

Rebooting the Approach to Teaching Research: Embracing the Computer Age*

Carrie W. Teitcher**

Professor Teitcher describes Brooklyn Law School's adoption of a fully integrated legal research curriculum. She argues that instruction acknowledging the realities of today's technology and computer culture engages students, enhances the credibility of teachers, and produces researchers willing and able to use the full range of research tools available to them.

¶1 Legal writing professors are typically on the front lines of research instruction.¹ We face the daunting task of convincing students trained in computers and accustomed to the instant gratification offered by the Internet² that books have an important role to play, that they have some sort of universal truth that computers simply do not have. At best, students go through the motions of doing the book

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** Assistant Professor of Legal Writing, Brooklyn Law School, Brooklyn, New York. The author wishes to acknowledge the support for this article provided by Dean Joan Wexler and the Brooklyn Law School Summer Research Program. She also wishes to acknowledge the support and encouragement of the director of Brooklyn's Writing Program, Marilyn R. Walter; Elizabeth Fajans, Associate Professor of Legal Writing and Brooklyn's Writing Specialist; Professor Linda Feldman, Director of the Academic Success Program; Professor Mollie Falk; Professor Eve Cary; Professor Sara Robbins, Law Librarian at Brooklyn Law School; Linda Holmes, Associate Law Librarian; Victoria Szymczak, Electronic Information Specialist and Adjunct Associate Professor of Law; and Adjunct Professor Joyce Adolfsen for their helpful comments and suggestions. Lastly, the author wishes to thank all members of Brooklyn's legal writing faculty for their support and friendship.

This article is dedicated to Sara Robbins, director of Brooklyn Law School's library for many years until her sudden and tragic death on December 13, 2006. Sara encouraged innovation and a dynamic approach to teaching legal research. She felt very strongly about the topic of this article and it was with her encouragement that I came to write it. Sara was a kind and wonderful colleague who poured her heart and soul into Brooklyn Law School's library. Her gracious and gentle nature touched us all. We will miss her.

1. The 2006 Association of Legal Writing Directors/Legal Writing Institute Survey shows that legal research is taught by any combination of law librarians, legal writing instructors, and teaching assistants. According to the survey, legal writing faculty are responsible for teaching research at 84 schools, librarians are responsible for teaching research at 43 schools, a combination of legal writing faculty and law librarians teach research at 55 schools, and teaching assistants and other students teach research at 25 schools. ASS'N OF LEGAL WRITING DIRECTORS/LEGAL WRITING INSTITUTE, 2006 SURVEY RESULTS 10 (2006), available at <http://www.alwd.org> (access ALWD/LWI Survey link). Of the schools surveyed, 149 reported that research instruction is integrated into the writing program and 53 reported that it is taught separately. *Id.*
2. Thomas Keefe, *Teaching Legal Research from the Inside Out*, 97 LAW LIBR. J. 117, 118, 2005 LAW LIBR. J. 6, ¶ 6 (citations omitted) (“[T]oday’s college freshmen are less aware of a ‘pre-Internet’ world than one in which the Net is central to their communication. . . . In short, the average student entering law school today has a much stronger foundation in finding information from the Internet or online databases than from traditional print sources like those we grew up using.”).

exercises we assign them, waiting for the day when they never have to open a book again. At worst, they tune us out, writing us off as relics from another time who are increasingly irrelevant in the Internet age. We try to convince them that they will become better researchers and analytical thinkers if they use books as part of their overall research strategy. It is apparent, however, that few students are listening. Students accustomed to online searching simply do not believe that books continue to be relevant. This is nothing new. From the earliest days of computer research instruction, students have been singing the praises of computers over books.³

¶2 In the past few years, there has been a sea change in computer-assisted legal research (CALR). The Internet has exploded onto the scene, offering a host of free legal research resources.⁴ Our students are computer literate⁵ and frequently familiar with LexisNexis before they get to law school. With their ubiquitous laptops, students can go online anywhere at anytime. As computer technology and resources have changed over the years, Brooklyn Law School's approach to teaching legal research has changed as well.⁶

¶3 In fall 2005, Brooklyn Law School's Writing Program⁷ significantly changed its approach to legal research instruction and entered a new era.⁸ To make

3. See Marilyn W. Walter, *Retaking Control Over Teaching Research*, 43 J. LEGAL EDUC. 569, 569 (1993) ("Students come to law school eager to learn how to use LEXIS and WESTLAW, though not particularly eager to learn how to do research with books. They believe computers can do everything books can do, only better and faster. They are fearless in using computers, though they may be inept.").
4. For example, in addition to offering primary source materials like federal and state court opinions, the Internet offers new sources like law firm newsletters and practitioners' guides that provide some useful background sources to get researchers up to speed. "This critical source of information did not exist as recently as five years ago." Keefe, *supra* note 2, at 129, ¶ 45.
5. Walter, *supra* note 3, at 579 ("[Students] are familiar with computers long before they arrive at law school.").
6. This article briefly reviews the growth of CALR at Brooklyn. The detailed history of Brooklyn's CALR instruction will not be reviewed here as it has been described by Brooklyn's Director of Legal Writing, Marilyn Walter, in a 1993 article in which she advocated the need to "take back" CALR instruction from the LexisNexis and Westlaw vendors to ensure a comprehensive, integrated approach to teaching research. Walter, *supra* note 3. Several years after that article was written, with the rapid changes to the Westlaw and LexisNexis interface stemming from their software-based changes, followed by their emergence as Web-based services, CALR at Brooklyn instruction was once again taught by the vendors but under the supervision of Brooklyn's legal writing faculty. Prior to the adoption of the changes discussed here, CALR was taught in two ninety-minute sessions (one for Westlaw and one for LexisNexis) after students were taught traditional research by the writing faculty. This article does not address the merits of vendor versus legal writing professor instruction. Instead, it focuses on the content and timing of that instruction.
7. At Brooklyn Law School, first-year students are taught legal research by the legal writing faculty. The first-year program introduces students to computerized legal instruction, primary and secondary sources, finding tools, citators, and citation form. An advanced legal research course taught by the librarians is offered to upper class students. The advanced course covers state and federal legislative history, administrative law sources, news and business sources, advanced computerized legal research instruction, and an introduction to international and foreign law research.
8. While the writing faculty has been talking about making a change for quite some time, the catalyst for change arose out of the Future of Legal Research Conference held at Chicago Kent Law School in May 2005. I would like to thank Dean Joan Wexler for sponsoring my attendance at the conference. In addition, I would like to thank my fellow legal writing colleagues who attended the conference, particularly Laurel C. Oates, for inspiring the changes described here.

