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If Only We Knew What We Know

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IF ONLY WE KNEW WHAT WE KNOW

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Consider the basic rhythms of legal work. In one common pattern, clients come to lawyers and present problems hoping that the law will provide some form of redress. Lawyers scour the law, reflect on their experiences and sometimes utilize the expertise of others to craft options that will address their client's goals and concerns. Typically, when the representation has concluded the lawyer moves on, perhaps to matters that are related, often to challenges that require us to develop expertise in other areas.

To be sure, we retain at least some of the knowledge gained through each lawyering experience. However it is at least as certain that some of the lessons learned and the information acquired through the course of each representation fades to the point where it is unavailable for future use. Much of what we learn by dint of hard work is left on the cutting room floor. Much of what we once knew is forgotten. Much of what we wish we could pass on to our colleagues, to clients or even recall for ourselves is abandoned in the press of new work.

The fundamental problem of managing knowledge has been with the profession since the earliest legal proceedings at Westminster, through the print era and has carried forward into the digital age. It is a challenge that lawyers will face far into the future. The prevailing modes of information transfer that are available to lawyers often dictate the methods we choose to preserve knowledge. In the early days of Anglo-American law practice, lawyers relied on being physically present and utilized their memory or their capacity for note taking as a way of building expertise. With the advent of the printing press, text became the dominant method for acquiring and preserving knowledge.[1] Now, at what are still the early stages of the digital age, new tools of knowledge management are available to us. Our methods may change, but the problem remains the same.

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1. *See generally* ELIZABETH L. EISENSTEIN, THE PRINTING PRESS AS AN AGENT OF CHANGE: COMMUNICATIONS AND CULTURAL TRANSFORMATIONS IN EARLY MODERN EUROPE (1979); WALTER J. ONG, ORALITY AND LITERACY: THE TECHNOLOGIZING OF THE WORLD (Routledge 1991).

The challenge of finding new and better ways to develop, retain, and share expertise has never been more pressing. The information explosion that we are experiencing as a result of the switch to digital technologies is unprecedented. It forces us to consider new methods of managing the onslaught of information that lawyers are increasingly expected to know. The possibilities of acquiring new knowledge from the ever-expanding universes of data that are available to us through free and proprietary sources creates growing expectations that lawyers will be able to effectively manage the vast sums of information that can be gathered.

For the past thirteen years, the Lawyering in the Digital Age Clinic at the Columbia University School of Law has focused entirely on working at the intersection of technology, law practice and the profession. We began this enterprise in part, to equip our graduates with the analytical framework and practical skills necessary to succeed in contemporary practice.

We acknowledged the simple fact that technology was not going to go away. Just as technology has changed much of everyday life, so too has it profoundly affected the practice of law. The mere fact that lawyers have computers on their desks and near constant access to the Internet does not mean that lawyers understand how to consistently use these tools in thoughtful, innovative or professionally sustaining ways. Having a computer can be no more important than having a pen and paper. What matters is how one learns to use the powerful new tools that are available to us.

In this article, we begin with a brief summary of the "basic lawyering paradigm" that we developed in our clinic. From there, we focus on one aspect of our curriculum: managing knowledge. With that as background, we locate the Access to Justice (A2J) application within the structure of our work. In so doing, we provide a case study of how we used the A2J application in conjunction with our partners in the New York Court system to address a pressing need on the part of *pro se* litigants.

I. BASIC LAWYERING PARADIGM

In our clinic, we view law as a profession that runs on information.[2] Every lawyering task has an information component.[3] Law-

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2. The historical perspective provided by two legal scholars, Ethan Katsh and Peter Martin contributed greatly to the development of the framework used in our clinic. *See generally* M.

yers essentially do three things: we gather, manage and present information. With information as the thread that runs through all lawyering work, it is essential that we focus on the role of information technologies in law practice. By doing so, we help our students to become more effective, productive, and innovative professionals.4

We organize our syllabus around the "basic lawyering paradigm".5 For pedagogical purposes, our syllabus is divided into units that explore gathering, managing and presenting information respectively. In each unit, we cover, the "Three T's": theory, technique, and tools. So, for example, in the "Gathering" unit, we consider the role of gathering information in lawyering, the types of information that lawyers gather, and how gathering information has changed over time, with an emphasis on how gathering occurs in the digital age. Beyond that, we explore traditional lawyering techniques/skills that involve gathering, such as interviewing, in addition to the skills of contemporary practice that involve gathering, such as electronic fact gathering and searching. To round out the "Gathering" unit, we examine the major digital tools that lawyers use to gather information productively.

