lawlibrary.colorado.edu/boulder-conferences-legal-information-scholarship-and-teaching>.

³ THE BOULDER STATEMENTS ON LEGAL RESEARCH EDUCATION: THE INTERSECTION OF INTELLECTUAL AND PRACTICAL SKILLS (Susan Nevelow Mart ed., Heinemann, 2014). P. xii.

⁴ Yolanda Patrice Jones, “*Just the facts Ma’am?*” a contextual approach to the legal information use environment (2008), <https://idea.library.drexel.edu/islandora/object/idea%3A2837>.

⁵ See YRJÖ ENGSTRÖM, LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH (Orienta-Konsultit Oy. 1987). <http://lchc.ucsd.edu/MCA/Paper/Engstrom/expanding/toc.htm>; Yrjö Engeström, YRJÖ ENGSTRÖM, LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH (Cambridge University Press 2d ed., 2014); Yrjö Engeström & Annalisa Sannino, *Studies of Expansive Learning: Foundations, findings and future challenges*, 5 EDUCATIONAL RESEARCH REVIEW 1 (2010), <http://www.helsinki.fi/cradle/documents/Engeström%20Publ/Studies%20on%20expansive%20learning.pdf>; Yrjö Engeström, et al., *Expansive Learning in a Library: Actions, Cycles and Deviations from Instructional Intentions*, 6 VOCATIONS AND LEARNING 81(2013)

⁶ See SUSANNE BØDKER, THROUGH THE INTERFACE : A HUMAN ACTIVITY APPROACH TO USER INTERFACE DESIGN (L. Erlbaum. 1991); YRJÖ ENGSTRÖM, LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH (Cambridge University Press 2d ed. 2014); Olav W Bertelsen & Susanne Bødker, *Activity Theory*, in HCI MODELS, THEORIES, AND FRAMEWORKS: TOWARD A MULTIDISCIPLINARY SCIENCE (2003); Wolff-Michael Roth & Yew-Jin Lee, “*Vygotsky’s Neglected Legacy*”: *Cultural-Historical Activity Theory*, 77 REVIEW OF EDUCATIONAL RESEARCH 186(2007); LEV S. VYGOTSKY & MICHAEL COLE, MIND IN SOCIETY: THE DEVELOPMENT OF HIGHER PSYCHOLOGICAL PROCESSES (Harvard University Press, 1978).

⁷ See Mark A. Spasser, *Thematic issue: Activity Theory and information studies - Issue editorial*, 12 INFORMATION RESEARCH (2007) <http://informationr.net/ir/12-3/geditor123.html>; T. D. Wilson, *A re-examination of information seeking behaviour in the context of activity theory*, 11 Information Research (2006), <http://www.informationr.net/ir/11-4/paper260.html>; T. D. Wilson, *Activity theory and information seeking*, 42 ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY 119 (2008). <http://dx.doi.org/10.1002/aris.2008.1440420111>.

⁸ See SUSANNE BØDKER, THROUGH THE INTERFACE: A HUMAN ACTIVITY APPROACH TO USER INTERFACE DESIGN (L. Erlbaum. 1991); Olav W Bertelsen & Susanne Bødker, *Activity theory*, in HCI MODELS, THEORIES, AND FRAMEWORKS: TOWARD A MULTIDISCIPLINARY SCIENCE (2003).

in my legal research courses. The theories upon which this approach is drawn are from the field of Human-Computer Interaction research, which I initially encountered while researching legal information behavior and design issues in legal information systems. An Expansive Legal Research approach, and the theory it is based upon, may provide new insights into legal research instruction, and may be a useful tool for legal research instructors.

The Theory Muddle

It should be noted that Expansive Legal Research is only one of several theoretical approaches that have been used by legal researchers to create a theoretical framework for legal research services and instruction either independently or in light of the Boulder Statement. These include Bloom's Taxonomy and hierarchy of needs,⁹ cognitive psychology theories such as schema and mental models,¹⁰ distributed cognition, actor network theory,¹¹ and my own earlier work with Activity Theory.¹² Judith Lihosit, who has written about actor network theory, also wrote about what she called "distributed social networks."¹³ Lihosit states:

Specifically, my research did not support assumptions about attorney research that privilege the West digest system, or believe the digest system plays an important role in helping attorneys determine the controlling legal concepts and principles in the cases they handle. Instead, the model I discovered in my study is one where attorneys develop their knowledge base from distributed social networks, what I call the present-day manifestation of the apprenticeship system, rather than from any individual and controlled textual source such as the digest. The research tools attorneys use depend on what the other attorneys in their networks use. Therefore, while the specific format of materials and the techniques of research may change over time, those changes are filtered through that network of attorneys. This network itself adapts to changes in external conditions, thus acting to mediate the rate of change, and subsequently lessening the impact that those changes will have on how attorneys do their research.¹⁴

More broadly related to the Expansive Legal Research approach introduced in this article is a viewpoint called "Acting with Technology." The series forward to the MIT Press Acting with Technology Series states that an:

"Acting with Technology" perspective is "...concerned with the study of meaningful human activity as it is mediated by tools and technologies... The focus of the series is on tool-mediated processes of working, playing, and learning in and across a wide variety of social settings. The series explores developments in post cognitive theory and practice from the fields of sociology, communication, education, and organizational studies, as well as from science and technology studies, human-computer interaction and computer-supported collaborative work. It aims to encompass theoretical frameworks including

⁹ See Paul D. Callister, *Time to Blossom: An Inquiry into Bloom's Taxonomy as a Means to Ordered Legal Research Skills*, 102 L. 191 LIB. J 198 (2010). <http://www.aallnet.org/mm/Publications/llj/LLJ-Archives/Vol-102/publljv102n02/2010-12.pdf>.

¹⁰ See Stuart Sutton, *The Role of Attorney Mental Models of Law in Case Relevance Determinations: An Exploratory Analysis*, 45 JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE 186(1994); Anita Komlodi & Dagobert Soergel, *Attorneys Interacting with Legal Information Systems: Tools for Mental Model Building and Task Integration*, 39 PROCEEDINGS OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE AND TECHNOLOGY 152(2002); Stefan H. Krieger, *The Development of Legal Reasoning Skills in Law Students: An Empirical Study*, 56 J. LEGAL EDUC. 332 (2006), http://scholarlycommons.law.hofstra.edu/faculty_scholarship/569.

¹¹ See Judith Lihosit, *Breaking Down the Black Box: How Actor Network Theory Can Help Librarians Better Train Law Students in Legal Research Techniques*, 106 LAW LIBRARY JOURNAL 211 (2014), <http://www.aallnet.org/main-menu/Publications/llj/LLJ-Archives/Vol-106/no-2/2014-12.pdf>.

¹² See Yolanda Patrice Jones, "Just the facts Ma'am?" *A contextual approach to the legal information use environment* (2008). <https://idea.library.drexel.edu/islandora/object/idea%3A2837>.

¹³ See Judith Lihosit, *Research in the Wild: CALR and the Role of Informal Apprenticeship in Attorney Training*, 101 LAW LIBR. J. 157(2009), http://aallnet.org/main-menu/Publications/llj/LLJ-Archives/Vol-101/pub_llj_v101n02/2009-10.pdf.

¹⁴ Judith Lihosit, *Research in the Wild: CALR and the Role of Informal Apprenticeship in Attorney Training*, 101 LAW LIBR. J. 157, 158 (2009), http://aallnet.org/main-menu/Publications/llj/LLJ-Archives/Vol-101/pub_llj_v101n02/2009-10.pdf.

cultural-historical activity theory, actor network theory, distributed cognition, and those developed through ethnomethodological and grounded theory approaches”.¹⁵

Paul Maharg, in his treatise *Transforming Legal Education*,¹⁶ states that “Theory... Matters a lot. It is much more than a set of abstract concepts that explains practice. It enables a clearer understanding of legal educational practice and experience. It may take many forms—conceptual analysis, research reviews, model building or analysis, Ground-up theory, Activity Theory and the like.”¹⁷ Maharg further states that “some may be a little more than conceptual frameworks or scaffolds, while others may be thoroughly researched positions that are embedded in practice and with a body of literature attached to them. Many theories overlap or feed off each other. Theories will often rival each other, and in their alternative views of phenomena they give us the opportunity to see things differently.”¹⁸

Before starting a discussion of still another theory or new approach that may be applicable to legal research, it should first be noted that if asked, many librarians and legal research professionals would not believe that they take any particular theoretical approach to how they teach legal research, or approach the provision of legal information services in general. Many might question the relevance of theoretical approaches to the teaching of legal research or running a law library. However, many times a librarian has opinions about information behavior and information services that grow from their coursework and the philosophical emphasis of the graduate school they attended. As the theoretical approaches of a particular instructor or library school may not always be explicitly stated, a librarian may accept these points of view without much reflection or challenge.

No matter what approaches a librarian uses for a problem or situation, or on which to base an opinion there are often assumptions, either conscious or unconscious, stated or unstated, that accompany it. Stephanie Davidson, in her article “Way Beyond Legal Research,” asks “To what extent does a scholar’s methodological tool or approach implicate or dictate the research process and the information-seeking activities that make up that process?”¹⁹ She notes the work of leading research methodology scholars Egon G. Guba and Yvonna S. Lincoln, who “categorized scholarly work based on the foundational assumptions scholars make about the world and their goals for producing new knowledge.”²⁰ Davidson also noted the work of J. Douglas Toma, who “divides legal scholarship into four paradigms: Formalist, Realist, Critical, and Interpretive.”²¹

If one’s perspective is from the social sciences generally, the basic debate often revolves around how much of human behavior has its origins in the actions of individual agents as opposed to social groups or larger societal structures.²² Law is a social science. However, there is little comparative discussion in law librarianship of the different perspectives that are used to analyze social phenomena and how they may influence our approaches to instruction and services. A particularly useful viewpoint was put forward by philosopher Martin Hollis, who notes that in social science research, one can look at social phenomena individually (parts) or holistically (wholes), with methods that are geared towards explanation of phenomena and their causes or more general understanding of social

¹⁵ GERI GAY, *ACTIVITY-CENTERED DESIGN: AN ECOLOGICAL APPROACH TO DESIGNING SMART TOOLS AND USABLE SYSTEMS* (MIT Press, 2004). See also VICTOR KAPTELININ & BONNIE NARDI, *ACTING WITH TECHNOLOGY: ACTIVITY THEORY AND INTERACTION DESIGN* (MIT Press, 2006).

¹⁶ PAUL MAHARG, *TRANSFORMING LEGAL EDUCATION: LEARNING AND TEACHING THE LAW IN THE EARLY TWENTY-FIRST CENTURY* (Ashgate Publishing Ltd, 2007).

¹⁷ *id.* at 2.

¹⁸ *id.*

¹⁹ Stephanie Davidson, *Way beyond legal research: Understanding the research habits of legal scholars*, 102 *LAW LIBRARY JOURNAL* 561, 575 (2010).

²⁰ Stephanie Davidson, *Way beyond legal research: Understanding the research habits of legal scholars*, 102 *LAW LIBRARY JOURNAL* 561, 575 (2010).

²¹ Stephanie Davidson, *Way beyond legal research: Understanding the research habits of legal scholars*, 102 *LAW LIBRARY JOURNAL* 561, 575 (2010), citing J. Douglas Toma, *Understanding why scholars choose to work in alternative inquiry paradigms*, 40 *RESEARCH IN HIGHER EDUCATION* 539, 544–545 (1999).

²² See entry “agency and structure” in ANDREW EDGAR & PETER SEDGWICK, *CULTURAL THEORY: THE KEY CONCEPTS* (Routledge, 1999, 2002).

phenomena. Hollis argues that four viewpoints of social behavior result from the intersection of these two viewpoints: rational choices, subjective meanings, systems, or cultures.²³

Hollis generally equates the more explanatory approaches with being “top down” and the approaches more geared towards general understanding of social and cultural phenomena as being more from the “bottom up.” While traditional research theories and methods focus on individual parts, more recently, theories and research methods have tended towards considering not only the individual point of view, but also towards how individuals interact with systems in a social or cultural context.

An expansive learning approach to legal research instruction is explored in this article because it contains a context that includes both the individual and socio-cultural aspects of human behavior. Human Computer Interaction Researcher Bonnie Nardi 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.”²⁴

Is one particular theory or another the only way to look at things? Absolutely not! Maharg notes that “legal education rarely tolerates theoretical absolutes.”²⁵ However, as the Boulder Statements on Legal Research Education emphasize, a theoretical perspective can help us to take a fresh look at our practices of teaching, and even beyond into how law librarians approach management and service.

Maharg states that “In the past 30 years, fresh views of knowledge have formed—constructivism, situated learning and activity theory, to name a few—which have as much to say about the activities of academics and everyone involved in education as they have about student and professional learning. We owe ourselves, our students, and a discipline a duty to learn about and contribute to the development of those ways of knowing, and where appropriate, to integrate them with more familiar models of learning.”²⁶

This article will provide an introduction to Expansive Learning and its underlying roots in Activity Theory, which will be followed by a discussion of how they inspired the themes of the Expansive Legal Research and their current and potential applications in legal research instruction.