our research lessons more effective and relevant to our students, we opted for a fully integrated approach in which we emphasized the importance of combining books, fee-based legal research systems, and free Internet sources into a comprehensive research strategy. These changes acknowledge the realities of the computer age,⁹ the workplace,¹⁰ and our students' own research experiences that are steeped in the Internet and computers.¹¹ With this approach, we hope to make our students more discerning "consumers" of legal research and, ultimately, better analytical thinkers. We expect that students will fully embrace all available tools while taking maximum advantage of all that today's computer technology has to offer legal research instruction.

¶4 In this article, I first describe the growth of computer research technology at Brooklyn, some of the efforts we took to try to engage the students in traditional book research, and why we needed to make this latest change to the way we teach legal research. I then describe the changes we made to our legal research curriculum. My conclusion is that integrated legal instruction that acknowledges the realities of today's technology and computer culture engages our students, enhances our credibility as teachers, and, most importantly, produces willing and capable researchers who will consider all available resources ranging from books, to fee-based computer research tools, to the Internet and its vast collection of free resources.

The Growth of Computer Research Technology at Brooklyn

The Early Years

¶5 At the time the writing program at Brooklyn began in 1980, law schools were just entering the computer age. LexisNexis was in its early years, having introduced its service to university law libraries in 1975.¹² In 1979, Brooklyn installed a single LexisNexis "Ubiq"¹³ terminal on the first floor of the library and students signed up for half-hour research sessions. West was a little late to the game and its initial system "was primitive indeed"¹⁴ but soon rectified its early problems and

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9. Thomas Keefe, *Teaching Taxonomies*, 14 PERSPECTIVES: TEACHING LEGAL RES. & WRITING 153, 156 (2006) ("We now find ourselves attempting to teach traditional sources and techniques to students who have been raised entirely on computers. We must recognize this reality and adjust our teaching to account for it.").
 10. Thomas Keefe, *supra* note 2, at 123, ¶ 22 ("The truth of the matter is that today the vast majority of research by attorneys is conducted online using electronic databases and the Internet.").
 11. *Id.* at 118, ¶ 6 ("In short, the average student entering law school today has a much stronger foundation in finding information from the Internet or online databases than from traditional print sources like those we grew up using.").
 12. LexisNexis, *The LexisNexis Timeline 3* (2003), http://www.lexisnexis.com/anniversary/30th_timeline_fulltxt.pdf.
 13. The Ubiq terminal was a red terminal that had an automatic dial feature and function keys "so attorneys who can't type can issue commands to the service with one keystroke." *Id.*
 14. William G. Harrington, *A Brief History of Computer-Assisted Legal Research*, 77 LAW. LIBR. J. 543, 553 (1985).

became a “sophisticated, user-friendly research service.”¹⁵ By 1982, it introduced its dedicated WALT¹⁶ terminals, and Brooklyn was online with both vendors. At that time, CALR instruction was conducted early in the spring semester.¹⁷

¶6 The 1980s saw an increase in the number of designated terminals at Brooklyn, which by then had labs for both Westlaw and LexisNexis with ten computers apiece. By 1986, CALR instruction was moved to the end of the fall semester.¹⁸ Rapid changes to CALR technology and methodology soon followed. A dramatic shift to computer use occurred with the distribution of free, unlimited use Westlaw and LexisNexis passwords.¹⁹ In 1989, software packages for CALR access were distributed to students to load onto their home computers. Since most students did not have personal computers at that time, students still did much of their computer research in the library. However, with the increasing popularity of home computers, software access took off in the 1992–93 academic year, thereby freeing students to do their research from the comfort of their own homes at any time of the day or night.²⁰ At around the same time, the LexisNexis and WALT terminals were replaced by PCs pre-loaded with CALR software.²¹

¶7 But while computers were making their inroads into law school culture, the legal research curriculum at law schools had stagnated. Professors of legal research schooled in traditional methodologies were, understandably, slow to change their pedagogy. But given the availability of this new technology and the ease with which students embraced it, it became clear to those teaching the next generation of lawyers that instruction in legal research needed to change.

¶8 In 1991, after different approaches to CALR instruction at Brooklyn were tried and rejected,²² we started to teach Westlaw and LexisNexis in the fall²³ after students received several weeks of instruction in traditional sources but before stu-

15. *Id.* at 554.

16. “WALT” refers to “West Automated Law Terminal.” *Id.*

17. E-mail from Linda Holmes, Associate Law Librarian, Brooklyn Law School, to author (July 19, 2006) (copy on file with author).

18. *Id.*

19. Walter, *supra* note 3, at 581.

20. E-mail from Bill Benish, Director of Account Management, Westlaw, to Linda Holmes, Associate Law Librarian, Brooklyn Law School (May 31, 2006) (copy on file with author).