Similarly, in the "Managing" unit, we discuss the pivotal role that managing information plays in lawyering work. Students gain experience in the traditional managing technique/skill of counseling. In addition, significant time is spent on learning how to effectively engage in the contemporary lawyering task of knowledge management. Through exercises, readings, class discussion and role-plays, students gain a practical sense of how knowledge management manifests in both public interest and private sector law practice. Students are exposed to a range of knowledge management tools that are designed to leverage

ETHAN KATSH, THE ELECTRONIC MEDIA AND THE TRANSFORMATION OF LAW (1989); Ethan Katsh, *Digital Lawyers: Orienting The Legal Profession To Cyberspace*, 55 U. PITT. L. REV. 1141 (1994); M. ETHAN KATSH, LAW IN A DIGITAL WORLD (1995); PETER W. MARTIN, *Pre-Digital Law: How Prior Information Technologies Have Shaped Access to and the Nature of Law*, 30 R. J. T. 153 (1996).

3. Frederick Schauer and Virginia J. Wise, *Legal Positivism as Legal Information*, 82 CORNELL L. REV. 1080, 1102-03 (1997) ("[O]ne strong reason to focus on the information base of lawyers and judges is that here, arguably more than anywhere else, we are in the midst of dramatic changes . . . One series of subhypotheses, therefore, is (1) that rapid changes in the technology, the economics, and the institutional structure of the delivery of legal information have wrought substantial changes in the way in which lawyers and judges get their information; (2) that these changes have in turn produced equally substantial changes not only in the quantity but in the very nature of the information base–the sources–on which legal decisionmakers rely; and (3) that these changes in the nature of legal sources have in turn produced commensurate changes in the nature of law itself.").

4. The "Basic Lawyering Paradigm" was developed for use in the "Lawyering in the Digital Age Clinic."

5. *See infra* note 25.

experience, increase collaboration and inculcate best practices. This is where our work with the A2J software becomes particularly important.

II. A2J AND KNOWLEDGE MANAGEMENT

Earlier, we cited preparation for law practice as one major objective of our clinic. We share this goal with clinics, generally. The long running debate about legal education's emphasis on theory at the expense of preparing students to be proficient lawyers[6] has become even more sharply focused as a result of the economic downturn of the last few years. Law schools have benefited from the perception that skills-based training provided in clinics can help students to be more immediately effective and employable.[7] For decades now, clinicians have worked diligently to improve the ways that skills are taught. Clinics are typically very successful at teaching a wide range of core, transferrable lawyering skills.[8]

In his article commemorating twenty-five years of the Clinical Theory Workshop[9], Steve Ellman observed that clinics "strive to teach effective lawyering techniques" and that "preparing students for effective practice is surely one goal of clinical teaching."[10] Ellman, however, begins by highlighting the contribution by Peter Toll Hoffman in *Law Schools and the Changing Face of Practice.*[11] Hoffman argues that "despite the increase of clinical and skills courses, law schools continue to be a "step behind" in preparing students for the practice of law."[12] Hoffman states that the purpose of his article is to point out "that legal education today is readying students for a legal practice that is fading away or no longer exists, thus failing to prepare students for the type of practice they will confront upon graduation."[13]

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6. David Segal, *What They Don't Teach Law Students: Lawyering*, N. Y. TIMES, Nov. 20, 2011, at A1.

7. Ann Marie Cavazos, *Demands of the Marketplace Require Practical Skills: A Necessity for Emerging Practitioners, and Its Clinical Impact on Society - A Paradigm for Change*, 37 J. LEGIS. 1, 11 (2011).