II. EXPANSIVE LEARNING AND ITS ROOTS IN ACTIVITY THEORY

Expansive Learning (also known as Learning by Expanding) is an approach to learning theory originated by Yrjö Engeström, who is the Director of the Center for Research on Activity, Development and Learning at the University of Helsinki, Finland (CRADLE). He is also a Professor Emeritus of Communication at the University of California, San Diego. The website for the Center for Research on Activity, Development, and Learning states that the inspirations for Expansive Learning come from several sources:

The CRADLE takes its theoretical and methodological inspiration from cultural-historical activity theory and from the broader family of sociocultural approaches. Also, theories of knowledge building, collective creativity and design-related learning are fruitful source of inspiration for CRADLE researchers.²⁷

Engeström first introduced Expansive Learning in a 1987 book called *Learning by Expanding*²⁸ (now in its second edition)²⁹ and has described Expansive Learning in a variety of ways over the years. One way he has

²³ Martin Hollis, *Philosophy of Social Science*, THE BLACKWELL COMPANION TO PHILOSOPHY 375, 376 (2007). <http://dx.doi.org/10.1002/9780470996362.ch14>. See also Stephanie Davidson, *Way beyond legal research: Understanding the research habits of legal scholars*, 102 LAW LIBRARY JOURNAL 561(2010).

²⁴ Bonnie Nardi, *Context and Consciousness: Activity Theory and Human-Computer Interaction* (MIT Press, 1996).

²⁵ PAUL MAHARG, TRANSFORMING LEGAL EDUCATION: LEARNING AND TEACHING THE LAW IN THE EARLY TWENTY-FIRST CENTURY 3 (Ashgate Publishing, Ltd. 2007).

²⁶ PAUL MAHARG, TRANSFORMING LEGAL EDUCATION: LEARNING AND TEACHING THE LAW IN THE EARLY TWENTY-FIRST CENTURY 6 (Ashgate Publishing, Ltd. 2007).

²⁷ Center for Research on Activity, Development and Learning website, <http://www.helsinki.fi/cradle/inspirations.htm>.

²⁸ YRJÖ ENGESTRÖM, LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH (Orienta-Konsultit Oy. 1987), <http://lchc.ucsd.edu/MCA/Paper/Engeström/expanding/toc.htm>

²⁹ YRJÖ ENGESTRÖM, LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH (Cambridge University Press 2d ed. 2014).

described it is that “Expansive learning refers to processes in which an activity system, for example a work organization, resolves its pressing internal contradictions by constructing and implementing a qualitatively new way of functioning for itself.”³⁰ The terms “activity system” and “inner contradictions” are concepts found in a psychological theory called Activity Theory, which Expansive Learning builds upon. As Expansive Learning is heavily based upon Activity Theory, a discussion of Expansive Learning necessitates some background in its underlying roots in Activity Theory.

Activity Theory—A Theoretical Foundation of Expansive Learning

In order to fully understand Engeström’s Expansive Learning approach, it is necessary to also provide an introduction to one of the main theoretical foundations of expansive learning—Activity Theory. There is little discussion of Activity Theory in the area of law and Activity Theory has been “called one of the best kept secrets of academia.”³¹

Activity Theory has been utilized in several fields of study including Information Behavior³² and Human Computer Interaction design (HCI).³³ Activity Theory is also known as a “cultural-historical approach” because rather than focus solely on the immediate situation, it also emphasizes the importance of the culture and historical development of the individual, the tools they use, and their social environment. Activity Theory was chosen to interpret the data in a study of the information behavior of a farmworker legal aid clinic because Activity Theory has the potential to provide an analytical structure and a context, which allows one to see legal research as a social practice as much as an individual undertaking. It recognizes the role of unwritten rules, tacit information, and informal sources of knowledge. It also provides insight into the design nature of legal research, and the role of the legal researcher as an active producer of legal information objects, which themselves become the research objectives of future legal researchers.

Looking at legal information behavior from the perspective of Activity Theory can provide a broader view of the social, cultural, and historical aspects of the legal information environment and our participation in it. Information science researchers have recognized that Activity Theory has the potential to offer a new perspective on how people search for and use information.³⁴

What is Activity Theory?

As noted above, there has been discussion about Activity Theory in information science research. But what is Activity Theory? Activity Theory has been defined 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.”³⁵ Activity Theory gained recognition in the field of Human-Computer Interaction (HCI) because of its incorporation of social interaction in the study of artifact use. In terms of legal research, Activity

³⁰ Yrjö Engeström, *Enriching the theory of expansive learning: Lessons from journeys toward coconfiguration*, 14 MIND, CULTURE, AND ACTIVITY 23, 24 (2007). <http://www.helsinki.fi/cradle/documents/Engeström%20Publ/Enriching%20expansive%20learning.pdf>.

³¹ Wolff-Michael Roth & Yew-Jin Lee, “Vygotsky’s Neglected Legacy”: *Cultural-Historical Activity Theory*, 77 REVIEW OF EDUCATIONAL RESEARCH 186, 218 (2007). <http://rer.sagepub.com/content/77/2/186.abstract>.

³² See Yolanda Patrice Jones, “Just the facts Ma’am?” *a contextual approach to the legal information use environment* (2008), <https://idea.library.drexel.edu/islandora/object/idea%3A2837>, Mark A. Spasser, *Informing information science: The case for activity theory*, 50 JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE 1136 (1999), and T. D. Wilson, *Activity theory and information seeking*, 42 ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY 119 (2008).

³³ See SUSANNE BØDKER, *THROUGH THE INTERFACE : A HUMAN ACTIVITY APPROACH TO USER INTERFACE DESIGN* (L. Erlbaum, 1991); Bonnie Nardi, *Context and Consciousness: Activity Theory and Human-Computer Interaction* (MIT Press, 1996); and Victor Kaptelinin & Bonnie Nardi, *Acting with Technology: Activity Theory and Interaction Design* (MIT Press, 2006).

³⁴ T. D. Wilson, *Activity theory and information seeking*, 42 ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY 119 (2008).

³⁵ Kari Kuutti, *Activity theory as a potential framework for human-computer interaction research*, CONTEXT AND CONSCIOUSNESS: ACTIVITY THEORY AND HUMAN-COMPUTER INTERACTION (1996).

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 the use of mediating tools such as print books, electronic databases, and the search terms used to search them.³⁶

The roots of Activity Theory lie in works of Marx and Hegel, and in the tradition of Soviet cultural-historical psychological research,³⁷ which focused on the development of “higher psychological processes,” such as memory and learning. The work of Lev Vygotsky (1896–1934) on the socially mediated nature of human consciousness and learning is a major concept in psychological literature. Interestingly while Vygotsky is primarily known for his psychological and learning theories, at one point he studied law.³⁸ Vygotsky is best known for a concept known as the Zone of Proximal Development,³⁹ which views learning as a social process where novices are brought to a higher level of knowledge by more capable or knowledgeable members of the community.

Information behavior researcher T.D. Wilson notes that at the heart of the concept of the Zone of Proximal Development is “the difference between what individuals may achieve in an existing state of everyday life and what can be achieved as a result of collective action. This original and wider intention of Vygotsky’s work clearly has potential in many areas of life, including, for example, decision making in organizations. It is well known that collective problem solving can generate many more answers to a problem than any one individual alone is capable of achieving...”⁴⁰ Vygotsky’s work on the Zone of Proximal Development influenced information behavior researcher (and legal information behavior researcher) Carol Kuhlthau,⁴¹ who developed the concept of the “zone of intervention” for librarians, systems designers, and other intermediaries. Kuhlthau’s work has in turn been applied by Vicki Lawal et al. in the area of legal information literacy.⁴²

What is now known in the West as Activity Theory (but is known in its native Russia as the “activity approach”)⁴³ had multiple phases (or generations) of development in the twentieth century.⁴⁴ Vygotsky’s research focused on motivations of human behavior, learning, and language development. Vygotsky developed the original Activity Theory triangle which focused on how an individual will turn to artifacts—physical tools or psychological tools, such as language to solve a problem or reach an objective. See figure below.⁴⁵

³⁶ See Yolanda Patrice Jones, “*Just the facts Ma’am?*” a contextual approach to the legal information use environment (2008), <https://idea.library.drexel.edu/islandora/object/idea%3A2837>.

³⁷ See A.N. LEONT’EV, *ACTIVITY, CONSCIOUSNESS, AND PERSONALITY* (Prentice-Hall, 1978). A.R. LURIA, *COGNITIVE DEVELOPMENT, ITS CULTURAL AND SOCIAL FOUNDATIONS* (Harvard University Press, 1976). LEV S. VYGOTSKY & MICHAEL COLE, *MIND IN SOCIETY: THE DEVELOPMENT OF HIGHER PSYCHOLOGICAL PROCESSES* (Harvard University Press, 1978). There are multiple perspectives of Activity Theory. See also Yvonne Rogers, *57 Varieties of Activity Theory*, 20 *INTERACTING WITH COMPUTERS* 247 (2008).

³⁸ See LEV S. VYGOTSKY & MICHAEL COLE, *MIND IN SOCIETY: THE DEVELOPMENT OF HIGHER PSYCHOLOGICAL PROCESSES* (Harvard University Press, 1978).

³⁹ See Lynne (E. F.) McKechnie, *Vygotsky’s Zone of Proximal Development*, in *THEORIES OF INFORMATION BEHAVIOR* (Information Today, Inc. 2005).

⁴⁰ T. D. Wilson, *Activity theory and information seeking*, 42 *ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY* 119, 129 (2008). <http://dx.doi.org/10.1002/aris.2008.1440420111>.

⁴¹ Carol Kuhlthau is best known for an information behavior theory she developed, which is known as the search process model. See Carol Kuhlthau, *Seeking Meaning: A process Approach to Library and Information Services* (Libraries Unlimited, 2004). See also Carol Kuhlthau, *Information Search Process*, https://comminfo.rutgers.edu/~kuhlthau/information_search_process.htm. Kuhlthau’s concept of the zone of intervention is modeled on Vygotsky’s notion of a zone of proximal development. Kuhlthau herself wrote two papers on legal information behavior. See Carol Kuhlthau & Charles Cole, *Information and information seeking of novice users versus expert lawyers: how experts add value*, *NEW REVIEW OF INFORMATION BEHAVIOUR RESEARCH* (2000) and Carol Kuhlthau & S. L Tama, *Information search process of lawyers: A call for ‘just for me’ information services*, 57 *JOURNAL OF DOCUMENTATION* 25 (2001).

⁴² See Vicki Lawal et al., *Information literacy-related practices in the legal workplace: The applicability of Kuhlthau’s model to the legal profession*, *JOURNAL OF LIBRARIANSHIP AND INFORMATION SCIENCE* (2014).

⁴³ T. D. Wilson, *Activity theory and information seeking*, 42 *ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY* 119, 141 (2008). <http://dx.doi.org/10.1002/aris.2008.1440420111>.

⁴⁴ See Yrjö Engeström, *Expansive Learning at Work: Toward an activity theoretical reconceptualization*, 14 *JOURNAL OF EDUCATION AND WORK* 133(2001).

⁴⁵ See Yolanda Patrice Jones, “*Just the facts Ma’am?*” a contextual approach to the legal information use environment (2008) <https://idea.library.drexel.edu/islandora/object/idea%3A2837>, citing Vygotsky’s Mediating Triangle, from Micheal

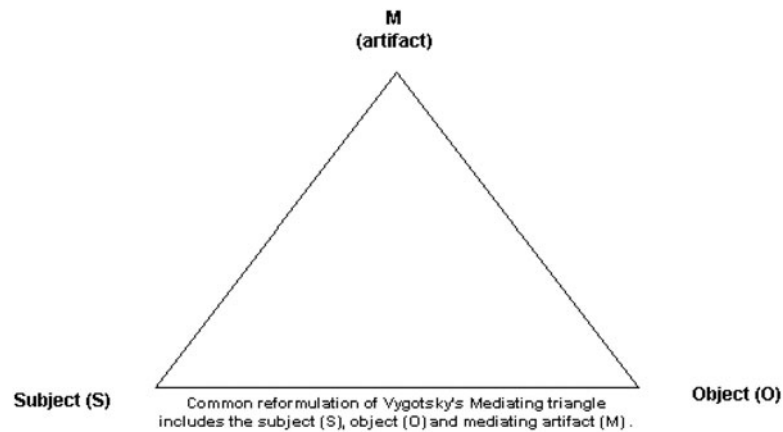


Figure 1. Vygotsky's Mediating Triangle cited in my dissertation.

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 (subject) would either try to use a physical tool, such as a stick (artifact) to reach some cookies (object), 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 the objective. Vygotsky's work was later expanded upon by researchers such as Yrjö Engeström⁴⁶ who expanded the Activity Theory triangle to include concepts such as social rules and norms, community, and division of labor. See figure below.⁴⁷

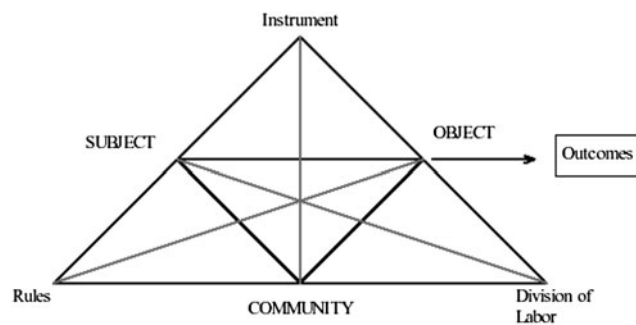


Figure 2. Engeström's expanded Activity Theory triangle (1987).