21. *Id.*

22. Walter, *supra* note 3, at 584 n.91.

23. *Id.*

dents were assigned their open universe memorandum assignment.²⁴ This assignment, which was the last of the fall semester, was crafted to allow students to use any research sources they wished. The library staff distributed computer passwords after the writing faculty completed teaching traditional research in the hope that if students did not have access to the computers they would become better at traditional book research.

¶9 Once CALR became Web-based in 1998, the need to once again re-evaluate our approach to teaching research became apparent. With the availability of Westlaw and LexisNexis on the Web, students were liberated from their home computers and could do their research anywhere, anytime, and on any computer. There was no longer any reason for the students to go to a library to do their research.²⁵ With the advent of wireless technology and their ever-present laptops, students were no longer tethered to a desk. Given the choice between hunting down a hornbook, treatise, print digest, or code in the library and using their computers, students understandably opted for the comfort of their own homes, the cafeteria, or even the local coffee shop to do their research.

¶10 While students were drawn to the computers, their research skills did not necessarily improve.²⁶ Students were becoming “finders” (of something), but they were increasingly less discriminating at evaluating what they found. With a click of a mouse, students started to “find and print” with abandon. (“Yes, I did the

24. Brooklyn’s first-year writing course has always been, and continues to be, a two-semester course in which objective writing and legal research are taught in the fall semester and advocacy and client letter writing are taught in the spring semester. In the fall, the first writing assignment, a closed universe ungraded office memorandum, is assigned in the third week of the semester. After conferences with their legal writing professors, students rewrite the memorandum. Before the changes described here were made, legal research was taught in a four-week block following their first conference. At that time, students were taught traditional (book) research sources and were then given a research quiz worth 10% of their grade for the course. A week after the research quiz, students attended a ninety-minute session in Westlaw instruction, followed by another ninety-minute session in LexisNexis. The students then returned to writing and were assigned a more complex closed universe office memorandum worth 40% of their grade for the course. The semester ended with students writing their final open universe office memorandum, worth 50%, for which they did their own research.

25. Computer-assisted legal research has fostered a significant change to the way researchers use the library. F. Allan Hanson, *From Key Numbers to Keywords: How Automation Has Transformed the Law*, 94 LAW LIBR. J. 563, 576, 2002 LAW LIBR. J. 36, ¶ 37. No longer the nerve center for legal research, law firm libraries are becoming increasingly deserted. *Id.* “The major reason for these changes is that researchers can now find and download full texts of virtually everything they need with their desktop computers. . . . With LexisNexis, Westlaw, and the Internet it has become possible to do in minutes what previously required hours of tedious work. As a result, academic and firm libraries are acquiring fewer new print resources and shedding some they already have. . . .” *Id.* at 576, ¶ 38.

26. Keefe, *supra* note 2, at 122, ¶ 19.

research. Here are all my printouts. No, I did not read them yet.”²⁷ In short, we observed that they were becoming poorer “thinkers.”²⁸

¶11 The Internet juggernaut (fueled in large part by the Google search engine) and improvements to computerized research proved to be too powerful. By the late 1990s, the Internet had opened the doors to legal research to anyone with a computer modem. With its increasing number of free sources, the Internet’s potential in providing a wealth of primary and secondary sources became limitless.²⁹ With all these exciting possibilities, it became virtually impossible to convince students of the need for and efficacy of books.

The Legal Research Quiz

¶12 Convinced that books continue to play an important role in fostering thoughtful legal analysis, our legal writing professors continued to emphasize traditional research tools. But the lure of computers demanded more creative solutions to keep the students engaged in our lectures and assignments. To that end, in 1996, Brooklyn’s Writing Program developed and administered a “Legal Research Quiz” worth 10% of the fall semester grade. We administered the quiz after students were taught traditional research tools but before they were given CALR instruction. Using a combination of multiple choice, fill-ins, and short essays, the quiz tested students on the basics of research, including court hierarchy, primary and secondary sources, finding tools, citators, and research strategies. We hoped that our students would be more interested in our research classes on traditional sources if they knew they were going to be tested before they began CALR instruction.³⁰

27. Students will amass a tremendous amount of information “without any real connection to it.” Richard Haigh, *What Shall I Wear to the Computer Revolution? Some Thoughts on Electronic Researching in Law*, 89 LAW LIBR. J. 245, 249 (1997). The many problems with over-reliance on computer-assisted legal research have been acknowledged. See, e.g., Lee F. Peoples, *The Death of the Digest and the Pitfalls of Electronic Research: What is the Modern Legal Researcher to Do?* 97 LAW LIBR. J. 661, 676, 2005 LAW LIBR. J. 41, ¶ 39 (“researchers using electronic resources often stop researching too soon”); Walter, *supra* note 3, at 579 (They become overconfident in the completeness of their search results and “the false sense of security which CALR can bring is most dangerous.”); see also Paul Hellyer, *Assessing the Influence of Computer-Assisted Legal Research: A Study of California Supreme Court Opinions*, 97 LAW LIBR. J. 285, 289, 2005 LAW LIBR. J. 16, ¶ 12 (“[O]ne of the most serious drawbacks of full-text searching is that it requires the researcher to guess the terms used in the relevant documents.”).
28. Keefe, *supra* note 2, at 122, ¶ 20 (“Today’s online research tools may be popular because they are easier to use, but they may be less effective in that they encourage researchers to proceed without thinking.”) One author noted that the ability to access information with great speed and ease has fostered “‘law-byte reasoning’ and hypertext analysis.” Molly Warner Lien, *Technocentrism and the Soul of the Common Law Lawyer*, 48 AM. U. L. REV. 48, 88–89 (1998). The result is analysis that is less thoughtful. “Lawyers and law students using ‘law-bytes’ inevitably pay less attention to the reasoning, theory and policy that drive a decision, and give less consideration to the justness of the result.” *Id.* at 89.
29. See Alvin M. Podboy, *The Shifting Sands of Legal Research: Power to the People*, 31 TEX. TECH. L. REV. 1167, 1174 (2000).
30. To protect the integrity of the quiz and to ensure that all students were being tested on the same material, the entire first-year day class took the quiz at the same time. Full-time day students took the quiz at 4 P.M. and evening students took the quiz at 6 P.M. the same evening. The quiz was given under the same conditions as traditional final exams.

