Technology and Legal Education: Negotiating the Shoals of Technocentrism, Technophobia, and Indifference

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Recently, a law professor began a semester by pointing to a new, wired console that housed a computer, microphone, and touch-screen control panel. “That,” he told the students, “is a ‘smart podium.’ ” Then the professor pointed to an austere table that held only a lectern and a casebook. “I teach here,” he said, smiling, “at the ‘dumb podium.’ ” Hours later, a different professor used the same room. The lectern now held only color-copied digital portraits of the students, and the professor used a remote mouse, laser pointer, computer, and data projector to display and manipulate electronically stored legal documents during a Socratic dialogue.

Many law classrooms now have sophisticated technology. Law students, however, learn quickly that professors have starkly differing attitudes toward teaching with such technology. Some ask, “Can technology empower us to teach better?” and answer yes. Others ask, “Can it seduce us into teaching worse?” and likewise answer yes. Both answers have merit. Legal educators are demonstrating that with technological teaching aids we can indeed help some students better grasp doctrine, learn legal analysis, and practice other essential lawyering skills. But we also can hinder learning if we use such aids ineffectively. The devil is in the details. Technological tools are no different than, for example, cars: Their value depends

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2. A colleague related this anecdote. The professor referred to is an outstanding classroom teacher.

3. Shelley Ross Saxer, One Professor’s Approach to Increasing Technology Use in Legal Education, 6 Rich. J.L. & Tech. 21 at n. 6 (Winter 1999-2000) (noting that law schools tend to be “far behind the educational systems that send us our students in terms of integrating technology into the learning process”).

on what we do with them and why.

This simple truth is too rarely spoken. Contributing to its rarity is the tenacity of three common mindsets: technocentrism, technophobia, and indifference. Like shoals, lurking often unacknowledged below perception and discussion, these mindsets can block us from sensibly assessing the potential pedagogical value of high-tech tools and hinder us from optimally engaging today’s students. Let us therefore (1) examine these shoals briefly; (2) articulate some benefits of charting a course between them; and (3) address how to do so. This final “how-to” step will address this conference’s overarching theme: erasing lines—that is, distinctions among legal educators—that deserve legal education. At many law schools, such lines inhibit the freedom of some educators to experiment with and debate teaching methods, especially those who seek to use technology effectively. That is neither fair nor sensible.

I. The Shoals of Technocentrism, Technophobia, and Indifference

Professor Molly Lien defined “technocentrism” in a cautionary 1998 article entitled Technocentrism and the Soul of the Common Lawyer. This mindset places machines, not people, at the center of our values. Technocentrism is common in a world that, as Jacques Barzun has described it, “favors the mechanical” indiscriminately. Impressed by the computer’s speed and precision, a technocentric educator forgets that a “computer does not teach, does not show a human being thinking and meeting intellectual difficulties.” Such an educator uses technology because it is fun, novel, and glitzy; because it is ego boosting and career enhancing to show off a law school’s expensive, new “smart” classroom; or simply for the reason to climb Mount Everest—“because it is there.” A law professor thus seduced by technology, explained Professor Lien,

- accepts use of technology “for its own sake,” without regard for the pedagogical disadvantages of some of its uses;
- overly values the ability of electronic devices to gather and distribute vast amounts of information speedily; and
- neglects the lawyer’s art of deep, multifaceted, reflective examination of legal issues.

Such rudderless uses of electronic gadgetry in classrooms shortchange our students. Worse, they may leave us pandering “edutainment” rather than fostering

6. See id. (“Too many conferences and faculty meetings start with the agenda item, ‘How can we use more technology in our classroom or practice?’ when the question should be, ‘How can we improve our teaching or lawyering?’”).
8. Id. at 31.
9. Lien, supra n. 5, at 88-93.
education—that is, reaching students’ eyes and ears but missing their hearts and minds. As a consequence, Professor Lien warned, we may graduate students who have technical proficiency, but who lack the compelling insight and persuasion that arise from meticulous, open-minded reading, reflection, and discussion. \(^{10}\)

Technophobia, by contrast, lies opposite technocentrism. This mindset pushes technology so vigorously from the center of one’s values that it lands beyond the pale. Technology, the technophobe believes, must remain banished if the classroom is to remain a realm of meaningful intellectual discourse. Sometimes a law school’s infrastructure promotes this belief. Poorly configured classrooms,\(^{11}\) inadequate equipment, and ineffective support staff can lend credence to dismissals of technology’s classroom usefulness. A law school’s culture likewise may foster technophobia. Deans and experienced professors, for example, may fail to exercise leadership in demonstrating opportunities for using technological teaching aids. Whatever its cause, technophobia can, like technocentrism, stunt the growth of a professor’s teaching effectiveness.\(^{12}\)

Indifference lies near technophobia and tends to be a deeper, less noticed shoal. It is complacent ignorance of the potential benefits of technology in the classroom. It may appear as conservative traditionalism, for example in the assertion that “my Socratic method works, as it has for years.” This attitude is unfortunate, even in celebrated classroom teachers. They, too, should find benefit at least in examining technology’s potential and rejecting it, if that is what they choose, from an informed high ground rather than the plains of ignorance. Indifference to technology’s potential, moreover, ignores evidence that traditional Socratic method often does not serve all students optimally.\(^{13}\) Indifference, like fear of technology, thus blocks a promising route along the journey of continuous pedagogical exploration and improvement.