The outcome of a given activity could then become a mediating tool or artifact of another activity system. Much like a set of building blocks, the legal research process can be seen as an interlocking set of activity systems. See figure below:⁴⁸

Cole & Yrjö Engeström, *A cultural-historical approach to distributed cognition*, in *DISTRIBUTED COGNITIONS: PSYCHOLOGICAL AND EDUCATIONAL CONSIDERATIONS* 5 (1993).

⁴⁶ See YRJÖ ENGESTRÖM, *LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH* (Cambridge University Press 2d ed. 2014).

⁴⁷ See Yolanda Patrice Jones, "Just the facts Ma'am?" *a contextual approach to the legal information use environment*, (2008). <https://idea.library.drexel.edu/islandora/object/idea%3A2837>, citing YRJÖ ENGESTRÖM, *LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH* (Orienta-Konsultit Oy. 1987). Also see Michael Cole & Yrjö Engeström, *A cultural-historical approach to distributed cognition*, in *DISTRIBUTED COGNITIONS: PSYCHOLOGICAL AND EDUCATIONAL CONSIDERATIONS* 8 (1993).

⁴⁸ From *Cultural-Historical Activity Theory (CHAT) and Developmental Work Research (DWR)*, <http://www.helsinki.fi/cradle/chat.htm>. This study of student legal researchers discussed in this article follows the line of Activity Theory research developed by Finnish researcher Yrjö Engeström (1987).

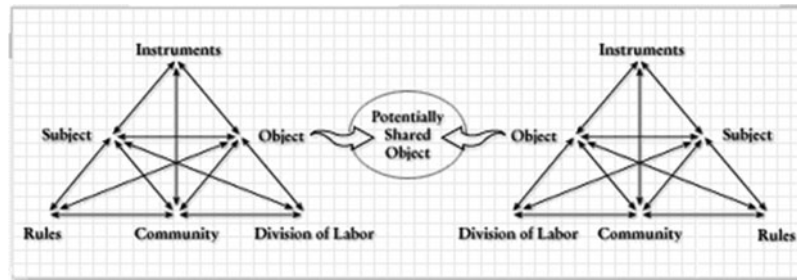


Figure 3. Two interacting activity systems.

Each activity system can itself be comprised of numerous smaller sub-systems.

Note that in many representations, the lines in the expanded Activity Theory Matrix end with arrows at each end. See figure below.⁴⁹

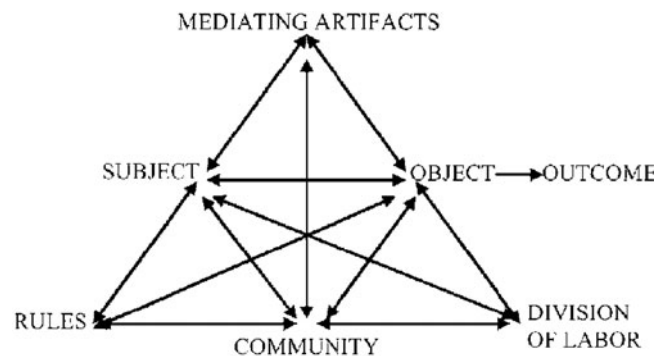


Figure 4. Dynamic activity system.

The arrows represent the dynamic nature of the activity system. The activity system is in a constant state of growth and change. There are “tensions and inner contradictions”⁵⁰ within the activity system as each component of the system pushes and pulls against the other, acting as a type of system of checks and balances. As a barrier is encountered in one portion of the activity system the subject can quickly change to an alternative path. Difficulty in using a physical tool can quickly lead to using social means to achieve the objective, or delegating the task to another. Finally, the outcome of one activity system can become an artifact used by another subject in a different activity system.⁵¹ 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 social collaboration. These tensions and contradictions trigger opportunities for reflection⁵² and hopefully, opportunities for the overall improvement of the system. Perhaps the most significant features of the expanded Activity Theory triangle are the arrows that represent the dynamic forces of push and pull, tension and contradiction. It is the tensions and contradictions within the Activity system that are the major drivers of change.

⁴⁹ See Yolanda Patrice Jones, “*Just the facts Ma’am?*” a contextual approach to the legal information use environment, (2008). <https://idea.library.drexel.edu/islandora/object/idea%3A2837>, citing Patricia Collins et al., *Activity theory and system design: A view from the trenches*, 11 *COMPUTER SUPPORTED COOPERATIVE WORK (CSCW)* 55, 58 (2002).

⁵⁰ See T.D. Wilson, *A re-examination of information seeking behaviour in the context of activity theory*, 11 *INFORMATION RESEARCH* (2006), <http://www.informationr.net/ir/11-4/paper260.html>.

⁵¹ Like Lego blocks? A similar “building block” concept of human consciousness can be found in MARVIN MINSKY, *SOCIETY OF MIND* (Simon and Schuster, 1988) at p. 21.

⁵² See Donald A. Schön, *THE REFLECTIVE PRACTITIONER: HOW PROFESSIONALS THINK IN ACTION* (Basic Books, 1983).

It is Engeström's expanded Activity Triangle from Learning by Expanding that is used by many Activity Theory and Expansive learning researchers today. Engeström also expanded the concept of Activity Theory to take into account expanding networks of interacting Activity systems that are formed as various individuals and groups interact and as the products of existing Activity systems become the mediating tools or artifacts of new activity systems. Engeström's expanded Activity Triangle, or as it is referred to in the article Vygotsky's Neglected Legacy, "Third-generation activity theory endorses that that that all activity systems are part of a network of activity systems that in its totality constitutes human society."⁵³

In my study of students at a farmworker legal aid clinic, I used Engeström's expanded Activity Triangle to analyze the information behavior of law student research teams. This study used Activity Theory as an information behavior model for student researchers in a farmworker legal aid clinic. The people, their work, the systems they use and their environment were viewed both historically and in terms of the immediate situation. Multiple methods were employed to gather data, including ethnographic observation of student researchers. Activity Theory was employed as a discovery tool to provide a holistic, empirical examination of the law clinic information use environment. See image below:⁵⁴

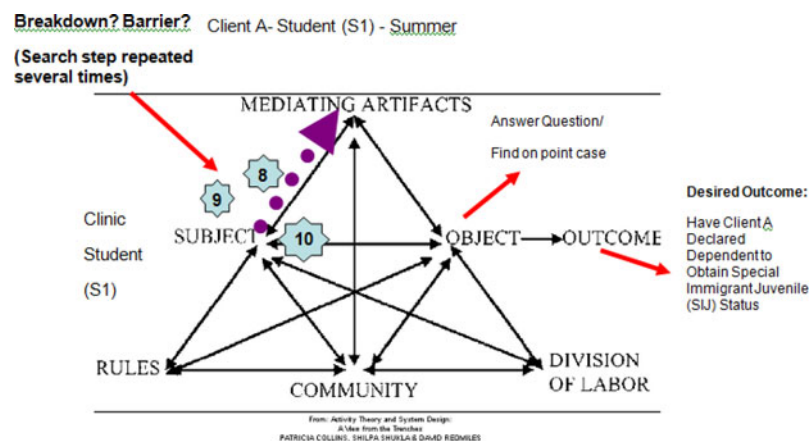


Figure 5. Sample Analysis: Multiple searches before finding possible on point case.

Student teams were observed in the law clinic as they constructed legal theories and located legal materials.⁵⁵ Data collection involved naturalistic observations, "think-alouds"⁵⁶ where students talked aloud about their thoughts as they searched Lexis and Westlaw, post-observation interviews and examination of client file documents. Law student researchers were videotaped as they interacted with legal information systems (Lexis and Westlaw). A sense of the overall context of use of those systems was gained through observation of clinic meetings combined with examination of documents in case files such as email communications, letters, and informal planning documents. Students were observed in the natural setting in which they worked. The observations took place periodically over several semesters between 2004 and 2005. While this is some time ago, there is still value in reporting this dissertation research as this was at the dawn of the social media era, when services such as Facebook were still in their formative stages and were not pervasively used as is the case today.

⁵³ Wolff-Michael Roth & Yew-Jin Lee, "Vygotsky's Neglected Legacy": *Cultural-Historical Activity Theory*, 77 *REVIEW OF EDUCATIONAL RESEARCH* 186, 200 (2007). <http://rer.sagepub.com/content/77/2/186.abstract>.

⁵⁴ Yolanda Patrice Jones, "Just the facts Ma'am?" *a contextual approach to the legal information use environment*, 118 (2008). <https://idea.library.drexel.edu/islandora/object/idea%3A2837>.

⁵⁵ The participant group consisted of law faculty and research assistants from a law school farmworker Legal Aid Clinic. 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. Internal Review Board (IRB) human subject approval was given for this project.

⁵⁶ See Jones, *supra* note 5, at 105 for more details on the think aloud procedure. Although not the primary focus of this article, interesting results were found when due to scheduling issues a student pair searched a legal database as a team (see page 141).

Analysis involved situating the activities of the clinic historically, mapping the activities observed in the clinic using the Activity Theory matrix, looking for “breakdown situations” where researchers encountered barriers to information access, and considering other information behavior theories and models which might “fit” the activities observed within the clinic. Observations showed that students were not doing research in the way that was taught in the first year legal research class.

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). 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. In this study, an Activity Theory analysis revealed legal research behaviors, which were highly complex, where students worked in teams as they often might in real life. At least one situation was a novel situation where there may in fact have been “no law,” and the resolution to the legal research problem was more tacit in nature.

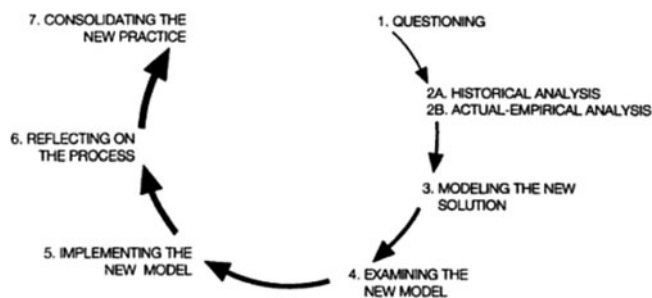
The Themes of Expansive Learning

With this brief introduction to Activity Theory, Engeström’s statement now has some meaning that “Expansive learning refers to processes in which an activity system, for example a work organization, resolves its pressing internal contradictions by constructing and implementing a qualitatively new way of functioning for itself.”⁵⁷ Another article on Expansive Learning states that “As activity systems are increasingly interconnected and interdependent, many recent studies of expansive learning take as their unit of analysis a constellation of two or more activity systems that have a partially shared object. Such interconnected activity systems may form a producer–client relationship, a partnership, a network, or some other pattern of multi-activity collaboration.”⁵⁸

Engeström states in *Learning by Expanding* that his approach was put forth to counter the systems view of human cognition that was rising to dominance in the 1980s. He states that:

“It was written in order to formulate a strong alternative to the dominant Cartesian views of cognition and learning that depicted the human mind as if it were a computer, isolated from the cultural context.”⁵⁹

While Engeström viewed the activity system as a triangle, he viewed Expansive Learning as the process or cycle by which change and transformation took place within an activity system. See image of Engeström’s Expansive Learning Cycle below.⁶⁰



⁵⁷ Yrjö Engeström, *Enriching the theory of Expansive Learning: Lessons from journeys toward coconfiguration*, 14 MIND, CULTURE, AND ACTIVITY 23, 24 (2007). <http://www.helsinki.fi/cradle/documents/Engeström%20Publ/Enriching%20expansive%20learning.pdf>.

⁵⁸ Yrjö Engeström & Annalisa Sannino, *Studies of Expansive Learning: Foundations, findings and future challenges*, 5 EDUCATIONAL RESEARCH REVIEW 1, 6(2010). <http://www.helsinki.fi/cradle/documents/Engeström%20Publ/Studies%20on%20expansive%20learning.pdf>.

⁵⁹ Quote Page xiii *Learning By Expanding*.

⁶⁰ Yrjö Engeström, *Innovative learning in work teams: Analyzing cycles of knowledge creation in practice*, in PERSPECTIVES ON ACTIVITY THEORY 377,384 (1999).

The Expansive Learning process is composed of seven steps, which make up the cycles of expansive learning. The learner starts in what is called the “need state,” where they have a question or need. Engeström states that, “The first action is that of questioning, criticizing or rejecting some aspects of the accepted practice and existing wisdom. For the sake of simplicity, we will call this action questioning... The second action is that of analyzing the situation. Analysis involves mental, discursive, or practical transformation of the situation in order to find out causes or explanatory mechanisms. Analysis evokes ‘why?’ questions and explanatory principles. One type of analysis is historical-genetic; it seeks to explain the situation by tracing its origins and evolution. Another type of analysis is actual-empirical; it seeks to explain the situation by constructing a picture of its inner systemic relations.”⁶¹ A solution is then designed or modeled that explains the solution to the problematic situation. The “model” is then examined and implemented. Engeström states that “The fifth action is that of implementing the model by means of practical applications, enrichment, and conceptual extensions.” Reflection after implementation would provide feedback which would help to incorporate the new solution into practice.