8. Harriet N. Katz, *Evaluating the Skills Curriculum: Challenges and Opportunities for Law Schools* 59 MERCER L. REV. 909 (2008); WILLIAM M. SULLIVAN & CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING, EDUCATING LAWYERS : PREPARATION FOR THE PROFESSION OF LAW (2007).

9. Stephen Ellmann, *What We Are Learning*, 56 N. Y. L. SCH. L. REV. 171 (2011-2012).

10. *Id.* at 174.

11. Peter Toll Hoffman, *Law Schools and the Changing Face of Practice*, 56 N. Y. L. SCH. L. REV. 203 (2011-2012).

12. *Id.* at 205.

13. *Id.*

In his most recent book, Richard Susskind[14] reiterates his belief, expressed in his earlier works, that there are three major "disrupting" forces affecting law practice today; 1) liberalization (expansion of different types of legal service providers—beyond lawyers), 2) globalization, and 3) information technologies (the increasing power of computing).[15] By way of introduction, he recalls Wayne Gretzky's advice " to skate where the puck's going to be, not where it's been" and Susskind adds that "my purpose, then, is to show where that puck is likely to end up."[16] We agree—at least to the extent that the metaphor relates to teaching law students about how to understand what is happening at the intersection of law practice, the profession and technology.

A. Competence

Further evidence of the need for including technology as a part of any basic lawyering curriculum can be found in the recent changes by the American Bar Association to the definition of competence in Rule 1.1 of the Model Rules of Professional Conduct.

In August 2009, then ABA President Carolyn B. Lamm created a commission know as the Commission on Ethics 20/20.[17] The purpose of the commission was to investigate and report on the "ethical and regulatory challenges arising from the way technology and globalization have transformed the practice of law" in recent years.[18] The first set of recommendations was considered by the ABA House of Delegates at its August 2012 meeting. Among the recommendations that were adopted by the House of Delegates included adding a new comment, "Comment 8" to Rule 1.1 – the definition of "competence."

B. Maintaining Competence

[8] To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in

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14.   RICHARD E. SUSSKIND, TOMORROW'S LAWYERS: AN INTRODUCTION TO YOUR FUTURE (2012).

15.   *Id.* at 3.

16.   *Id.* at xviii.

17.   *See   ABA   Commission   on   Ethics   20/20,*   ABA, http://www.americanbar.org/groups/professional_responsibility/aba_commission_on_ethics_20 _20.html (last visited Apr. 29, 2013).

18.   *ABA   Commission   on   Ethics   20/20   Introduction   and   Overview,* ABA,http://www.americanbar.org/content/dam/aba/administrative/ethics_2020/20121112_et hics_20_20_overarching_report_final_with_disclaimer.authcheckdam.pdf.

continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject.19

We see the decision by the ABA House of Delegates to closely associate an understanding of the "risks and benefits associated with relevant technology" with the basic meaning of lawyer "competence" as an important step.20 But, it is only one step, and perhaps, a necessary first step. When taken within the broader context of the paradigm developed in our clinic, the requirement to "maintain the requisite knowledge and skill" in any aspect of lawyering, and competently representing clients, means that lawyers must learn a range of skills that are necessary to engage in competent contemporary practice. Chief among that set of contemporary skills is learning the continual process of knowledge management.

III. KNOWLEDGE MANAGEMENT

Knowledge management as an academic discipline, outside of the law, has been relatively well established for a few decades. Authors who have laid the theoretical foundation for the field include: Davenport and Prusak,21 Nonaka,22 Zeleny,23 and Dalkir.24 Of particular interest in the development of our curriculum has been the work of Michael Polanyi. His original work on personal knowledge is instructive as a place to begin to understand fundamental concepts involved with managing knowledge.25 Polanyi constructs a modern theory of

19.   MODEL RULES OF PROF'L CONDUCT R. 1.1, cmt. 8 (2012).

20.   In August 2012 the ABA also adopted changes to Model Rules of Prof'l Conduct R. 1.6 concerning client confidentiality and several other sections in response to changes in technology. *See* Sean Doherty, *ABA Adopts Ethics Policy on Lawyer's Use of Technology*, LAW TECHNOLOGY NEWS (Aug. 8, 2012),
http://www.law.com/jsp/lawtechnologynews/PubArticleLTN.jsp?id=1202566577730&ABA_Adopts_Ethics_Policy_on_Lawyers_Use_of_Technology&slreturn=20130215163214.