Indifference and technophobia occasionally are acknowledged but misrepresented as safe harbors. Little excuse for such a misrepresentation exists today. “Technology in the classroom is . . . here to stay,” Dean Mary Kay Kane recently told the American Association of Law Schools on the AALS Newsletter’s front page. As we welcome a “new generation of students [that is] embracing . . . technology and demanding modernized learning environments,” she added, technology seems poised to assume a dominant role in the “delivery of higher education.”\(^{14}\) Accordingly, Dean Kane implored all AALS members “to consider

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\(^{10}\) Id. See Ehrenberg, supra n. 4, at 3 (“The significance of technology to what we do has been overestimated, and . . . the human element indispensable to good skills instruction may be underestimated or dismissed entirely. Even the best technology currently available is incapable of executing the most essential function performed by a legal writing instructor: providing an intelligent, individualized critique of a student’s writing.”).

\(^{11}\) When I started teaching at Vanderbilt in 1998, for example, to use even an overhead projector optimally in the only classroom available, I had to place it inside an unbroken, immobile, rectangular arrangement of tables—over which I had to climb to use the projector during class.

\(^{12}\) See infra Section II.

\(^{13}\) See infra n. 20, and accompanying text.

\(^{14}\) Mary Kay Kane, Technology and Faculty Responsibilities, in Assn. of Am. L. Schs., The Newsletter 1, 1-2 (April 2001); see Richard Warner, Stephen D. Sowle, & Will Sadler, Teaching Law With Computers, 24 Rutgers Computer & Tech. L.J. 107, 170 (1998) (“Legal education will inevitably become more dependent on computer technology.”).
how we intend to use and react to technology in our law classes.” 15 Similarly, Henry H. Perritt, Jr., former Dean of Chicago-Kent College of Law, has pointed to the growth of online, distance education and warned that, if we who teach in brick-and-mortar law schools “are not actively working to take part in it, then we will get run over by it.” 16 Simply put, today’s students and prospective students require us to examine the pedagogical value of technology.

II. Why We Should Chart a Course Between These Shoals

Law professors should chart a course between technocentrism, technophobia, and indifference because that will best help them maintain or improve their teaching methods’ effectiveness. Following such a course, we would explore technology’s potential while vigilantly keeping students, not machines, at the center of our concern. We would recognize that fear of the complexities and novelty of emerging technology can paralyze us, leaving us unable to serve today’s students optimally. 17 We would recall that indifference may leave us complacent, teaching much as we were taught, unaware of appealing and effective options for teaching students whose needs are varied and whose expectations often do not match those we brought to law school. We would, in short, remain well prepared even as technology profoundly changes our environment.

The foundation of my belief that technology, used wisely, can help us teach well is the premise that ultimately students learn independently. As Jacques Barzun has explained:

one does not teach a subject, one teaches a student how to learn it. Teaching may look like administering a dose, but even a dose must be worked on by the body if it is to cure. Each individual must cure his or her own ignorance. 18

Professors, therefore, should serve as mentors and moderators, helping guide the students as they follow their learning curves. But students have varied learning styles and preferences, plus varied work ethics. Moreover, we must teach a variety of skills. Learning curves thus typically vary for each student and also for each task assigned. We therefore face a challenge of variety: Our students have different, constantly shifting needs. 19

15. Kane, supra n. 14, at 3.
17. Fear and indifference may arise from unfamiliarity with technological tools. But they may also arise from the chilling controversy over technology’s role in law schools.
19. “Law faculties must decide how best systematically to reflect upon, and assess how to go about adapting, the current delivery system to meet the needs of growing populations of non-traditional students, with the goal of maximizing learning for all students. This is the challenge of the twenty-first century.” Alice M. Thomas, Laying the Foundation for Better Student Learning in the Twenty-First Century: Incorporating an Integrated Theory of Legal Education into D ontral Pedagogy, 6 Widener L. Symposium J. 49 (Fall 2000).
We can best meet this challenge of variety by using a variety of teaching tools and methods. Technological tools also are important because, used wisely, they can empower us to reach students optimally: in various times, manners, and places. “Computers can be used to aid ‘our most conventional classroom activity: lectures and Socratic discussion,’ [and simultaneously to] enhance student learning outside the classroom.” If we critically and carefully seek the best tool for each task, we will learn to reach more students more effectively than if we either shun or rely exclusively or blindly on technology.