Engeström describes the expansive learning cycle as a problem solving process, stating that “The theory of expansive learning is based on the dialectics of ascending from the abstract to the concrete. This is a method of grasping the essence of an object by tracing and reproducing theoretically the logic of its development, of its historical formation through the emergence and resolution of its inner contradictions.”⁶² The Expansive Learning cycle should not be seen as a set of rote processes. Engeström states that “The expansive cycle begins with individual subjects questioning the accepted practice, and it gradually expands into a collective movement or institution. Ascending from the abstract to the concrete is achieved through specific epistemic or learning actions. Together these actions form a cycle or a spiral that may be called learning activity or Expansive Learning. The process of Expansive Learning should be understood as construction and resolution of successively evolving contradictions in the activity system.”⁶³

Engeström’s research institute has explored applications of this Expansive Learning cycle in both educational and work environments. However, Expansive Learning is more than the specific process steps of the Expansive Learning cycle. Engeström states that “The central ideas of this book may be condensed into the following five claims: (1) The object-oriented and artifact-mediated collective activity system is the prime unit of analysis in cultural-historical studies of human conduct; (2) historically evolving inner contradictions are the chief sources of movement, change, and development in activity systems; (3) Expansive Learning is a historically new type of learning, which emerges as practitioners struggle through developmental transformations in their activity systems, moving across collective zones of proximal development; (4) the dialectical method of ascending from the abstract to the concrete is the key for mastering cycles of Expansive Learning; and (5) an interventionist research methodology that aims at pushing forward, mediating, recording, and analyzing cycles of Expansive Learning in activity systems is needed.”⁶⁴

Expansive Learning (as well as Activity Theory on which it is in part based) is hard to categorize because it encompasses both individual and social aspects of human behavior. It focuses on both parts and wholes. In addition, just what does it mean to be expansive? Before looking at the themes of Expansive Learning it is worthy of note that the *Oxford English Dictionary (OED)* has several meanings for the word expand. One meaning is “to spread out; to spread out flat or smooth; to open out, unfold; to remove the bolts or wrinkles from, to smooth (the forehead); also, to spread out to view, display.” Another meaning is “to develop what is implicit in (a statement); to write out in full what is expressed by a (graphical contraction).” A third meaning is “to give ample utterance to, ‘pour out’ (one’s feelings); to manifest unrestrainedly one’s feelings; to overflow.” Further, the word *expansive* is defined by the OED as:

⁶¹ Yrjö Engeström & Annalisa Sannino, *Studies of Expansive Learning: Foundations, findings and future challenges*, 5 EDUCATIONAL RESEARCH REVIEW 1, 7 (2010). <http://www.helsinki.fi/cradle/documents/Engeström%20Publ/Studies%20on%20expansive%20learning.pdf>.

⁶² See YRJÖ ENGESTRÖM, *LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH* (Cambridge University Press 2d ed. 2014).

⁶³ See YRJÖ ENGESTRÖM, *LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH* (Cambridge University Press 2d ed. 2014).

⁶⁴ See YRJÖ ENGESTRÖM, *LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH* (Cambridge University Press 2d ed. 2014).

“Tending or adapted to expand in volume, to spread over a larger surface, or fill a larger space; having the capacity to expand or develop to larger dimensions; dilatable. Said both of material and immaterial objects.”

Still another definition of expansive is “Of a force, a movement or tendency: Acting in the direction of expansion; directed towards expansion: a. within the object or substance itself. b. in some other object.” Most interestingly one of the definitions focuses on the process of expansion which hints at the role of design.⁶⁵

3. “Of or pertaining to expansion. Of an engine, process, etc.: Involving or depending upon the principle of expansion.”

4. a. Of material things: Expanding over or occupying a large surface or space; having wide bounds, broad, extensive. b. Of immaterial things (e.g. thoughts, designs, sympathies): Having a wide range; comprehensive.”

All of these definitions play into the meaning and themes of Expansive Learning as they are set forth by Engeström. Much of his focus lies in the concept of change and of transformation on both the individual and cultural levels, and how these changes are often born of tensions and contradictions that arise from the nature of human interaction with their tools and other objects. Engeström states that:

“The theory of expansive learning puts the primacy on communities as learners, on transformation and creation of culture, in horizontal movement and hybridization, and on the formation of theoretical concepts.”⁶⁶

There are many themes in Expansive Learning. The Expansive Learning perspective includes elements such as a focus on an activity-centered context of both the individual and social aspects of human behavior; the design-oriented nature of human problem-solving; and a cultural historical approach to learning and development, where both the user and their tools are undergoing a constant process of growth and change and transformation.

As an adult learning theorist, many of Engeström’s applications of learning theory were in a work context. Engeström describes his expansive conceptualization of learning as follows:

- (1) It is transformative learning that radically broadens the shared objects of work by means of explicitly objectified and articulated novel tools, models, and concepts... This transformative aspect of learning in co-configuration puts a heavy emphasis on actions of design, modeling, textualization, objectification, conceptualization and visibilization.... We might say that this is the visible superstructure of new forms of expansive learning at work.
- (2) It is horizontal and dialogical learning that creates knowledge and transforms the activity by crossing boundaries and tying knots between activity systems operating in divided multi-organizational terrains. This horizontal aspect of learning in co-configuration puts a heavy emphasis on actions of bridging, boundary crossing, “knotworking”, negotiation, exchange, and trading. This is the structure of situationally constructed social spaces, arenas and encounters needed in new forms of expansive learning at work.
- (3) It is subterranean learning that blazes embodied and lived but unnoticeable cognitive trails that serve as anchors and stabilizing networks that secure the viability and sustainability of the new concepts, models and tools, thus making the divided multi-organizational terrains knowable and livable.... This subterranean aspect of learning in co-configuration puts a heavy emphasis on actions of spatial transition and

⁶⁵ One of the definitions of the word design in the OED is: “(a) To make drawings for the construction or creation of (something, as a building, object, garment, etc.) according to certain aesthetic criteria; (b) to make plans for the production of (a device, product, etc.) according to structural or functional criteria (sometimes without the implication of aesthetic requirements); (c) (in extended use) to conceive, devise, plan (something immaterial, as a scheme, system, programme, etc.)”

⁶⁶ Yrjö Engeström & Annalisa Sannino, *Studies of Expansive Learning: Foundations, findings and future challenges*, 5 EDUCATIONAL RESEARCH REVIEW 1, 2 (2010). <http://www.helsinki.fi/cradle/documents/Engestrom%20Publ/Studies%20on%20expansive%20learning.pdf>.

movement, repetition, stabilization and destabilization, and embodiment. This is the invisible, rhizomatic⁶⁷ infrastructure of new forms of expansive learning at work.⁶⁸

His conception of learning has an almost underground quality. This may come in part from the history of the development of Activity Theory upon which he builds his Expansive Learning research. It is stated in the treatise *Learning and Expanding with Activity Theory* that “activity theory has the peculiar and distinctive characteristics of developing as an integral part of the historical turmoil through which activity theorists have lived”⁶⁹ and notes “two phases of turmoil in the development of activity theory: first, the Russian Revolution, which triggered the engagement of the founders, and second, the student movement through which activity theory was rediscovered and further developed in Europe.”⁷⁰ Rather than rote learning and applying accepted principles, students collaborate to design something new, and in that process learn both the existing principles and how to apply them in new contexts. In an article on Expansive Learning, Engeström states that “In expansive learning, learners learn something that is not yet there. In other words, the learners construct a new object and concept for their collective activity, and implement this new object and concept in practice.”⁷¹

To Engeström, design plays an important role in Expansive Learning, particularly in the work setting: “The basic argument for such a focus on work settings is that traditional modes of learning deal with tasks in which the contents to be learned are well known ahead of time by those who design, manage and implement various programs of learning. When whole collective activity systems, such as work processes and organizations, need to redefine themselves, traditional modes of learning are not enough. Nobody knows exactly what needs to be learned. The design of the new activity and the acquisition of the knowledge and skills it requires are increasingly intertwined. In expansive learning activity, they merge.”⁷²

Rather than accepting authority, “The expansive cycle begins with the individual subjects questioning the accepted practice, and it gradually expands into a collective movement or institutions. Ascending from the abstract to the concrete is achieved through specific epistemic or learning actions. Together these actions form a cycle or spiral that may be called learning activity or expansive learning. The process of expansive learning should be understood as constructing and resolution of successively evolving contradictions in the activity system. The new concepts and practices generated by expansive learning activity are future-oriented visions loaded with initiative and commitment from below. They cannot be predefined and safely constrained by researchers or authorities.”⁷³ It is these qualities that appealed in looking for theoretical applications for the teaching of legal research, particularly as he states that “In an expansive learning cycle, the initial simple idea is transformed into a complex object, into a new form of practice. Such a theoretically grasped practice is concrete in systemic richness and multiplicity of manifestations.”⁷⁴

Change Laboratories and Intervention

Expansive Learning is a perspective towards learning and problem solving which accepts that constant change and transformation is a normal part of development of both humans and the tools they use, and that people should always be ready to engage in intervention to resolve problems in the learning process. Engeström’s research institute implements interventions in learning or in the workplace using a method he calls change laboratories, where work processes are analyzed for potential changes and improvements. Researchers

⁶⁷ The term has been defined by the OED as “Resembling an interconnected, subterranean network of roots. Hence: non-hierarchical, interconnected.”

⁶⁸ Yrjö Engeström, *New forms of learning in co-configuration work*, 16 JOURNAL OF WORKPLACE LEARNING 11 (2004). <http://www.emeraldinsight.com/doi/abs/10.1108/13665620410521477>. Pp. 16–17.

⁶⁹ ANNALISA SANNINO, et al., *LEARNING AND EXPANDING WITH ACTIVITY THEORY* xiv (Cambridge University Press, 2009).

⁷⁰ Id.

⁷¹ Supra note 64 at 2.

⁷² Yrjö Engeström & Annalisa Sannino, *Studies of Expansive Learning: Foundations, findings and future challenges*, 5 EDUCATIONAL RESEARCH REVIEW 1, 3 (2010). <http://www.helsinki.fi/cradle/documents/Engeström%20Publ/Studies%20on%20expansive%20learning.pdf>. P.3.

⁷³ YRJÖ ENGESTRÖM, *LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH* xx (Cambridge University Press 2d ed. 2014).

⁷⁴ Id.

who use a learning by expanding or expansive research approach include intervention, often using change laboratories, as one of their techniques. A book on Change Laboratory methodology states that “The Change Laboratory is a formative intervention method for developing work activities by the practitioners in collaboration with researcher-interventionists. It is also a tool kit for envisioning, designing, and experimenting with new forms of work and a social setting in which this can be done. A Change Laboratory intervention is typically conducted in a pilot unit of an activity that is in need of a major transformation.”⁷⁵ The concept of change laboratory is used by Expansive Learning researchers, especially in Scandinavia in places such as Helsinki, as change agents and opportunities to intervene in problematic situations in the workplace. Engeström characterizes, “A Change Laboratory intervention often takes place as a series of six to twelve weekly meetings of a pilot unit of an organization, plus one or two follow-up meetings several months later. This kind of an intervention attempts to accelerate and intensify the expansive learning process by introducing successive tasks that require specific expansive learning actions.”⁷⁶ The Helsinki change laboratories have done workplace interventions in a number of subject areas.

Is the concept of change laboratory in the context of Learning by Expanding similar to how Christopher Columbus Langdell likened the law library to a laboratory? Paul Maharg in *Transforming Legal Education* quotes Langdell when he states that “we have... Constantly inculcated the idea that the library is the proper workshop of professors and students alike; that it is to us all that the laboratories of the University is to the chemist and physicist, all that the Museum of natural history is to that zoologists, all that the botanical garden is to the botanist. (Langdell, 1887, pp.123–124)”⁷⁷ Others have seen the law library as a technology laboratory.⁷⁸ All of these meanings are in some ways emblematic of the modern law library, but from an Expansive Learning perspective, the law library can also be seen as a change laboratory. Librarians can do what is done in a laboratory. Exploration. Transformation. Innovation. Intervention. In an Expansive Legal Research perspective, empirical research in the legal research subject domain becomes more important. Rather than what is traditionally seen as impractical theories, theory driven research in legal information behavior can be used as the basis of change laboratories in which both students, librarians, and practitioners can provide information that can help legal researchers adapt to rapidly changing technological developments in law and legal research.