21.   *See generally* THOMAS H. DAVENPORT & LAURENCE PRUSAK, WORKING KNOWLEDGE:HOW ORGANIZATIONS MANAGE WHAT THEY KNOW (1998).

22.   *See generally* IKUJIR O NONAKA & HIROTAKA TAKEUCHI, THE KNOWLEDGE-CREATING COMPANY: HOW JAPANESE COMPANIES CREATE THE DYNAMICS OF INNOVATION (1995).

23.   *See generally* MILAN ZELENY & EBRARY INC., HUMAN SYSTEMS MANAGEMENT INTEGRATING KNOWLEDGE, MANAGEMENT AND SYSTEMS (2005); MILAN ZELENY, ADVANCES IN MULTIPLE CRITERIA DECISION MAKING AND HUMAN SYSTEMS MANAGEMENT: KNOWLEDGE AND WISDOM (Yong Shi et al eds., 2007).

24.   KIMIZ DALKIR, KNOWLEDGE MANAGEMENT IN THEORY AND PRACTICE (2005).

25.   *See generally* MICHAEL POLANYI, THE TACIT DIMENSION (1983); MICHAEL POLANYI, KNOWING AND BEING: ESSAYS BY MICHAEL POLANYI (Marjorie Grene ed., 1969); *see also*, THOMAS KUHN, THE STRUCTURE OF SCIENTIFIC REVOLUTIONS (1962). We intend to use the term "paradigm" in the same way as Kuhn has expressed in his work. Both Polyani and Kuhn wrote about the epistemology of science, but there is a debate about the extent that they actually agreed. *See* Martin X. Moleski, *Polanyi vs Kuhn: Worldviews Apart*, 33:2 TRADITION & DISCOVERY: THE POLANYI SOCIETY PERIODICAL 8, 9 (2006-2007).

knowledge and science that takes into account intuition and creativity, thereby adding a post-positivistic dimension to the western philosophical tradition.26 In considering the contributions of Polanyi to the philosophical foundation of knowledge management ("KM") the following observation has been made:

> We must step back and puzzle out the essential character of the KM discourse. One of its paradoxes is that KM is only separable from existing disciplines such as microeconomics and organization theory when it treats knowledge itself as problematic. It gets traction from admitting that we do not know what knowledge is, so demanding we think about the ways managers and organizations respond to these doubts. Our normal theorization especially in the positivistic tradition, regards knowledge as problematic only in its absence . . . We can argue Nonaka and Takeuchi effectively founded the field as a theory of the firm by drawing on Polanyi's notion of skills as valuable but non-explicable components of modern organizations.27

The concept of knowledge management derives its power and utility for lawyers from its ability to help us address a basic lawyering problem: how to make tacit knowledge explicit. Digital tools, such as matter management databases, document management systems, document assembly tools and expert systems (like the A2J application), help lawyers meet this fundamental challenge.28 In so doing, a great deal of potential can be realized.

IV. THE DIGITAL ADVANTAGE

Information expressed in any form can preserve knowledge, at the very least, at the tacit level. When information is expressed digitally it is capable of leveraging the "digital advantage."29 This advantage is realized because information in digital forms can be instantaneously stored, copied, organized, tagged, searched, transmitted, modified, quantified, annotated, linked etc. Using digital systems to address a legal problem involves, at its core, the potential of making tacit knowledge explicit. By utilizing the "digital advantage" lawyers can operationalize their legal knowledge in ways that were not hitherto possible to achieve client goals.

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26. J.C. Spender & Andreas G. Scherer, *The Philosophical Foundations of Knowledge Management: Editors' Introduction*, 14 ORG. 5, 5-28 (2007).

27. *Id.* at 11.