¶13 Not surprisingly, the writing faculty reported that student interest in the subject matter improved and that more students were engaged in class discussion. In addition, students who were weak writers but good test takers did well, thus giving them much-needed encouragement and an opportunity to shine. It looked as though we had hit upon a formula that worked. But there was a price to pay. First, the scheduling of the quiz interfered with the timing of the first graded writing assignment of the semester.³¹ This created an enormous amount of anxiety among students, despite our best efforts to calm them. Second, the quiz created a cottage industry of review sessions offered by various student groups over which we had little control. Students thought we were testing citation form and started referring to the quiz as a “Bluebook exam.”³² Despite our efforts to the contrary, there was a certain amount of misinformation circulating about the quiz, fueling further anxiety. Thus, while the quiz increased the level of engagement in the classroom, it also increased the level of anxiety among the first-year students.

Distribution of Limited Computer Passwords

¶14 Another way we tried to encourage students to use print resources was by controlling the timing and use of computer passwords. We thought that if students could use passwords for limited tasks, they would learn to rely more on the books and less on their computers. Thus, we distributed computer passwords after students took the research quiz. We hoped that the delay would encourage them to absorb what we had to say about traditional sources before they were let loose online.

¶15 Besides the obvious problem of creating a strong desire for “forbidden fruit” and the perception that we were hiding something or delaying the inevitable, other circumstances made this solution impractical. The first occurred when some members of the legal writing faculty developed their own Web courses using Westlaw’s TWEN product or Blackboard’s Web Course in a Box available on LexisNexis. To access these Web courses, students needed Westlaw or LexisNexis passwords. By delaying the distribution of passwords, we were locking students out of their Web courses.³³ The second unanticipated problem occurred when our library discontinued carrying print *Shepard’s*, making it no longer practical to teach the use of print citators to our students. This gave us the impetus we needed to discontinue teaching print *Shepard’s*, something we had been considering for several years but were reluctant to do. Thus, we took our first step at integrating computer and traditional sources when we decided to incorporate KeyCite and electronic *Shepard’s* into our regular research lessons but before we began CALR. This too required a password.

31. This assignment, requiring that students write an office memorandum using five preselected cases, was distributed in the middle of October and overlapped with the time in which students studied for the research quiz.

32. In fact, only 10% of the quiz tested *Bluebook* citation form.

33. “The growth of Web courses sponsored by LexisNexis and Westlaw has made it necessary for students to have passwords from the first day.” Keefe, *supra* note 2, at 125, ¶ 30.

¶16 To address these needs, we gave our students limited-access passwords during orientation week. This enabled students to access their Web courses and electronic citators, but not the full range of resources available on Westlaw and LexisNexis. By limiting access, we could encourage students to turn to books before discovering the full range of electronic resources.

¶17 Or so we thought. A good number of students were getting past the “no-fly zone” of passwords and beating the system. Some had their own passwords from their employers and others knew upper-class students or relatives who happily shared theirs.³⁴ It soon became clear that limited passwords offered limited control and were hardly effective in trying to convince students that books continue to be relevant.³⁵

The Need for a Change

¶18 By 2001, it became clear that unless we forced students to do research exercises in print sources, books would be relegated to the dustbins as artifacts of another time. While our legal writing faculty continued to extol the virtues of and need for books,³⁶ such pleas fell on deaf ears. If we were lucky, by the end of the year, after students had tackled their more complex moot court problem, some came to understand the benefits of using traditional sources, particularly to gain background information or a more sophisticated understanding of a subject area.³⁷ But for the most part, students had no interest in hearing about books because they believed that “computers do it all anyway.” As professors of legal research, members of the writing faculty were looking more and more like dinosaurs every day.

¶19 When we could not convince our students that books were useful, we tried to point out CALR’s shortcomings. We told our students that while computers had

34. *Id.* (“[A]bandoning the print-first model would avoid the prevalent problem of students’ borrowing second- and third-year students’ passwords to get around print-only requirements.”).

35. Sometimes forces beyond our control conspired against us as well. One year one of the vendors mistakenly distributed full-access passwords during orientation week when the writing faculty thought they were limited. This came to our attention well after our traditional research sessions.

36. We made some of the usual arguments in favor of book research: small law firms have limited computer resources, books organize the materials with indexes in a way that computers do not, books give the necessary background to understand a subject area so that students learn the operative terms resulting in more efficient searching on CALR, computers are expensive—books are cheaper, students have to learn books because computers may crash, clients do not want to pay for computers when a young associate could do a simple research task in a book, students can curl up with a book, etc., etc. My own efforts at trying to convince students of the correctness of this approach hit a new low when our computer server was destroyed on September 11, 2001, after the attack on the World Trade Center in lower Manhattan. (Brooklyn’s computer server was housed in 7 World Trade Center which collapsed shortly after the Twin Towers collapsed.) I remember, much to my own embarrassment, several weeks later trying to convince my students that they should learn how to use books because “as you saw on 9/11, you never know when or why your computers might crash and you will need to look at a book.”

37. Walter, *supra* note 3, at 588.

revolutionized legal research, CALR had its limitations.³⁸ We put forth many of the typical cautionary tales: CALR tends to breed overconfidence in the accuracy and completeness of results, an overconfidence stemming from the perception among researchers that computers are all-knowing even if the researcher has limitations;³⁹ researchers tend to stop researching too early in the process;⁴⁰ not all sources are available online;⁴¹ viewing and printing documents can be difficult; CALR does not search concepts and, therefore, researchers might overlook significant authority if they type terms that the courts do not specifically use.⁴² But our students simply did not believe us, at least not until some real world experience opened their eyes. They tended to be skeptical of nay-sayers from a different generation. It became clear that until we spoke their language, students would continue to regard these warnings with a healthy degree of skepticism and a “prove it to me” attitude.