It is common in legal research to see descriptions or depictions of students who were taught the basics of legal research in the first year of law school but who do not seem to have retained this information upon reaching their upper-level courses. This phenomenon continues post-graduation and there are frequent discussions about the phenomenon of why ‘Johnny can’t research.’⁷⁹ There are several reports which note that what law firms are looking for in terms of legal research ability and competency are not present when the graduate presents at the law firm. From an Expansive Legal Research perspective, what may be indicated is that there is a need for more frequent interventions by legal research instructors throughout the first year curriculum into the upper levels and beyond, which has been described as a “research across the curriculum” approach.⁸⁰ Procedures have been developed for interventions and problematic situations in workplaces and educational settings through vehicles called change laboratories. One

⁷⁵ The book, *The Change Laboratory, A Tool for Collaborative Development of Work and Education* states that Analysis tools are provided to “...provide the practitioners with a mirror reflection of their activity by presenting specimens of the current practice and first hand data concerning the activity to be jointly examined...to represent and examine experiences from work practice, particularly problem situations and disturbances, but also novel innovative solutions. Videotaped work episodes as well as stories, interviews, customer feedback, and regular performance statistics are use in the mirror as well as cases that enabled the analysis of ruptures in the coordination and collaboration between actors.” JAAKKO VIRKKUNEN, THE CHANGE LABORATORY: A TOOL FOR COLLABORATIVE DEVELOPMENT OF WORK AND EDUCATION 15 (Springer Science & Business Media, 2013).

⁷⁶ Yrjö Engeström & Annalisa Sannino, *Studies of Expansive Learning: Foundations, findings and future challenges*, 5 EDUCATIONAL RESEARCH REVIEW 1, 12 (2010).

⁷⁷ Quote *Transforming Legal Education* p. 26.

⁷⁸ Find cite to April 2015 SEAALL program and other articles.

⁷⁹ See, for example, Thomas A Woxland, *Why Can't Johnny Research-or It All Started with Christopher Columbus Langdell*, 81 LAW LIBR. J. 451(1989).

⁸⁰ See Brooke J Bowman, *Researching Across the Curriculum: The Road Must Continue Beyond the First Year*, 61 OKLA. L. REV. 503(2008). <http://adams.law.ou.edu/olr/articles/vol61/302bowmanarticleblu4.pdf>.

way it has been described is “The change laboratory is an intervention best research methodology where people work together in a structured and cyclical way to envisage new activity in the organization.”⁸¹

The characteristics of Expansive Learning described above, questioning, reaching for an objective that is not well defined, and where an answer may not already exist, is well-suited to the legal analysis, research, and writing process. I did not characterize my dissertation research at the farmworker Legal Aid Clinic discussed in the prior section in terms of Expansive Learning, or as a Change Laboratory, but upon reflection it was very much in the spirit of a change laboratory analysis, as the study questioned the activity by analyzing problematic situations, or breakdowns, analyzed the systemic and historical causes of the problems identified, and revealing and discussed the tensions within the activity system. As a result of the research the instructor for the farmworker legal aid clinic made changes in the course curriculum that would help to ensure that students were considering core legal research sources and making proper use of the research files as part of the clinical process.

The most obvious use of Expansive Learning (or perhaps learning and expanding with Activity Theory, as one book put it),⁸² in a law library setting would be through empirical research. There has been recent research using Expansive Learning as a mechanism to analyze and improve library services.⁸³ My own ethnographic research focused on the use of the Activity Theory triangle to analyze legal information behavior of law students in a farmworker Legal Aid clinic in order to gain insights, which could help to improve legal research instruction and services. Although that original exploration into applications of Activity Theory took place several years ago, the research experience deeply affected my perspective on the teaching of legal research. I will explore these themes in the next section, which I think of as an approach called Expansive Legal Research.

III. THEMES OF EXPANSIVE LEGAL RESEARCH—USES OF EXPANSIVE LEARNING IN LEGAL RESEARCH INSTRUCTION

Whether it was teaching 1L Legal Research, Advanced Legal Research, paralegals, or even in training sessions, I often presented materials and explored themes that were influenced by Activity Theory and Engeström’s work in *Learning by Expanding*. The traditional view of legal research is not really couched in terms of expansion. If anything to additional legal research is seen as the opposite. There is an expected set of research sources that are considered to be authoritative or acceptable for use in legal research. It is a closed system, which is used by an individual researcher. The themes of Activity Theory and Expansive Learning could provide a perspective that expands beyond that traditional viewpoint. This could be particularly useful from the perspective of lesson planning.⁸⁴

Expansive Learning and Activity Theory may be a useful tools for metacognition⁸⁵ and self-reflection in constructing and planning legal research curriculum. Engeström, in *Learning by Expanding* states that, “Therefore, we need to look at instruction and learning—the plans and actions of instructors as well as the actions of learners—as dialectically intertwined. This means that the prescribed and planned process the instructor is trying to implement must be compared and contrasted with the actual process performed by the learners. The two will never fully coincide. The gap, struggle, negotiation, and occasional merger between the two need to be taken as key resources for understanding the processes of learning as processes of formation of agency.”⁸⁶

Reflections on the use of Expansive Learning in legal research instruction can be grouped into the following themes: a focus on an activity-centered context of both the individual and social aspects of human behavior; the design-oriented nature of human problem-solving; the role of tacit knowledge and unwritten rules in daily activity

⁸¹ Jeroen Huisman & Malcome Tight, *Theory and Method in Higher Education Research* § 1, 141 (Emerald Group Publishing, 2015).

⁸² See ANNALISA SANNINO et al., *LEARNING AND EXPANDING WITH ACTIVITY THEORY* (Cambridge University Press, 2009).

⁸³ See Yrjö Engeström et al., *Expansive Learning in a Library: Actions, Cycles and Deviations from Instructional Intentions*, 6 *VOCATIONS AND LEARNING* 81(2013). <http://dx.doi.org/10.1007/s12186-012-9089-6>.

⁸⁴ See Sibyl Coldham, *CETL for Professional Learning from the Workplace: Using activity theory to facilitate curriculum development*, 1 *HIGHER EDUCATION, SKILLS AND WORK-BASED LEARNING* 262 (2011). <http://www.emeraldinsight.com/doi/abs/10.1108/20423891111179650>.

⁸⁵ See Paul D Callister, *The Metacognitive Imperative*, in *THE BOULDER STATEMENTS ON LEGAL RESEARCH EDUCATION: THE INTERSECTION OF INTELLECTUAL AND PRACTICAL SKILLS* (Susan Nevelow Mart ed. 2014).

⁸⁶ Yrjö Engeström, *LEARNING BY EXPANDING: AN ACTIVITY-THEORETICAL APPROACH TO DEVELOPMENTAL RESEARCH* xix (Cambridge University Press 2d ed. 2014).

and practice and a cultural historical approach to learning and development, where both the researcher and their tools are undergoing a constant process of growth and change and transformation. These areas will be explored in the remainder of this section.

Activity-centered Context of both The Individual and Social Aspects of Human Behavior—Accepting Legal Research as Social Practice

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. Activity Theory, then, can be seen as a model that allows for the consideration and visualization of both individual and social levels of human behavior in its application. As social media and social practice become more important to law practitioners, Activity Theory has potential as a framework, which can help both legal research instructors as well as practitioners recognize the value of all portions of the activity system. The impetus for my dissertation research at the farmworker legal aid clinic was the realization that the clinic students were seldom seen in the library. How *were* they doing their research?

The information use environment of the clinic was found to be very collaborative in nature. Uses of legal information in the clinic were far more informal than initially expected. Much of what I found, taken individually, was not a surprise. Students relied a lot on informal information and collaboration with experts to get quick answers to their questions. They liked the electronic format, even when the professor put a print book (such as Kurzban's Immigration Law Sourcebook) in their hands. They used the law library as a last resort. While law students were taught legal research in a separate half semester 1L course with a hierarchy of authorities of primary and secondary sources, in many instances the students did not do what I would consider to be traditional legal research. Sometimes they did not seem to do research at all!

What was surprising was the sheer scope of the informal contacts used. In the course of 10 different cases that were observed, over 100 informal sources were consulted for various types of advice or information. As might be expected, more outside contacts were consulted or considered for the more complex cases. While they could more accurately be termed as "contacts," the clinic students often referred to them as "experts." Even journal articles found via traditional means were seen more as a resource for contact information if the article had been authored recently. When I discussed this phenomenon with one law professor, she mentioned "collegiality" as the glue that holds the practicing bar together. Lawyers help each other out all the time (in accordance with the rules on client confidentiality and conflicts of interest). Often a colleague may recall a similar situation and provide starting points.

There is support for the social nature of legal research in the literature on legal information behavior. A 2007 study of small firm attorneys by Susan Folwer stated that the number one information resource used was the telephone.⁸⁷ This was followed by technology and research, court and court preparation, case, and relationships. There is an increasing recognition of the importance of social aspects of information behavior in legal research, which is of increased significance as upcoming generations of both lawyers and members of the general public are more reliant on and accepting of social media and other sources of legal information which may be seen as less "authoritative." Print sources of legal information are seen as the products of an increasingly bygone era. What is known in the US as "collegiality" and social networking could be seen as being used to overcome barriers to information which would be as simple as not having the time given their workload to do as much formal research as they would like.

An older study⁸⁸ by Morris Cohen, who would later author the landmark legal research treatise *How to Find the Law*,⁸⁹ 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 that 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

⁸⁷ Susan G. Fowler, Results of participant observation in the Fifth Judicial District: Customizing the county law library to meet the needs of small firm attorneys in rural Kansas. 4th International Evidence Based Library & Information Practice Conference 6–11 May 2007 Chapel Hill-Durham, NC, USA (2007). <http://www.eblip4.unc.edu/papers/Fowler.pdf>.

⁸⁸ See M. L. Cohen, *Research habits of lawyers*, 9 JURIMETRICS 183 (1969).

⁸⁹ M. L. COHEN et al., *HOW TO FIND THE LAW* (1989).

such topical access has been achieved (digest for cases, codes for statutes, etc.), shape the lawyer's research in very fundamental ways".⁹⁰

Cohen notes a tendency to delegate the legal research task and a reliance on informal sources of information, such as other attorneys. Cohen 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."⁹¹ 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."⁹² 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. This social component of research practice noted by Cohen is similar to the results of later studies in legal information behavior such as my own study of a farmworker Legal Aid clinic.⁹³ There is research to indicate that the more complex the information problem is the more likely social methods may be used to try to resolve it.⁹⁴

Judith Lihosit, who applied distributed cognition concepts to her study of practicing attorneys and librarians "in the wild."⁹⁵ Lihosit considered social, historical, and cultural factors as part of her discussion of her study, arguing that computer assisted legal research systems (CALR) posed no threat to how lawyers think about the law and do legal research because there were always informal social networks at play that could be said to be an informal apprenticeship system.

Jill J. Ramsfield, in her legal writing treatise *Law as Architecture*, discusses how law practice in the US operates as a "Legal Discourse Community," with identifying discourse as a form of social behavior. Ramsfield states, "Linguists and composition theorists have observed the phenomenon of interpreting and translating English within specific professional cultures. Some call these cultures "discourse communities."⁹⁶ She states 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. Specifically, discourse communities are sociohistorical networks that form in order to work toward sets of common goals. Those goals might include a socialization that maintains and recreates the subculture's social structure and world view. According to those adopting this perspective on discourse, known as the social view, discourse operates within conventions defined by the communities themselves, such as academic disciplines or social groups."⁹⁷

Ramsfield notes that this social orientation also regulates behavior (and provides insight into why many legal writing programs teach first legal research as part of an integrated legal research and writing course):

"This is an important matter for newcomers to the community because experts use discourse as the means to initiate—or exclude—novices. Your first-year legal writing course initiates you into the community by introducing language, research sources, and analytical patterns. Your professors initiate you by using speech patterns that set up problem-solving sequences. Your supervising attorneys initiate you into the office by showing you approaches that members of that office use for designing and expressing ideas in documents. Your colleagues initiate you by giving you tips on the styles preferred by your supervising attorneys".⁹⁸

⁹⁰ M. L. Cohen, *Research habits of lawyers*, 9 JURIMETRICS 185 (1969).

⁹¹ M. L. Cohen, *Research habits of lawyers*, 9 JURIMETRICS 190 (1969).

⁹² M. L. Cohen, *Research habits of lawyers*, 9 JURIMETRICS 191 (1969).

⁹³ See Yolanda Patrice Jones, "Just the facts Ma'am?" a contextual approach to the legal information use environment, (2008). <https://idea.library.drexel.edu/islandora/object/idea%3A2837>.

⁹⁴ See Katriina Byström, The effects of task complexity on the relationship between information types acquired and information sources used, 1 The New Review of Information Behavior Research 85 (2000).

⁹⁵ Judith Lihosit, *Research in the Wild: CALR and the Role of Informal Apprenticeship in Attorney Training*, 101 LAW LIBR. J. 157(2009). http://aallnet.org/main-menu/Publications/llj/LLJ-Archives/Vol-101/pub_llj_v101n02/2009-10.pdf.

⁹⁶ JILL J. RAMSFIELD, *LAW AS ARCHITECTURE: BUILDING LEGAL DOCUMENTS* 16 (West, 2000).

⁹⁷ Id.

⁹⁸ Id.