28. MARC LAURITSEN, THE LAWYER'S GUIDE TO WORKING SMARTER WITH KNOWLEDGE TOOLS (2010).

29. Phrase developed for use in the "Lawyering in the Digital Age Clinic."

Students in our clinic are taught to "start digital and stay digital."[30] For example, during a mock client interview that we conduct, as a part of our "gathering" unit, students are required to construct their interview plan and enter all notes regarding the client's responses to their questions on a laptop. We also recommend that they track the chronology portion of their interview using a timeline with Time Map software.[31] As a result, all of the information gathered from the interview becomes available to the student, her colleagues and supervisors as she engages in the subsequent lawyering tasks that flow from the initial gathering process such as counseling and drafting documents to effectuate the client's goals. Handwritten notes on legal pads to begin the simulation are not considered an acceptable lawyering practice because handwritten notes do not allow students to leverage the "digital advantage."[32] Notes written on paper work to keep knowledge locked in a tacit form (often obscuring full meaning even from the writer) and are rarely ever transferred into digital repositories in practice.

The subject of knowledge management has been applied to a wide range of business activities.[33] One area that has received a great deal of attention is the study of business organizations.[34] Knowledge management, however, has seldom been considered on a thoughtful (let alone theoretical) level in the context of law practice. Most legal knowledge management writings provide a wealth of practical advice about experiences with a variety of applications put to work on an enterprise level in a particular firm.[35] One possible exception to this statement is that knowledge management has been considered within the realm of "organizational theories" in the context of the organization of the "firm."[36]

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30.   Phrase developed for use in the "Lawyering in the Digtal Age Clinic."

31.   *LexisNexis TimeMap*, LEXISNEXIS, http://www.lexisnexis.com/casemap/timemap.aspx (last visited Apr. 29, 2013).

32.   More specifically, capturing and sharing one's interview plan and the notes from the interview is a necessary precursor to making tacit knowledge explicit.

33.   HARVARD BUSINESS REVIEW ON KNOWLEDGE MANAGEMENT (6th ed., 1998).

34.   *E.g.*, Jack A. Nickerson & Todd R. Zenger, *A Knowledge Based Theory of the Firm–the Prolem-Solving Perspective*, 15 ORG. SCI. 617 (2004).

35.   *E.g.*, GRETTA RUSANOW, KNOWLEDGE MANAGEMENT AND THE SMARTER LAWYER (2003); Chris Maiden, *The Quest for Knowledge Management: One Firm's Transformation*, 26 LAW PRAC. MGMT. 30 (2000).

36.   *See generally*, Erica Gorga & Michael Halberstam, *Knowledge Inputs, Legal Institutions and Firm Structure: Towards a Knowledge-Based Theory of the Firm*, 101 NW. U. L. REV. 1123 (2007).

V. KNOWLEDGE MANAGEMENT AND DECISION MAKING

In his influential article *Educating the Legal Practitioner*, Donald Schön[37] coined the term "knowing-in-action" to describe action with "knowledge built into it."[38] He credits Polanyi as the source of his concept.[39] He agrees with Polanyi's assertion that "most knowledge is tacit knowing"–"knowing-in-action"–and provides a modified expression "reflection-in-action"[40] that has been adopted by others in clinical teaching as a means to describe what legal practice is all about.[41]

The concept of "reflection-in-action," however, goes beyond simply possessing knowledge to include actual practice. This is the activity of making practical judgments or making decisions as a professional. Mark Neal Aaronson agrees with Schön, but he extends the idea to say that "practical judgment is the process by which we take into account relevant information and values, and then determine what ought to take priority in a particular context . . . [i]n any particular set of circumstances, exercises of judgment presume a mastery of certain relevant knowledge."[42] We see knowledge management applications like A2J as a practical and elegant means to promote the transfer of knowledge from tacit to explicit, thereby facilitating "reflection-in-action."

VI. CASE STUDY

In an effort to illustrate how we have applied knowledge management in the context of clinical work, we provide a brief description of an A2J project that created an automated answer to a non-payment eviction action in the New York City Housing Court. This A2J interview

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37. Donald A. Schön, *Educating the Reflective Practitioner*, 2 CLINICAL L. REV. 231, 242 (1995-1996).