¶20 In truth, with the explosion of the Internet and the Google search engine,⁴³ some of these arguments just do not ring true anymore. For example, as the cost of maintaining a traditional library has gone up, CALR has gotten cheaper.⁴⁴ The Internet now offers many free reliable sources and is expanding every day. Our own library is relying more heavily on electronic databases and is cutting back on traditional resources.⁴⁵ Westlaw and LexisNexis have improved their searching capabilities by adding indexes and tables of contents to many of their databases so that students can now browse an index as they would in a book. LexisNexis “has very nearly completed its own indexing and abstracting service to rival West’s digest system.”⁴⁶ In addition, computer-generated materials are becoming more user friendly. Students can download cases in PDF format on Westlaw making the cases easier to view and print.⁴⁷ Older and new law review articles previously

38. See Ian Gallacher, *The Hitchhiker’s Guide to Teaching Legal Research to the Google Generation*, 39 AKRON L. REV. 151, 183–89 (2006).

39. Hellyer, *supra* note 28, at 289, ¶ 12; Walter, *supra* note 3, at 579.

40. Peoples, *supra* note 28, at 676, ¶ 39.

41. Thaddeus J. Holynski, *Legal Research on the World Wide Web*, 52 SYRACUSE L. REV. 1141, 1143 (2002).

42. Walter, *supra* note 3, at 578; Robert C. Berring, *Full-Text Databases and Legal Research: Backing into the Future*, 1 HIGH TECH. L.J. 27, 48 (1986) (footnote omitted) (“The fact is that law involves ideas, and ideas are not directly correlated with particular words.”).

43. Up until we adopted the fully integrated approach described in this article, the Internet as a research source was not discussed in the first-year research classes but was addressed in advanced research courses taught by the librarians to upper-class students.

44. Gallacher, *supra* note 38, at 193–95.

45. As of the date of this article, the library has discontinued receiving hard copy *Shepard’s Citations* for regional reporters, individual states, and specialized subject areas (e.g., labor law). It has also reduced the number of copies of reporters as it no longer supplies them for the law review or clinic libraries. Due to ABA/AALS library requirements, it still receives many titles that are not being used by the students (e.g., reporters, digests, periodical indexes, law reviews, ALR) who typically opt for their online versions. E-mail from Linda Holmes, Associate Law Librarian, Brooklyn Law School, to author (May 31, 2006) (copy on file with author).

46. Keefe, *supra* note 9, at 154.

47. Peoples, *supra* note 27, at 676, ¶ 37.

unavailable online are now viewable in PDF format on HeinOnline, a commercial Web-based resource available through many law schools' libraries.⁴⁸ Thus, while some problems with computer research continue to exist,⁴⁹ they are fewer and less significant.

¶21 My own personal "ah-ha" moment occurred when I was trying to teach the *Index to Legal Periodicals* and *Current Law Index* to my students. As I had done in past years, I reminded students to think back to when they did research using the equivalent *Reader's Guide to Periodical Literature* when they were undergraduates. I found myself looking at a sea of blank faces and it occurred to me that they had no idea what I was talking about. Sure enough, when I asked how many students had used the *Reader's Guide to Periodicals*, no one responded. I then realized that we were speaking different languages and my feeble attempt to use what I thought was a familiar frame of reference fell flat.⁵⁰ It became clear to me that my credibility as a teacher was at stake. We were no longer relevant to our students and we needed to make a change.⁵¹

Adopting a Fully Integrated Approach to Teaching Legal Research

¶22 To make that change, the legal writing faculty agreed to adopt an integrated approach to teaching legal research. A fully integrated approach should cover all the steps students need to take to strategize, research, synthesize, and, ultimately, present their analysis. Rather than focus on the mechanics of how a particular research tool works, classes on legal research instruction should address strategy.⁵² Students need to learn that print resources are more efficient for some tasks, elec-

48. *Id.*

49. *Id.* Despite improvements to CALR, problems continue to persist. For example, searches that focus on general concepts are still difficult and students have a hard time understanding context. Nevertheless, such obstacles need not stand in the way of a fully integrated approach to teaching legal research. Indeed, such problems demand that students understand the need for and efficacy of a fully integrated approach that recognizes the strengths and weaknesses of all research tools.

50. Apparently, I am not the only one to reach this conclusion. "Working on a model where legal encyclopedias are an extension of the encyclopedias [students] used in college or the *Index to Legal Periodicals* is an extension of the *Reader's Guide to Periodical Literature* has lost much of its relevance because students no longer have exposure to the print sources underlying this model." Keefe, *supra* note 2, at 124, ¶ 27.

51. Legal research is but one area of our students' lives that has been changed by computers. Increasingly, computers have become an integral part of much of what they do on a daily basis. See generally AMAND LENHART, MARY MADDEN & PAUL HITLIN, TEENS AND TECHNOLOGY: YOUTH ARE LEADING THE TRANSITION TO A FULLY WIRED AND MOBILE NATION (July 27, 2005), http://www.pewinternet.org/pdfs/PIP_Teens_Tech_July2005web.pdf.