While Ramsfield views legal research and writing in terms of discourse communities, another way of reflecting upon communities of subject matter experts is the concept of Communities of Practice.⁹⁹

The concept of “Communities of Practice” is based upon the work of Jean Lave and Etienne Wenger.¹⁰⁰ Information science researchers Noriko Hara and Rob Kling define 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.” Hara and Kling studied the workings of public defender offices in terms of communities of practice.¹⁰¹ They found that more developed IT infrastructure did not correlate with the most developed communities of practice. The community was studied via a combination of interviews, observations, and documents. They found high uses of the social communication resources available at the time, such as listservs by some attorneys, especially 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. They note the importance of both formal and informal learning in the community of practice.

Legal Research by Design—The Design-Oriented Nature of Human Problem-Solving

It has been argued that all professionals are taking part in a type of design process as they solve problems and create artifacts.¹⁰² An activity-centered perspective can also encourage legal research instructors to engage in assignments where the future attorneys can view themselves in a design¹⁰³ role where they are active producers as opposed to passive consumers of information. Activity Theory provides a perspective with which to consider legal research in practice, as opposed to the “legal research task.” In terms of legal authority, the activity system allows us to see that the legal resource that is used as a tool to construct a legal argument is only the tip of an “iceberg” consisting of a complex matrix of tools, individual, and group interactions. It allows us to see legal research as a complex design process, with issues of individual cognition, group cognition, the design and development of the legal research tools themselves, and how the legal researcher uses those tools as they are constructing legal theories and legal documents. In this approach, an activity-centered approach helps us to realize that the library is as much a conceptual space as it is a virtual or a physical space, which provides a wide variety of tools for the activity of legal research. An activity-centered perspective looks both at formal documents and tools as well as informal tacit communication. An activity-centered viewpoint leads to more focus on informal interactions, more use of historical context, and away from blind acceptance of the latest database flavor of the moment. Principles such as the

⁹⁹ See JEAN LAVE & ETIENNE WENGER, *SITUATED LEARNING. LEGITIMATE PERIPHERAL PARTICIPATION* (Cambridge University Press, 1991); ETIENNE WENGER, *COMMUNITIES OF PRACTICE: LEARNING, MEANING, AND IDENTITY* (Cambridge University Press, 1998).

¹⁰⁰ JEAN LAVE & ETIENNE WENGER, *SITUATED LEARNING. LEGITIMATE PERIPHERAL PARTICIPATION* (Cambridge University Press, 1991); ETIENNE WENGER, *COMMUNITIES OF PRACTICE: LEARNING, MEANING, AND IDENTITY* (Cambridge University Press, 1998).

¹⁰¹ See Noriko Hara, *Formal and Informal Learning: Incorporating Communities of Practice into Professional Development* (2001). <https://web.archive.org/web/20100910055045/http://rkcsi.indiana.edu/archive/CSI/WP/WP02-04B.html>; Noriko Hara & Rob Kling, *Communities of practice with and without information technology*, 39 *PROCEEDINGS OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE AND TECHNOLOGY* 338 (2002); and Noriko Hara, *Information technology support for communities of practice: How public defenders learn about winning and losing in court*, 58 *JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE AND TECHNOLOGY* 76 (2007).

¹⁰² See HERBERT SIMON, *SCIENCES OF THE ARTIFICIAL* 111 (MIT Press 3rd ed. 1996). Herbert Simon argued that “Engineers are not the only professional designers. Everyone designs who devises courses of action aimed at changing existing situations into preferred ones... Design, so constructed, 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, education, law, and medicine, are all centrally concerned with the process of design.”

¹⁰³ The concept of lawyer as designer has been discussed in works such as Jill J. Ramsfield, *Law as Architecture: Building Legal Documents* (West 2000), Thomas D. Barton & James M. Cooper, *Preventive law and creative problem solving: Multi-Dimensional Lawyering* (California Western School of Law, <http://preventivelawyer.org>) 2000), http://preventivelawyer.org/content/pdfs/Multi_Dimensional_Lawyer.pdf, and Tanina Rostain et al., *Thinking Like a Lawyer, Designing Like an Architect: Preparing Students for the 21st Century Practice*, 88 *CHI.-KENT L. REV.* 743, 747 (2012). <http://scholarship.kentlaw.iit.edu/cklawreview/vol88/iss3/5>.

AALL Competencies of Legal Research¹⁰⁴ can be seen as part of the norms that are the backdrop of law practice. An activity-centered perspective can also encourage legal research instructors to engage in more active and experiential learning oriented assignments.¹⁰⁵ Simulations of various types which would mimic the characteristics of problem solving within an activity system could be formulated such as retracing student work based on past activity systems such as the analysis in [Anonymous 2008]. Paul Maharg, a proponent of simulations¹⁰⁶ in legal education, notes in his book *Transforming Legal Education: learning and teaching the law in the early twenty-first century* that:

“The world cannot be set aside. We are ineluctably part of the world and it of us, and our social relations affect generation of knowledge. In the past 30 years, fresh views of knowledge have formed - constructivism, situated learning and activity theory, to name a few - which have as much to say about the activities of academics and everyone involved in education as they have about student and professional learning. We owe ourselves, our students, and our discipline a duty to learn about and contribute to the development of these ways of knowing, and where appropriate, to integrate them with more familiar models of learning.”¹⁰⁷

There have been a few writings on the design role of lawyers in the legal literature. Thomas D Barton and James M Cooper, from the California Western School of Law National Center for Preventative law, state that: “Lawyers who can operate preventively and creatively are Designers and Problem Solvers. They achieve these capabilities by stressing honest communication with their clients, depth of understanding of differing interests and the soft spots or tension points along which problems arise, and a willingness to be proactive in restructuring the parties’ relationships and environments.¹⁰⁸” In a 1972 article titled *The Pedagogic Training of a Law Faculty*, Frank Strong notes the importance of social psychology in the learning process for legal education. As part of his listing of what he terms the components of legal education he mentions “Legal Design,” which he calls “fashioning the means for achieving the ends...”¹⁰⁹

An extensive treatment of the role of lawyer as designer can be found in the legal writing text *Law as Architecture: Building Legal Documents*, by Jill J. Ramsfield.¹¹⁰ Ramsfield states that “We can design as architects do: by interviewing clients, understanding the products they have in mind, and designing structures accordingly. By knowing our materials, we can select from them carefully and design documents to fit budgets and tastes.”¹¹¹ Vygotsky is noted in her bibliography, and she appears to take a type of cultural-historical approach, and urges students to take into account legal culture and traditions as part of the context of the process of legal writing. Even our adoption of legal research tools can be designed. For example, I have used a Building as a

¹⁰⁴ American Association of Law Libraries, *Principles and Standards for Legal Research Competency* (2013), <http://www.aallnet.org/mm/Advocacy/legalresearchcompetency>.

¹⁰⁵ Note that in Paul D Callister’s *Time to blossom: An inquiry into bloom’s taxonomy as a hierarchy and means for teaching legal research skills*, 102 LAW LIBR. J. 191, 208 (2010) he is critical of active learning methodologies. While I believe active learning and experiential learning methodologies have value, in this article, my perspective is that the terms “active” and “experiential” are instructional methods that legal research instructors can use to help attorneys recognize that they are in control of a design process. This means that they should pay close attention to the development, content, and use of legal research tools, rather than the “inaction” of just using the “Google box,” or the “Black box” as Judith Lihosit put it in *Breaking Down the Black Box: How Actor Network Theory Can Help Librarians Better Train Law Students in Legal Research Techniques*, supra note 11.

¹⁰⁶ Maharg, Paul and Owen, Martin, *Simulations, Learning and the Metaverse: Changing Cultures in Legal Education*. UK Centre for Legal Education, 2007, <http://ssrn.com/abstract=999541>.

¹⁰⁷ PAUL MAHARG, *TRANSFORMING LEGAL EDUCATION: LEARNING AND TEACHING THE LAW IN THE EARLY TWENTY-FIRST CENTURY* 6 (Ashgate Publishing Ltd. 2007).

¹⁰⁸ Thomas D. Barton & James M. Cooper. *Preventive law and creative problem solving: Multi-Dimensional Lawyering* http://preventivelawyer.org/content/pdfs/Multi_Dimensional_Lawyer.pdf.

¹⁰⁹ Frank R. Strong, *Pedagogic Training of a Law Faculty*, *The*, 25 J. LEGAL EDUC. 226, 231(1972).

¹¹⁰ See Jill J. Ramsfield, *Law as Architecture: Building Legal Documents* (West, 2000).

¹¹¹ Jill J. Ramsfield, *Law as Architecture: Building Legal Documents* Preface p. xvii (West, 2000).

Personal Library assignment,¹¹² which provides a real life focus on which resources would be purchased when establishing a law practice.¹¹³

Activity Theory helps us to see that just because the bulk of legal research now takes place in electronic formats does not mean that the law library and law librarians no longer have a critical role to play in the provision of and instruction in legal information. Social media has its place, but librarians can help students to understand the critical nature of their individual roles as builders and designers of legal documents who should have knowledge of and use the most appropriate tool for their information need. Access to information is not enough for today's law students and future lawyers. They have to understand the underlying structures of the information systems that they use and how those structures, including those from the print world, will grow and transform and change, as legal researchers change over time. A design oriented perspective to legal research frees students to explore, be creative, and create new structures, solutions, and ways of doing things, as opposed to passively accepting what is presented to them by man or machine.

From an Expansive Legal Research perspective, the AALL Legal Research competency standards¹¹⁴ can be seen as what a lawyer needs to know in order to find the information that they need to design legal arguments and strong legal documents. Many of the "timeless structures," which will remain constant regardless of resource format already exist as stated in the legal research competency standards. I have assigned the standards as readings in advanced legal research classes.

In the final session of some of my previous advanced legal research course, we talked about how the most important piece of information that should be findable is the attorneys themselves. The practicing attorney is the most critical piece of the legal information system, and they should be the active drivers of the research process, rather than passively accepting search results which are more likely to steer the student towards what is in common usage as opposed to new and novel solutions. In my most current Advanced Legal Resource course I moved this point to the first class session.

Role of Tacit Knowledge and Unwritten Rules in Daily Activity and Practice—Teach about Tacit Knowledge, and Informal Information Sources

Activity Theory encourages a focus on tacit knowledge, informal information sources, and social aspects of information seeking and use. There have been attempts at artificial intelligence and expert systems in law, but only in intensively rule-based areas such as tax has there been much success with systems such as TurboTax.¹¹⁵ This may in large part be due to the fact that many aspects of law involve unwritten rules, informal sources of information, and tacit knowledge. A lot of the practice of law is as much about knowing the players as it is about knowing the law itself. Andrea M. Seielstad, writing about clinical legal education, states that:

In addition to realizing how nebulous and evasive the factual "truth" can often be, many students are genuinely shocked by the extent to which unwritten rules and local customs - including relationships, power dynamics, and shared understandings between certain participants in the legal process - play a role in

¹¹² See [Anonymous 2008] Details omitted for blind reviewing.

¹¹³ Cite my AALL Legal Research Teach-in Personal Law Library Assignment - <http://www.aallnet.org/sections/rips/pdfs/23rd-Legal-Research-Teach-In/Presentations-and-Course-Materials/Personal-Law-Library-Project>. Note that other personal law library assignments have been created in the past. My own assignment was based on a past legal research teach-in assignment, and Paul Callister, from his own theoretical perspective, also uses such assignments. See the "Building a Library Exercise" from Paul D. Callister, *The Metacognitive Imperative*, in THE BOULDER STATEMENTS ON LEGAL RESEARCH EDUCATION: THE INTERSECTION OF INTELLECTUAL AND PRACTICAL SKILLS 79 (Susan Nevelow Mart ed. 2014).

¹¹⁴ American Association of Law Libraries, *Principles and Standards for Legal Research Competency* (2013), available at <http://www.aallnet.org/mm/Advocacy/legalresearchcompetency>. See also American Association of Law Libraries, *Core Legal Research Competencies: A Compendium of Skills and Values as Defined in the ABA's MacCrate Report: A Report by the American Association of Law Libraries' Research Instruction Caucus* (1997), <http://www.aallnet.org/sections/rips/research/Core-Legal-Research-Competencies/core.pdf>.

¹¹⁵ See Jon Bing, *Computers and Law: Some beginnings*, 49 IT - INFORMATION TECHNOLOGY 71 (2007).