38. *Id.*

39. *Id.*

40. *Id.* at 244.

41. STEFAN H. KRIEGER & RICHARD K. NEUMANN, ESSENTIAL LAWYERING SKILLS : INTERVIEWING, COUNSELING, NEGOTIATION, AND PERSUASIVE FACT ANALYSIS 8 (3d ed. 2007) ("Schön used the term 'reflection-in-action' to describe the process through which professionals unravel problems and solve them. This is not the kind of abstract and academic reflection that you went through when you wrote a term paper in college. Instead, it is a silent dialog between the professional and the problem to be solved."); *see also,* Richard K. Neumann Jr*., Donald Schön, the Reflective Practitioner, and the Comparative Failures of Legal Education*, 6 CLINICAL L. REV. 401 (1999-2000).

42. Mark Neal Aaronson, *We Ask You to Consider: Learning About Practical Judgment in Lawyering*, 4 CLINICAL L. REV. 247, 262-63 (1997-1998).

is linked from the New York Court web site43 and the LawHelp web site.44 At a more fundamental level, deploying this A2J interview was an effort to make the tacit knowledge of experts in housing law explicit through technology. In so doing, we began a process of sharing important expertise with an underserved population that could make use of this shared knowledge to prevent eviction.

A digital tool closely related to decision making is an "expert system."45 We consider the A2J platform to be an example of an expert system. It is very likely that the use of expert systems in law practice will expand in the coming years. As computers become more adept at "machine learning" and incorporate "artificial intelligence" features, expert systems will become much more powerful than they are today.46

A. Background

The New York City Housing Court is one of the busiest courts in the country. Each year approximately 300,000 residential actions for eviction are filed in the Housing Part of the New York City Civil Court.47 The vast majority of tenants, or "respondents" as they are referred to in summary eviction proceedings, are not represented by counsel. In order to respond to a non-payment petition and avoid entry of a default judgment and warrant of eviction unrepresented respondents traditionally go to the clerk's office in the Court to file an "oral answer." This transaction often is comprised of a clerk asking the question "why didn't you pay rent" and then marking a checkbox on a form that may loosely correspond to the defendant's response. It had been long rec-

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43. *Nonpayment Answer Program,* New York City Housing Court, http://www.nycourts.gov/courts/nyc/housing/int_nonpayment.shtml (last visited Apr. 29, 2013).

44. Law Help Interactive, https://lawhelpinteractive.org/login_form?template_id=template.2009-06-11.6300517756&set_language=en (last visited Apr. 29, 2013).

45. Richard E. Susskind, Expert Systems in Law: A Jurisprudential Inquiry 3 (1986). There are, of course, many varieties of expert systems. In our clinic, we have experimented with blogging platforms, learning management systems, word processing, inference engines, databases and passive websites as alternative ways to make the implicit explicit to address legal problems such as responding to 9/11, Superstorm Sandy, raising awareness about collateral consequences of criminal conviction and basic judicial education.

46. For examples of high level expert systems *see, e.g.*, Neota Logic, http://www.neotalogic.com (last visited Apr. 29, 2013); Kiiac, http://www.kiiac.com (last visited Apr. 29, 2013).

47. *New York City Housing Court*, NYCOURTS.GOV, http://www.courts.state.ny.us/COURTS/nyc/housing/welcome.shtml (last visited Apr. 29, 2013).

ognized by court administrators that this oral answer did not preserve or promote a tenant's rights in an adversary system to raise defenses or counterclaims. One Chief Administrative Judge of the New York Civil Court was determined to improve the oral answer process—Judge Fern Fisher, who held that position from 1994 until 2009.48 Judge Fisher had tried for several years to make an automated expert system available to the public. Her efforts included working with the Center for Court Innovation49 and other public interest advocates to develop interactive software that would result in an answer for *pro se* litigants. As it turned out, the early stage prototypes that were developed did not accurately reflect New York summary process law or function reliably.