52. Theodore A. Potter, *A New Twist on an Old Plot: Legal Research is a Strategy, Not a Format*, 92 LAW LIBR. J. 287, 290, 2000 LAW LIBR. J. 25, ¶ 10 (2000) ("It's up to us to make the students more conscious of the effort we expect in terms of quality of reasoning and analysis. We do care that they use print sources, and we need to continue to teach print materials where it is logical and necessary. However, the focus should not be on format, but on good research strategy.").

tronic sources for others, and that each has an important role to play.⁵³ Moreover, in some cases it no longer matters whether the students get the information they need from the computer or the books so long as they can critically evaluate what they find. Class instruction should focus on why and when one would use a particular research tool and what its strengths and weaknesses are. Ultimately, we should teach students how to synthesize and analyze their research results—teaching research necessarily means teaching legal analysis.

¶23 It is axiomatic that today's students have basic computer skills.⁵⁴ While students need to learn the mechanics of using a source, we should spend more time focusing on its usefulness, coverage, and limitations. In addition, if we learned anything these past few years, it is that technology changes rapidly and that our students are technological chameleons. They adapt to the needs of the computer world. Today's popular tools can become tomorrow's "remember when." One never knows what is on the horizon and students, as they always do, will learn to adapt to different technologies. Thus, we need not spend too much valuable class time teaching our students how to use a particular technology—they can and will figure it out. Instead, we should help them understand what to do if they do not know anything about an area of law they are researching, what to do if they know their particular problem involves a federal statute, what to do if their problem is not governed by statute or regulation, and so on.⁵⁵

¶24 In short, we must turn our expert "finders" into "thinkers." Ultimately, we must teach them what to do with the masses of information they find. Teaching legal research necessarily involves teaching synthesis and legal analysis and goes far beyond knowing how to use a digest or the Internet. The tools will continue to change but the need for thoughtful analysis is a constant. Understanding this frees the professor of legal writing and research from the constraints of the research tools themselves. Once researchers recognize that all tools are useful yet limited, they can then turn to the task at hand: to critically assess and analyze search results (no matter how they are found).

¶25 With this in mind, in fall 2005, Brooklyn made several changes to its research instruction. We eliminated the bifurcated approach to teaching books and computers, and adopted a fully integrated model that included the discussion of free Internet resources. Accordingly, we overhauled our instruction in Westlaw and LexisNexis, moving it from one ninety-minute session for each provider held in the eleventh week of the fall semester to three forty-five minute sessions for each provider beginning the very first week of the semester.

53. Barbara Bintliff, *Electronic Resources or Print Resources: Some Observations on Where to Search*, 14 PERSPECTIVES: TEACHING LEGAL RES. & WRITING 23, 24 (2005).

54. Those who do not can be brought up to speed with individual tutorials conducted either by the library staff or the law school's IT department.

55. This is the approach adopted in LAUREL C. OATES & ANNE ENQUIST, *JUST RESEARCH* (2005), a new research text.

¶26 In addition, using the TWEN Web course resource available on Westlaw, we developed a “First Year Legal Writing and Research Support” page for the entire first-year class. This allowed us to address another problem with our approach to research instruction. While all members of Brooklyn’s writing faculty followed the same curriculum in the research classes, students perceived an unevenness among the classes, particularly between the day and evening classes. This became especially problematic while students were studying and preparing for the research quiz. It became clear that we needed to do something to assure students that they were all working with the same information. The Web page was developed to address that issue.

Teaching an Integrated Curriculum

¶27 During the orientation week for the fall 2005 semester, some members of the legal writing faculty taught the first-year students an “Introduction to the Study of Law” course that introduced them to the fundamental characteristics of the American legal system, development of precedent, and interpretation of statutes. In addition, until the fall 2005 semester, the library staff conducted library tours during orientation week. We decided to dispense with the tours⁵⁶ and instead gave the students their first CALR lesson. Students were given full-access passwords and the first of three forty-five minute CALR lessons was held that week.

¶28 The first CALR session⁵⁷ covered basic introductory skills, including how to log on; how to find cases using citations; how to determine if a case is still good law by checking the “Direct History” of the case; and how and when to print, download, or e-mail a document. Students were also told to avoid being quick with the trigger finger when it came to printing and to think of the cost both to their prospective employers and to the world’s forests if they printed indiscriminately.

¶29 At this point in the semester, students were receptive and eager learners. They were not overwhelmed with work and they were still excited by the novelty of law school. In short, they had not yet picked up poor research habits and were not yet jaded. As a result, they were receptive to warnings about CALR’s limitations. In addition, with full-access passwords, students were encouraged to freely navigate Westlaw and LexisNexis on their own and not wait until their next CALR session (which would occur in the sixth week of the semester). Thus, we eliminated the “forbidden fruit” syndrome and the impression that we were keeping CALR under wraps. Instead of skepticism greeting our warnings about the computers’ limitations, students became more open to what we had to say. They seemed much more willing to listen.

56. The library staff was never satisfied with the effectiveness of these tours and happily gave them up.

57. All CALR sessions were taught by the Westlaw and LexisNexis representatives. Groups of twenty students met with each provider for forty-five minutes. For example, a group met with the Westlaw representative on Tuesday and then met with the Lexis representative on Thursday. Another group first met with the LexisNexis representative and then later met with the Westlaw representative. This ensured that both Westlaw and LexisNexis were given equal time, with no one vendor seemingly preferred over the other.

¶30 After orientation week, the writing class officially began. We began with the writing segment of the course during which students wrote their first closed universe memorandum, had a conference with their professor, and rewrote their first memorandum. Neither the first draft of the memorandum nor the rewrite are graded. The research segment of the course began in the sixth week of the semester, after students had their conferences on their first memorandum.

¶31 While each professor was free to create his or her own materials, all writing professors began teaching research by discussing the hierarchy of authority, primary and secondary sources, binding and persuasive authority, and when and how to use secondary sources.⁵⁸ Later that same week, students met with the vendors for their second session of computer instruction. The students were taught how to get useful background information (secondary sources), how to use tables of contents and indexes for those sources, and how to search secondary sources using natural language and terms and connectors.