American judicial systems. This is particularly the case if the students have not been adequately prepared in advance for the reality of law in action.¹¹⁶

Because Activity Theory includes consideration of social rules and norms, in addition to people both individually and in groups, it is conducive to consideration of more informal aspects of information behavior and law practice. An Activity Theory analysis highlights social and informal aspects that are of importance in clinical instruction and other forms of experiential learning. Vicenç Feliú and Helen Frazer write about the importance of embedded librarians¹¹⁷ in a law clinic setting and how they can be particularly effective in teaching legal research as a lawyering skill. They note that: “Here the opportunity arises for teaching students how to devise a research plan that is efficient and cost-effective; evaluate results from online research services that use databases relying on algorithms versus human indexed resources or vice versa; and learn how to research analogous law, extra-legal resources, unwritten rules and practices or custom, and ethical practice.”¹¹⁸ An Activity Theory perspective provides insight into why it may seem that certain information resources are being avoided or why researchers may not seem to be doing legal research at all in the formal, traditional sense. One of the most involved cases in the farmworker legal aid clinic study concerned information that at the end of the day was found to be tacit in nature. The clinical instructor and students reached out to more than 40 experts for that case alone. The social substrate of the law school clinic observed during the study, while admittedly a study of novice legal researchers, still provides support for further exploration not only in the context of Activity Theory, but also of other more socially-based perspectives of legal information behavior (and information behavior generally) such as distributed cognition, actor network theory, and communities of practice.¹¹⁹ Hara and Kling in their Community of Practice studies of public defenders found that tacit knowledge, griping, and jokes were all observed as part of the community of practice.¹²⁰ They noted that the best way to learn tacit, practical knowledge is to observe other, more experienced attorneys in practice. Perhaps “why Johnny can’t research” is a false distinction, in that we have only been taking into account only part of the role of the legal researcher the nature of the legal research task. In fact “Johnny Researcher” may not have to do legal research at all, especially as the practitioner gains more experience.

Cultural Historical Approach to Learning and Development

Activity Theory is known for its “cultural historical” approach to information behavior. An activity-centered perspective provides a different viewpoint on the history, development, and importance of legal research tools. The Activity Theory perspective encompasses the aggregation of human activities over time as they change and are changed by the interacting forces of technology, culture, and society. Susan G. Fowler, in her 2007 participant observation study of small law firm attorneys who were members of the Lyon County Law library for the fifth judicial district of Kansas, stated that “Culture is the context in which professionals practice. Lawyers work primarily in the legal culture, with its extensive rules and procedures. Attorneys are responsible for maintaining professional conduct in relation to their clients and the court.”¹²¹ She also noted other cultural considerations, stating “in addition to the legal culture, attorneys find themselves practicing within the immediate social culture, in this case, that of a sparsely populated rural/ frontier region.” She discussed, for example, the procedure for records checks. Prosecutors in both counties routinely run criminal background checks prior to court hearings. Everyone in Chase County knows

¹¹⁶ Andrea M Seielstad, *Unwritten Laws and Customs, Local Legal Cultures, and Clinical Legal Education*, 6 CLINICAL L. REV. 127 (1999).

¹¹⁷ It could be said that my own experience with the [Details omitted for blind reviewing] Law clinic as a participant/observer was an example of an embedded librarian in the clinical setting.

¹¹⁸ Vicenç Feliú & Helen Frazer, *Embedded librarians: teaching legal research as a lawyering skill*, VILLANOVA LAW/PUBLIC POLICY RESEARCH PAPER 540, 543 (2010), <http://lawlib.unc.edu/aals/embedded.pdf>.

¹¹⁹ See Jean Lave & Etienne Wenger, *SITUATED LEARNING. LEGITIMATE PERIPHERAL PARTICIPATION* (Cambridge University Press, 1991) and Etienne Wenger, *COMMUNITIES OF PRACTICE: LEARNING, MEANING, AND IDENTITY* (Cambridge University Press, 1998).

¹²⁰ cite.

¹²¹ Susan G. Fowler, Results of participant observation in the Fifth Judicial District: Customizing the county law library to meet the needs of small firm attorneys in rural Kansas. 4th International Evidence Based Library & Information Practice Conference 6–11 May 2007 Chapel Hill-Durham, NC, USA (2007). <http://www.eblip4.unc.edu/papers/Fowler.pdf>.

each other, so not only can the prosecutor request a check on someone else by phone, he's just as likely to engage in from the chitchat with the sheriffs dispatch are in the process. By contrast, the prosecutors in Leon County must make their background checks in writing.¹²²

Jill J. Ramsfield, in her legal writing text *Law as Architecture: Building Legal Documents*, states: "The legal culture places you in specific surroundings and under certain expectations. The circumstances spring from traditions whose origins may be obscure but whose followers are devout. You are expected to honor these traditions, such as using particular forms or formal openings, and to incorporate them into your writing."¹²³ Another perspective from the law library literature which appears to have cultural and historical aspects is Paul D. Callister's *Law's Box: Law, Jurisprudence and the Information Ecosphere*, in which he stated that "The symbiotic relationship of information environment and modes of perception, particularly with reference to culture, constitute the information ecosphere or infosphere."¹²⁴ From this perspective, legal research can itself be seen as a tradition with a history and culture to which law librarians introduce students.

The cultural-historical viewpoint can especially influence how one views the role and importance of legal research tools such as indexes and classification schemes, which have been in existence for many years, but are increasingly being considered passé in favor of keyword search strategies. For example, research has indicated that there is less use of the Digest system among contemporary legal researchers.¹²⁵ Judith Lihosit, writing about Actor Network Theory and legal research, argues that the social nature of law practice means that attorneys will obtain the information they need regardless of use of tools such as the digest. Lihosit states that "...even though a formal apprenticeship period is no longer required for attorneys in the United States, the information networks that exist among attorneys constitute a sort of informal apprenticeship system, and that this system continues to do the work that others have assumed was being done by the digest system."¹²⁶ However, the work of Vygotsky upon which Activity Theory is based is known for its inclusion of human language as a type of tool to which humans might turn in order to reach their objectives. In an Activity-centered cultural-historical perspective, it is important to provide instruction about the development of, characteristics of, and advantages of "language tools" such as indexes, abstracts, and classification systems such as the Digest.¹²⁷ From the standpoint of Activity Theory the issue of classification schemes versus keyword searching should be taught as part of how legal research methods and tools change over time. Legal research tools, both print and electronic, are in a constant state of growth and change.¹²⁸ As attorney's search preferences transition from older legal research tools such as the print digest to new tools, such as keyword searching, they should be aware of new versions and formats of these tools such as the online West Digest tool in Westlaw Next. The challenge is in identifying the timeless concepts that attorneys will turn to in their research again and again, regardless of their format, and that they can draw on years later even when the legal research tools and vendors appear on the surface to be quite different from the search tools they were introduced to in law school. Of course, Activity Theory also takes into account the need for delegating legal research (often to younger, less experienced, and less empowered attorneys).

¹²² Susan G. Fowler, Results of participant observation in the Fifth Judicial District: Customizing the county law library to meet the needs of small firm attorneys in rural Kansas. 4th International Evidence Based Library & Information Practice Conference 6–11 May 2007 Chapel Hill-Durham, NC, USA (2007). <http://www.eblip4.unc.edu/papers/Fowler.pdf>.

¹²³ Jill J. Ramsfield, *LAW AS ARCHITECTURE: BUILDING LEGAL DOCUMENTS* 7 (West, 2000).

¹²⁴ Paul D. Callister, *Law's Box: Law, Jurisprudence and the Information Ecosphere*, 74 UNIVERSITY OF MISSOURI-KANSAS CITY LAW REVIEW 263 (2005). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=703062.

¹²⁵ See Stefan H. Krieger & Katrina Fischer Kuh, *Accessing Law: An Empirical Study Exploring the Influence of Legal Research Medium*, 16 VAND. J. ENT. & TECH. L. 757 (2014), Ellie Margolis, *Authority Without Borders: The World Wide Web and the Delegalization of Law*, 41 SETON HALL L. REV. 909 (2011), Lee F. Peoples, *Death of the Digest and the Pitfalls of Electronic Research: What Is the Modern Legal Researcher to Do, The*, 97 LAW LIBR. J. 661 (2005) and Robert C. Berring, *Collapse of the structure of the legal research universe: The imperative of digital information*, 69 WASH. L. REV. 9 (1994). It could also be that the digests are just not as accessible after graduation.

¹²⁶ Judith Lihosit, *Research in the Wild: CALR and the Role of Informal Apprenticeship in Attorney Training*, 101 LAW LIBR. J. 157, 159 (2009).

¹²⁷ See for example, Susan Nevelow Mart, *The Case for Curation: The Relevance of Digest and Citor Results in Westlaw and Lexis*, 32 LEGAL REFERENCE SERVICES QUARTERLY 13(2013).

¹²⁸ For an evaluation of the impact of the changes in the WestlawNext database service see Ronald E. Wheeler, *Does WestlawNext Really Change Everything-The Implications of WestlawNext on Legal Research*, 103 LAW LIBR. J. 339 (2011).

Activity Theory can also be seen to expand the concept of search to more than just the database or other physical research tools. “Searching” expands to the legal information systems used in law practice, such as litigation support software like Concordance which manages the attorney’s own deposition transcripts and other evidentiary data. Law practice management systems such as Amicus Attorney, which help to manage contacts and tools that maximize the value of people and community also gain more importance in legal research instruction. As we have seen, management of the attorney’s research notes and case files grows in importance, along with the tools for sharing research data with team members such as the shared folders features available in Lexis, Westlaw, and Bloomberg Law. Use of tools such as Cali’s A2J Author in courses also helps to connect students to a broader base of legal research activity as they construct the types of legal forms that they may one day use in practice.¹²⁹ The concept “search” in Activity Theory also expands to other people, informal sources of information, information already known to the searcher, social rules and norms, and tacit knowledge. As Judith Lihosit has written:

“the model I discovered in my study is one where attorneys develop their knowledge base from distributed social networks, what I call the present-day manifestation of the apprenticeship system, rather than from any individual and controlled textual source such as the digest. The research tools attorneys use depend on what the other attorneys in their networks use. Therefore, while the specific format of materials and the techniques of research may change over time, those changes are filtered through that network of attorneys. This network itself adapts to changes in external conditions, thus acting to mediate the rate of change, and subsequently lessening the impact that those changes will have on how attorneys do their research.”¹³⁰

Activity Theory and other socially-oriented approaches such as distributed cognition and Actor Network Theory all emphasize the importance of social interactions, which were previously not heavily valued earlier theories of human behavior. However, Activity Theory provides a more structured outlook allows examination of a variety of factors, which influence how people use tools to achieve their goals, while still recognizing the importance of the individual actors and the tools they use.

The cultural-historical underpinnings of Activity Theory themselves provide alternative ways of considering the legal research task. Looking at legal research in terms of an activity system can spark more innovative approaches to teaching, such as using storytelling and historical approaches to show how cases such as the Amistad are still relevant to legal research today. In legislative history an instructor can follow the cultural history of a piece of legislation over several years such as with the religious freedom restoration act. An activity-centered approach could lead to teaching more about the history and development of the legal research databases themselves in more advanced legal information systems courses. Students can be offered more study of the historical background of the information systems they use, so that they are empowered users rather than consumers that fall sway to the latest database flavor of the moment. These are all topics that cannot be covered only in mandatory sessions in the 1L year. Legal research need to reach across the curriculum¹³¹ to provide students with the comparative perspective so that law students need can evaluate in context existing systems or systems that are later developed, including the legal artificial intelligence and expert systems that are just around the corner.

Looking at legal research from a historical-cultural perspective means that we should try to begin legal research instruction as soon as possible, preferably BEFORE the beginning of the 1L year. A Street Law or access to justice self study legal research curriculum could be provided to students after acceptance before the start of law school. Free authoritative legal resources would be the focus, and an exercise could be done based on the material during orientation as a basic introduction to legal research and the sources of law. Ironically, free web sources of law, such as the individual website for the United States Code at uscode.house.gov and the ecf.gov website are excellent tools for helping to make students aware of the underlying structure of the print system in the digital age. Each individual website maps well to a corresponding print book as well as to fee-based databases. Ron Wheeler, Director of Suffolk Law School Library in Boston, Massachusetts, notes that support should continue

¹²⁹ See Ronald W Staudt & Andrew P Medeiros, *Access to Justice and Technology Clinics: A 4% Solution*, 88 CHI.-KENT L. REV. 695(2013).

¹³⁰ Judith Lihosit, *Research in the Wild: CALR and the Role of Informal Apprenticeship in Attorney Training*, supra note 31 at p. 158.

¹³¹ Brooke J. Bowman, *Researching Across the Curriculum: The Road Must Continue Beyond the First Year*, 61 OKLA. L. REV. 503(2008).

for students as they become alumni. This would assist not only the practitioner but also the communities that they serve.

Above all, an activity-centered perspective helps to reflect on how we change and are changed by our legal research tools. There is a push and pull, a give and take, between the elements of the activity system. Recent research indicates that law students approach legal research differently depending upon the format they are searching. An article by Stefan H Krieger & Katrina Fischer Kuh notes that the move to electronic research may result in changes in the legal reasoning process that should be taken into account by instructors of legal research.¹³² Those that searched for print information tended to frame their search in terms of legal concepts whereas students who searched electronic databases tended to frame their search in terms of fact situations. This is a perspective that law students should be aware of, regardless of which search style they ultimately decide to utilize in their legal research. A cultural-historical perspective can provide an understanding of legal research as social practice, as a part of the practice of legal writing and of the concurrent push for legal research to be taught in terms of practice by legal writing instructors. However, the trend towards removing live librarian instruction in the 1L year means that students do not get a feel for the culture of legal research, a context within which they can evaluate the vendors, the sales pitches, and the next, new “search tool X” that is always on the horizon.