Judge Fisher contacted our clinic to see if we could help. Two of the clinic's faculty members, Conrad Johnson and Mary Zulack, knew Judge Fisher from prior work as public interest attorneys in Harlem and had practiced extensively in Housing Court. And so began a multi-year collaboration to create a free, online mechanism that would allow unrepresented litigants to more fully utilize the substantive and procedural law to protect their rights.

B. Expertise

At the risk of stating the obvious, an essential part of creating an expert system is having experts available to contribute expertise. Judge Fisher is the co-author of one of the leading treatises on New York landlord tenant law.50 She was not going to allow any system that did not accurately reflect summary process—as she understood it—to be used by the general public or accepted within the court system. But, summary process law is complicated and not easily translated into a logical series of short questions and answers. As a starting point, we found that it was necessary for our students to both learn and "deconstruct" New York law as it applied in the landlord-tenant context. The process of thinking deliberately about the components of a legal prob-

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48. *See   Judicial   Directory,*   NEW   YORK   STATE   UNIFIED   COURT   SYSTEM, http://www.nycourtsystem.com/Applications/JudicialDirectory/Bio.php?ID=7023021   (last visited   Apr.   29,   2013);   *Profile,*   NEW   YORK   STATE   UNIFIED   COURT   SYSTEM, http://www.nycourts.gov/ip/nya2j/profile.shtml (last visited Apr. 29, 2013).

49. *See* CENTER FOR COURT INNOVATION, http://www.courtinnovation.org/ (last visited Apr. 29, 2013).

50. ANDREW SCHERER & FERN FISHER, RESIDENTIAL LANDLORD-TENANT LAW IN NEW YORK (2010).

lem or legal process can be seen as a basic part of managing knowledge. This is also known as "process management."[51]

The activity of deconstructing New York law took place in small conference rooms during early morning sessions with Judge Fisher (before she went to her office at the Civil Court). Judge Fisher met with student teams from the Clinic, and one or more of the clinic's faculty (most frequently Mary Zulack). Judge Fisher and clinic professors would engage students in a dialog about the structure of applicable landlord-tenant law. Students would diagram components of the law on a white board showing concepts with short questions and answers in a logical relationship. Following the meetings, students would translate these diagrams using Microsoft Visio.[52]

This was an intense, iterative process of taking knowledge in its tacit form from experts and making it explicit for students, and ultimately the public to understand. We found that expressing the concepts graphically and then manipulating them using the Visio software was the most effective way to accomplish this task. Of course, it was the Visio software that allowed a series of drafts to be created and analyzed asynchronously, and in person, over a period of many months.

At that point, the clinic was investigating software options for the expert system to be deployed. One candidate was the system that had been developed in California by the Legal Aid Society of Orange County in 2000 known as ICAN.[53] The program however was used primarily through kiosks and was not then available over the web. The software investigation process continued until June 2006, when Judge Fisher and Brian Donnelly attended a workshop organized by Ron Staudt and John Mayer at the Chicago-Kent College of Law, which introduced the A2J software.[54] Judge Fisher was interested in using the A2J program

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51. One example of a lawyer studying Process Management is John Murdock III, who has been collaborating with Nancy Lea Hyer, a Professor at Owen Graduate School of Management at Vanderbilt University. *See* LAW PRACTICE OPERATIONS, http://www.lawpracticeoperations.com/ (last visited Apr. 29, 2013); *see also* Debra Cassens Weiss, *Seyfarth Shaw Says Six Sigma Method Has Cut Client Fees by Up to 50%*, ABA J. (Sept., 14, 2009), http://www.abajournal.com/news/article/seyfarth_shaw_says_six_sigma_has_cut_client_fees_by_up_to_50_percent/. We are not advocating the Six Sigma approach to lawyering, simply pointing out that knowledge management requires a certain amount of process management.

52. *Microsoft Visio,* WIKIPEDIA, http://en.wikipedia.org/wiki/Microsoft_Visio (last visited Apr. 29, 2013).

53. *See* I-CAN! LEGAL, http://www.icandocs.org/ca/ (last visited Apr. 29, 2013); *see also About Us*, LEGAL AID SOCIETY OF ORANGE COUNTY AND COMMUNITY LEGAL SERVICES, http://www.legal-aid.com/Home/AboutUs (last visited Apr. 29, 2013).