¶32 The following week, students received instruction in statutory research, case law, and citators. Once again, they first met with their writing professor who covered the basics of statutory and common law research in class. Later that week, students met with the Westlaw and LexisNexis vendors for their third, and last, computer session. The vendors reviewed digest tools, codes, and online citators.

¶33 A fully integrated approach to teaching legal research must necessarily include a discussion of the Internet. Free Internet sources are playing an increasingly important role in legal research, and employers expect students to use them. And students turn to the Internet for many of their daily tasks, research being just one. They register for courses, pay their bills, get their news, talk to their friends, order books, purchase theater tickets, watch movies, and listen to music online. The increased availability of reliable research sources online demands that we teach our students how to navigate the Internet efficiently and how to distinguish between reliable and unreliable sources.

¶34 Traditional research sources are organized around topic headings and indexes and are “typically presented in a linear form” with a beginning, a middle, and an end.⁵⁹ In contrast, the Internet and hypertext foster a search technique that is “fluid, multidirectional, and interactive.”⁶⁰ Rather than follow the linear path demanded of traditional sources, students are drawn to jumping from one concept to another as they hypertext their way through the vast array of information available on the Internet. Without the hierarchical structure of books,⁶¹ students

58. Having used AMY E. SLOAN, *BASIC LEGAL RESEARCH: TOOLS AND STRATEGIES* (3d ed. 2005) as a legal research text for several years, we decided to continue doing so for two reasons. First, our writing faculty was already familiar and comfortable with its approach, and second, it provides a balanced approach to both print and computer resources.

59. Rogelio Lasso, *From the Paper Chase to the Digital Chase: Technology and the Challenge of Teaching 21st Century Law Students*, 43 SANTA CLARA L. REV. 1, 8 (2002).

60. *Id.*

61. Hanson, *supra* note 25, at 574, ¶ 32 (“[T]he taxonomic classifications built into print research tools promote a view of the law as a hierarchically organized system based on general principles.”).

cannot see the larger picture and understand the overall context of what they are searching for. Thus, without a clear understanding of the law, their Internet search results are necessarily limited. In addition, while the Internet is a powerful tool, not all search results are equally valuable. Students need to learn to distinguish between reliable and suspect results. Thus, we encouraged our students to search the Internet for useful background information to help them get started with their research but emphasized that they should not use it as their primary research tool. Taken together with other tools such as books, Westlaw, and LexisNexis, however, the Internet can be a powerful resource.

¶35 Thus, in fall 2005, we incorporated Internet searching into our class instruction. By doing so, we tapped into our students' natural inclination to Google almost everything. Some class time was spent discussing the advanced search function on Google, showing how students can limit their searches to authoritative Web sites, and discussing the need to discern between "hits" that are reliable and those they should avoid. Depending on the particular writing professor's comfort level, some writing faculty incorporated CALR instruction into their class materials while others left it to the vendors to do so.

¶36 In my own class,⁶² I used Powerpoint presentations⁶³ to introduce students to the fundamentals of legal research. To keep the students engaged, I varied my animations and included some graphics. With the increasing availability of digital photos of research materials,⁶⁴ I seamlessly incorporated the books into my presentation while, at the same time, circulating them around the room. In this way, I matter-of-factly introduced students to the books as part of an overall computer presentation. Incorporated into my lesson was a candid discussion of the pros and cons of using books and computers and when and why a researcher might choose one over the other.

¶37 Once I concluded the basic introduction to legal research, I turned to some hands-on exercises. I used a combination of books, Westlaw and LexisNexis, and the Internet to tackle in-class research exercises. I prepared one in-class exercise in which students were given a fact pattern raising an issue of social host liability in the state of Massachusetts. Students were not yet familiar with "social host" as a term of art, so they did not know the magic words they needed to plug into their computers. After distributing the simple fact pattern, I asked some students to go online to Westlaw or LexisNexis to try to do some research. I asked another group to "Google" the problem to see what they could find.⁶⁵ I asked a third group

62. I taught two classes of twenty students each.

63. These presentations cover a myriad of introductory concepts such as primary and secondary authority, binding and persuasive authority, the hierarchy of authority and the court system, and formulating research strategies.

64. Westlaw's TWEN platform has a number of very useful digital photos of its research materials.

65. In addition to Google, we gave our students a brief introduction to the various free legal research resources available on the Internet. With the help of our library staff, we prepared a list of reliable Internet Web sites and distributed it to students during their regular research classes.

to look at books that I had pre-selected, including the index to *American Law Reports*, several volumes of *ALR*, and some digests. Students attacked the exercise with enthusiasm (law students being a very competitive breed, they perceived this exercise to be a race to see who could find the right answer first) and, unlike past research lectures, they were all engaged in some research activity.⁶⁶

¶38 Students who used Google received mixed results. Those who typed in “drunk driving in Massachusetts” in the Google search box retrieved statistics about drunk driving and information about hiring lawyers to defend against charges of driving while under the influence. Other students who typed “alcohol and liability in Massachusetts” were more successful. The first result led students to the page of the Massachusetts Institute of Technology Web site that sets forth the laws related to alcohol in the state of Massachusetts. But if students looked at the second result on the list, they found an article written by an attorney for a Massachusetts law firm entitled “Civil Liability of Homeowners as Social Hosts.” The article discussed the relevant law in the state and cited key cases and was clearly on point. Thus, if students were savvy enough to type in a specific enough search, they found a treasure trove of relevant information. If they were less accurate in stating their search, they spent a good deal of time jumping from search result to search result. The students who used Westlaw and LexisNexis had similar experiences, with some more efficient than others. Lastly, the students who used the indexes and the books found relevant annotations from the *American Law Reports* and some cases using the digests. All students reported back with some useful information. Equally important, most of the students were able to discuss the problems they had with the source they were using.