I was taught that one of the most important things that a teacher can impart to a student is excitement about the topic. In *Advanced Legal Research* I try to include information about the historical development of legal research tools. Readings from *The Legal Information Buyer's Guide and Reference Manual* were used to focus on the historical development of legal research tools and the legal research market. This also acculturates students to the reality that there will always be changes in legal information sources due to shifts in the marketplace and innovations in technology. As the Florida A&M University College of Law has a focus on social justice, in the advanced legal research class, we discussed access to information as a human right and the Access to Justice movement.¹³³ This hopefully provided insight for students and how they themselves are a part of that movement.

We also discussed current news events concerning legal research topics. For example in one unit called “The wrong law”, the class discussed how the grand jury in Ferguson Missouri could have been given the wrong law with respect to the use of force. In the discussion it was noted that making such mistakes in legal research is far easier than most lawyers want to admit. Discussion then turned to careful reading of statutes’ and use of the statutes table of contents to make sure that essential information is not being missed. Discussion also took place about the role of the legislature in updating statutes that have been overturned by the Supreme Court, which is the case of what happened in Missouri.

In first year orientation for legal research presentations have been given about the Amistad case and the importance of the Amistad case in legal research today. Historical reference was made to the Amistad case, where novel categorization of the problem in terms of international treaties as opposed to the legality of slavery, which was a losing proposition at the time of the Amistad case in the 1830s. This was also a cultural issue of interest as the school where this was taught has a strong interest in human rights and civil rights. This is also sometimes discussed as a theme in the *Advanced Legal Research* course.

An activity-centered perspective provides an alternative way to talk about and study the practice of legal research, the design nature of the legal research task, with the legal researcher as an active producer of legal information objects. It encourages us to look at both the individual as well as the social nature of legal research and provides a context for the legal research task, which includes both individual use of research tools as well as social participation. A cultural-historical approach to learning helps to generate excitement about the legal research topic, which in turn encourages the student engage in independent learning.

¹³² Stefan H Krieger & Katrina Fischer Kuh, *Accessing Law: An Empirical Study Exploring the Influence of Legal Research Medium*, 16 VANDERBILT JOURNAL OF ENTERTAINMENT & TECHNOLOGY LAW 757(2014).

¹³³ See Yolanda Jones & Caroline Ilako, *Dynamic Law Libraries: Access, Development and Transformation in Africa and the United States*, (2015) <http://library.ifla.org/1120/>.

The Researcher and Their Tools are Undergoing A Constant Process of Growth and Change and Transformation—Intervention and the Law Library as Change Laboratory

Activity Theory allows us to view several factors affecting information behavior in one flexible framework. With this in mind, Activity Theory can help us understand, if thought of in terms of the concept of “least effort,”¹³⁴ why in some instances people might go “downhill” and focus on community resources rather than going “uphill” and focus 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 librarians know may help the most. In effect, an activity-centered perspective expands the concept of what an information system is to include and the social sphere in which the individual operates. An activity-centered perspective allows us to visualize legal research in terms of an ecosystem, in which we shape and in turn are shaped by our research tools.¹³⁵ In the article, Vygotsky’s Neglected Legacy, it states that a cultural-historical activity perspective (CHAT) “... theorizes persons continually shaping and being shaped by their social contexts that immediately problematize knowledge as something discrete or acquired by individuals. In fact, CHAT explicitly incorporates the mediation of activities by society, which means that it can be used to link concerns normally independently examined by sociologists of education and (social) psychologists. This desirable synthetic approach is possible only because activity theorists are concerned with upholding human activity—the historical results of the division of labor—as the fundamental unit of analysis, which had partially existed in the work of Vygotsky.”¹³⁶ The article goes on to state that “hence, learning is equivalent to the mutual change of object and subject in the process of activity; human beings plan and change the material world and societal life just as the settings mutually transform agents and the nature of their interactions with each other.”¹³⁷

As opposed to information transfer, as it is traditionally conceived, cultural historical Activity Theory sees learning as a process of both individual and social development. Paul Maharg, in *Transforming Legal Education* states that “... while there are effective ways to educate as proven by the research, in practice there are likely to be various ways to achieve such effective education, since students, institutions and communities need alternatives. In the process of exploring those alternatives, undergraduates move towards graduation, graduates move from being novices towards becoming competent practitioners and practitioners move towards becoming experts. It is a process of gradual transformation and the analysis of this process is what lies at the core of this book.”¹³⁸ Maharg further states that “It is about the transformation that takes place while students are in our care, the slow transformation brought about by their learning a discipline, exploring professions, entering them, the slow and essential process of growing in wisdom, of coming to who you are and what you’re capable of.”¹³⁹

The Law Library is where we quarry the raw materials, the bricks and mortar that are used to construct scholarly publications and legal documents. The Law Library is the place where law students begin to discover their individual identity as attorneys and explore their roles in groups, in teams, and in the communities of practice¹⁴⁰ in which all lawyers function. In doing so, librarians should focus on the fundamental identity of attorneys as designers and active producers of information, as opposed to passive consumers. We should nourish the legal imagination, and

¹³⁴ See Yolanda Patrice Jones, “*Just the facts Ma’am?*” a contextual approach to the legal information use environment, 335–336 (2008). <https://idea.library.drexel.edu/islandora/object/idea%3A2837>; George Kingsley Zipf, *Human behavior and the principle of least effort* (1949).

¹³⁵ This concept of shaping and being shaped by our legal research tools was described in a 2005 blog post on the Out of the Jungle Blog. See Betsy McKenzie, The Shape of the Law, Out of the Jungle Blog, Thursday, December 15, 2005 <http://outofthejungle.blogspot.com/2005/12/shape-of-law.html>, citing Scott P. Stolley, *The Corruption of Legal Research*, FOR THE DEFENSE 39 (April 2004). <http://personal.law.miami.edu/rschard/corruption.pdf>. See

¹³⁶ Wolff-Michael Roth & Yew-Jin Lee, “Vygotsky’s Neglected Legacy”: *Cultural-Historical Activity Theory*, 77 REVIEW OF EDUCATIONAL RESEARCH 186, 189 (2007). <http://rer.sagepub.com/content/77/2/186.abstract>.

¹³⁷ Wolff-Michael Roth & Yew-Jin Lee, “Vygotsky’s Neglected Legacy”: *Cultural-Historical Activity Theory*, 77 REVIEW OF EDUCATIONAL RESEARCH 186, 198 (2007). <http://rer.sagepub.com/content/77/2/186.abstract>.

¹³⁸ PAUL MAHARG, *TRANSFORMING LEGAL EDUCATION: LEARNING AND TEACHING THE LAW IN THE EARLY TWENTY-FIRST CENTURY* 3 (Ashgate Publishing Ltd. 2007).

¹³⁹ PAUL MAHARG, *TRANSFORMING LEGAL EDUCATION: LEARNING AND TEACHING THE LAW IN THE EARLY TWENTY-FIRST CENTURY* 3 (Ashgate Publishing Ltd. 2007).

¹⁴⁰ ETIENNE WENGER, *COMMUNITIES OF PRACTICE: LEARNING, MEANING, AND IDENTITY* (Cambridge University Press, 1998).

facilitate interactive learning, innovation, creativity, and collaboration for all who use the Law Library. The Law Library is now as much a virtual space as a physical space. As such, in addition to providing great customer service we should support learning, communities, and practice not only for the members of the community of learning here at the law school, but also for members of the legal community and the general community as a whole. The role of the law library expands to a statewide, national, and international role.

So how does one cultivate a culture of legal research? How do you get students to think about some of the tensions and inner contradictions of legal research sources and the legal marketplace? As noted previously, from the perspective of Activity Theory, conflict-tensions and inner contradiction within the activity system are the major drivers of transformation and change. My reflections on Expansive Learning and Activity Theory, with their focus on a cultural-historical approach, and tensions and inner contradictions within the activity system, have led to a list of “Big Issue” theme questions, which I address at various points in my course instruction and trainings. The goal of using these themes is to help students recognize the tensions and inner contradictions within the legal research field, such as the legal information marketplace versus Open Access and the Access to Justice Movements. There are always tradeoffs of time, money, and effort. I will often place some of these questions in my course syllabus for Advanced Legal Research, and some may be highlighted in my lesson plan for discussion or in-class exercises. For example, themes could be explored such as:

- Where does the law reside? In the library? Only in the books and databases?
- Who owns the law? How did companies such as Westlaw rise to dominance in the legal publishing industry selling free legal information as a core service? Is access to legal information a human right? What is Open Access? What is the Access to Justice Movement?
- Other than the traditional books and databases, what is fair game in terms of legal research tools? Google? Wikipedia? Calling someone on the phone? What is “authoritative”?
- What are the unchanging principles of legal research and legal research resources that will remain the same regardless of changes in the format of the research tool? How do the underlying structures of print legal research (index, table of contents, digest etc.) translate into electronic form? Does print vs. electronic format impact how you approach searching a legal issue?
- Why don’t people use the digest as much as they used to in legal research?
- Humans vs. computer algorithms: are some citators better than others? Does the future of legal research lie with algorithms? Lawyers probably don’t have to worry about artificial intelligence taking their jobs in the near future. Why or Why not?
- Has the concept of “search” expanded beyond the usual legal research sources? Are there ever really “certain” answers in the law or legal research?

Apart from inspiring these “Big Themes” in legal research, taking a broader look at the history and culture of the legal information use environment also reveals tensions between how law students are traditionally taught legal research and how they are actually engaging in legal research in practice. The study discussed in this article was conducted several years ago, before social media rose to prominence. Yet it was found after ethnographic observation that the clinic students did not employ the traditional legal research methods as they were taught by the law librarians in the 1L legal research course. This research supports researchers who have noted that much of what happens in legal research is based upon social and cultural factors, which are often not addressed in many of the traditional models of information behavior.¹⁴¹ However, in an activity-centered perspective, individuals, their tools, and their social environment are in a constant state of mutual growth and change. The entire activity system evolves over time. An activity-centered perspective helps us to understand that while formal legal authorities and their finding tools such as the West Digests may be only one of many routes to resolving the problem at hand, the Digests are evolving as well.

IV. CONCLUSION: THE EXPANSIVE NATURE OF LEGAL RESEARCH IN PRACTICE

Exploring the concepts of Expansive Learning and Activity Theory has influenced how I think about legal research, instruction, and services. Activity Theory allows us to view several factors affecting information behavior

¹⁴¹ Judith Lihosit, *Research in the Wild: CALR and the Role of Informal Apprenticeship in Attorney Training*, supra note 31 at p. 167.

in one flexible framework. With this in mind, Activity Theory can help us understand why, if thought of in terms of effort,¹⁴² why 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 librarians know may help the most. In effect, an activity-centered perspective expands the concept of what an information system is to include in the social sphere in which the individual operates.

Paul Callister noted that “...law librarianship has an overabundance of descriptive literature about teaching methods (mostly, what we do at our respective schools) without significant basis in pedagogical theory.”¹⁴³ A variety of theoretical perspectives strengthens legal information behavior as an area of research, and each librarian can be seen as a researcher of legal information behavior when we consider the rich data that we generate on a daily basis in the form of statistics, usage data, surveys, reference interviews, and focus groups that is often taken for granted. Each law librarian should be aware of his or her theoretical perspective(s) towards research and practice. Consciously or unconsciously, one’s theoretical perspective will influence the provision of legal research instruction and services. As we have seen, some socially oriented theories may focus on the strength of the social network while not as much focus is placed on individual tools such as the Digests. Activity Theory also helps us to recognize the tensions and inner contradictions in the historical development and the use of legal research tools. Conversely, while Activity Theory and Expansive Learning provide a specific context for the use of individual search tools that may be useful in some situations, it may not take into account factors that are not part of its particular view of behavior.

What an Expansive Legal Research perspective can do is to provide a specific context to examine legal information behavior, which includes a focus both on the individual people, their work activities, the systems that they use and their social environment. An activity-centered viewpoint can help us to see the dynamic social context and the development, growth and change of research tools over time. It can show how the legal researcher can take on more of a design role and be more aware and in control of his or her search methods and search tools, be they from formal or informal sources. The Law Library is where we quarry the raw materials, the bricks and mortar that are used to construct scholarly publications and legal documents. The Law Library is the place where law students begin to discover their individual identity as attorneys and explore their roles in groups, in teams, and in the communities of practice¹⁴⁴ in which all lawyers function. The Law Library is where we help to shape the fundamental identity of attorneys as designers and active producers of information, as opposed to passive consumers. We should nourish the legal imagination, and facilitate interactive learning, innovation, creativity, and collaboration for all who use the Law Library. Thinking of legal research, instruction, and services expansively, can help us to see legal research in action, providing a dynamic perspective on services, instruction, and spaces for legal research and law practice in the twenty-first century and beyond.

¹⁴² See George Kingsley Zipf, *Human behavior and the principle of least effort* (1949).

¹⁴³ Paul D Callister, *Time to blossom: An inquiry into bloom’s taxonomy as a hierarchy and means for teaching legal research skills*, 102 LAW LIBR. J. 191(2010).

¹⁴⁴ ETIENNE WENGER, *COMMUNITIES OF PRACTICE: LEARNING, MEANING, AND IDENTITY* (Cambridge University Press, 1998).