54. *See generally* RONALD W. STAUDT, WHITE PAPER LEVERAGING LAW STUDENTS AND TECHNOLOGY TO MEET THE LEGAL NEEDS OF LOW INCOME PEOPLE (2007).

for the answer project. Students from the clinic were then tasked to enter the previously developed flow charts into the A2J author system. By the end of the next semester (Fall 2006), after only a few weeks of work, a functioning prototype was up and running.

It took a few more months of work on the part of people, both in the court system and the public interest advocate community, to vet, test, finalize and make the A2J application available to New York City residents.55 By 2009, three different interviews in the A2J program were available statewide.56

What may be instructive about our experience is that the process of capturing and transforming the tacit knowledge of our experts, Judge Fisher and the clinic professors, was indeed the most critical part of this project. We were extremely fortunate to have an expert with such a deep understanding of this area of the law to engage with. In the end, it was the development of the content for the A2J system that was the most challenging part of the process. In so doing, our students came to appreciate the power and potential of thoughtful knowledge management. It is a testament to the high level of engineering that was built into the A2J system that authoring a complex interview was a relatively painless process.

VII. Conclusion

As Marc Lauritsen points out "information technology is transforming law – as a social institution, and as a profession. To survive and prosper during that transformation you need to understand it."57 We accept the notion that "computers are not going to replace lawyers; lawyers who use computers effectively will replace lawyers who don't."58 We created a paradigm that provides a theoretical and peda-

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55.   Including Rochelle Klempner, now serving as Chief Counsel New York State Courts Access to Justice Program and Jeff Houge from Legal Assistance of Western New York.

56.   In 2009, the A2J pro se answer program was adopted statewide. *See* Kate Bladow, *Opening the Courts – Using Technology to Empower the Unrepresented*, GOV2.0 EXPO (Mar. 26, 2013), http://www.gov2expo.com/gov2expo2010/public/schedule/detail/11930; *see also* Fern A. Fisher & Rochelle Klempner, *Document Assembly Programs Best Practices for the Court System Development and Implementation Using A2J Author*, NEW YORK STATE COURTS ACCESS TO JUSTICE PROGRAM, (Apr. 2011),
http://www.nycourts.gov/ip/nya2j/pdfs/BestPractices_courtsystemdocument_assemblyprogra ms.pdf. The A2J *pro se* answer program has been used more than 13,000 times since 2008. *See generally 2012 Q4 LHI Content Statistics*, PROBONO.NET, (Apr. 11, 2013), http://www.probono.net/dasupport/library/item.464730-2012_Q4_LHI_Content_Statistics

57.   OLIVER GOODENOUGH & MARC LAURITSEN, EDUCATING THE DIGITAL LAWYER 2.10 (Oliver Goodenough & Marc Lauritsen eds. 2012).

58.   *Id.*

gogical structure for understanding this transformation. We have found that it is sufficiently flexible to withstand enormous changes in particular technologies and the profession over the last thirteen years.

Clinics provide an ideal setting for students to acquire skills that they will use for the rest of their professional careers. Providing students with a better understanding of technology and equipping students with skills in gathering, managing and presenting information seems not only useful, but a responsible way to discharge our duties as legal educators. We highlight knowledge management in this article, both as a theory and with a case study, to bring attention to the need for legal educators and lawyers to better understand this subject.

Clinics attempt to teach knowledge in action. We engage in the self-conscious transfer of expertise from the expert to the novice. Digital tools that involve students in this fundamental exercise provide students with a hands-on experience that is both vivid and undeniable. Students get a close up view of how knowledge management operates, what it takes to make the tacit explicit, and a real and useful example of the good that comes from learning this important skill of contemporary practice. The A2J application, as used in our case study, required students to gain a precise understanding of the substantive and procedural law, a practical appreciation of unmet legal needs, and the use of a digital mechanism to achieve—through technology—something that lawyers have been unable to achieve for those other than their immediate clients before the digital age.