¶39 The message became clear. All tools had their pluses and minuses. With full access to all research resources, the students needed to learn to pick the most efficient tool for the task at hand. I emphasized that CALR was but one resource among several that they should consider for a research task and that no tool should be used in a vacuum. Sometimes they might start with an Internet search to get some basic background information and sometimes they might decide to use a book instead. In either case, their research does not end where it begins. I told them, for example, that the students who found the attorney article on social host liability using Google should take that information and locate the primary authority cited in the article. Understanding the law may begin with the article, but developing a full mastery of the principles requires an in-depth analysis of the relevant cases and other source materials.

¶40 I used a similar approach with a statutory research issue. Using a brief fact pattern, I asked students to do some research on the Americans with Disabilities Act. I suggested that they might first do a Google search to develop a working

66. Of course, I am certain that more than a few students continued to instant message a friend, go on CNN, or place a bid on e-bay. Those problems require their own solutions and should not negate the benefits of complete integration of research materials.

knowledge of relevant terms of art and concepts. Once they spent some time getting background information, they could retrieve the book version of the annotated code and look at the operative language in the statute followed by the relevant notes of decisions. We discussed the benefits to the reader in looking at a book and its pocket parts as compared to looking at individual screen shots on a computer. I discussed the need to understand context, something that frequently gets lost in screen-by-screen computer research. Once we located some relevant case citations, I then took them back to the computers and we started pulling up cases. From there they KeyCited, shepardized, and hypertexted to their hearts' content.

¶41 Ultimately, I told them, it did not matter to me which tool they used and that they were going to have to make their own choices. By empowering them to make their own decisions about research tools, I eliminated their reluctance to use the "old-fashioned books the teacher forced me to use." Instead students were more willing to accept the fact that books do have a place in their research and that they are not merely artifacts from another time. With all the tools out in the open, students were encouraged to make good choices about their research strategies. The message was clear: sometimes books are more efficient than online searching, sometimes the Internet is useful, and, of course, Westlaw and LexisNexis are always invaluable in doing research. No longer did students feel as though they were sneaking around the Internet or using forbidden tools to do their research. By empowering our students to choose what works best for them and for the particular research project, we engaged our students in the research process and improved our own credibility as teachers.

The Legal Writing and Research Support Page

¶42 In addition to adopting a fully integrated approach to teaching legal research, we decided to use the available Web course technology to reach more students.⁶⁷ While some writing professors had used such resources in their own sections, others had not. As a result, our students perceived, and rightfully so, that not all of the writing faculty were equally adept at technology and that some students were getting materials that others were not. To address the appearance of unevenness among writing sections,⁶⁸ we developed the Legal Writing and Research Support Page using the TWEN platform.⁶⁹

¶43 In order for the entire first-year class of almost five-hundred students to be able to access this Web course, they all needed to register for the course. Rather than rely on individual students to do this on their own, they were automatically enrolled during orientation week. All writing professors registered as users. We decided to use this resource modestly as we did not want to overwhelm students

67. See Lasso, *supra* note 59, at 31 ("[A] course web page is a critical tool to reach these screen-raised students.").

68. This was especially true for our evening writing sections which are taught by adjunct professors.

69. Some professors continued to have their own Web course using the LexisNexis platform.

with yet another task. Accordingly, we did not require that they log on but instead urged them to consult it for additional supporting materials at their leisure. We posted a course calendar, course documents (which included course materials relevant to all sections such as maps of the Federal Circuit Courts of Appeals and the National Reporter System, and suggested free Internet research sites), practice quizzes to help review for the legal research quiz, and tutorials with voice-over guides prepared by our library staff. In addition, individual faculty members were free to tap into the Westlaw instructional aids that were available on TWEN to help create their own course materials.

¶44 Reaction to the support page has been mixed. Some students viewed it “as yet another thing to do,” while others asked for additional tutorials and sample quizzes.⁷⁰ A marked increase in usage occurred just before the students took the research quiz given to the entire first-year class. By the end of the research segment of the course, there were 455 hits on the “Course Documents” link; 631 hits on the “Legal Research Tutorials” link; 1123 hits on the “Course Calendar” link; and 377 hits on the “Legal Process Quiz” link.⁷¹ Interestingly, a check of the course statistics at the end of the school year showed an increase in the number of hits over the rest of the year, demonstrating that students continued to use the tutorials and course documents on their own well after their legal writing class was over. Thus, while the net effect of this new tool on students’ actual research skills cannot be measured, it does have potential as a useful additional instructional aid.

Conclusion

¶45 Legal research instruction must keep pace with technology and, equally important, with students. To the extent that new methodologies create new problems, we should be creative in coming up with solutions. But we should not regress to old methods simply because new problems arise. The solution may be nothing more than a realization that all resources have their limitations and that we should teach our students that all resources—books, CALR, or the Internet—can be useful. Together they form the complete body of available legal research. Students come to law school primed to do everything on their computers and we, as professors of writing and research, must embrace that enthusiasm and use it to make a staid discipline more interesting and relevant. Ultimately, we will then be able to focus on what is most important—synthesis and critical analysis of the law—so that students will become better analytical thinkers.

¶46 Computer technology has permanently changed the educational landscape. Our lexicon reflects many of those changes. We upload, we download, we e-mail,

70. Results of TWEN survey on file with author.

71. *Id.*

we I-M, we chat, and we go online. And when our computers “freeze” and do not function the way they should, we *reboot*—we restart—them. Schools that have yet to fully embrace the myriad and growing number of computer resources available should no longer refrain from moving forward. At Brooklyn, we needed to reboot our approach to teaching legal research. What once worked is no longer working efficiently. Accordingly, we had to shut down our system and start it up again. As is usually the case, with some new upgrades, rebooting worked.