For example, my first-year students in legal research and writing hear me commit myself as the semester starts to efficient, useful interactions with them. Consequently, I try to focus these interactions on helping them at the most difficult stages in the learning process, when they are struggling deeply to master concepts and skills, when they are readiest to experience an “aha moment.” I promise not to waste time teaching them what they can easily learn themselves. Moreover, I pledge to give them what they need to become ideally prepared to benefit from interactions with me.

Accordingly, I ask them to learn through a cycle of (1) “guided preparation”; (2) doing; (3) feedback; and (4) repetition, usually at a higher level of complexity. First, the “guided preparation” is the initial learning students do on their own, using tools to which the professor has guided them. The tools typically are readings, but they also may be anything from a short lecture to electronic, interactive tutorials. Second, the doing is practice applying the knowledge they have gained thus far. Third, students learn from my prompt, detailed commentary on their efforts. But feedback also flows in the opposite direction: I, like the students, gain information about where each student is along the learning curve. This information primes us to engage in useful discussions, be they in class, in small groups, or individually. Fourth, we repeat this process while aiming for better understanding and greater mastery of the task.

Technological tools, used together with my other teaching methods, have helped my students engage in this learning cycle smoothly. Consider first citation. Students need to learn it. But that does not necessarily mean that an instructor

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20. E.g. Robin Boyle, Bringing Learning-Style Instructional Strategies to Law Schools: You Be the Judge, in Practical Approaches to Using Learning Styles in Higher Education (Rita Dunn & Shirley A. Griggs eds., Bergan & Garvey 2000) (concluding “that straight lecture, the case method, and the Socratic method are not effective instructional strategies for significant percentages” of her legal writing students “due to the diversity of learning-style preferences” among them).


22. As Professor Alice Thomas notes, “incorporating more technology” into teaching is only one step toward improving legal education. Also important is developing “an integrated theory of legal education [that] . . . would provide a theoretical framework of concepts and principles about teaching that would guide our choices and decisions about how best to educate future . . . law students.” Thomas, supra n. 19, at 54.

must actively teach it. We should not force such unexciting class sessions on the students. We can instead use the Interactive Citation Workbook and online Workstation. It empowers students to learn without substantial faculty direction. We adopted this tool at Vanderbilt and since have taught citation only minimally, with surgical precision; that is, only where the results we collect from students have shown very specific needs that we can address efficiently.

Consider also computer-assisted legal research. At Vanderbilt, we initiated an online, self-guided tutorial project that helped inspire materials that Lexis has developed, beta-tested on our students, and released. This is helping us bring the basic, rather mechanical aspects of CALR instruction efficiently to students, whenever they want it and at whatever speed they can process it. It leaves us free to concentrate on more difficult research skills, where students must analyze carefully to solve problems. That is where we can offer the most benefit—and not, for example, in teaching students which screen button to hit to Shepardize or KeyCite.

Finally, consider writing instruction. Technology also has helped me focus precisely on students’ points of need. As I and others have demonstrated at legal writing conferences, we can use computers to gather, adapt, display, color-code, and live-edit—in class—student writing samples. I also use a laptop and data projector to engage students in collaboratively creating analytical charts. I do this to help them see how lawyers compare texts to synthesize rules and detect nuances and value choices in reasoning and argumentation. I also do it to prompt them to learn actively and cooperatively. And I do it to help them create an analytical product—the charts—that they can take pride in and use immediately as they draft an inter-office memorandum.

III. Charting a Favorable Course

To chart a favorable course between technocentrism, technophobia, and indifference, we must explore and debate ways to use technology selectively, carefully, knowledgeably, and purposefully. We must search open-mindedly for ways that technology can help us make every minute we spend on teaching add value for our students. We must do so, moreover, publicly and systematically by setting forth our goals; documenting how and why our experiments with technology either do or do not help us achieve those goals; publicizing and debating our findings; and refining our techniques accordingly.

This plan may sound straightforward. But it is substantially undermined by inequalities in academic freedom. Law teachers who have substantially less security

24. Tracy McGaugh, Christine Hurt, & Kay G. Holloway, Interactive Citation Workbook for ALWD Citation Manual (2d ed., 2001); see Tracy McGaugh, Christine Hurt, & Kay G. Holloway, Interactive Citation Workbook for The Bluebook: A Uniform System of Citation (2d ed., 2001).

25. Westlaw has some similar features. It also has “Live Help,” which offers help to students through an online chat with a West reference librarian.

than their tenured colleagues face stronger temptations to focus more on politics than pedagogy as they consider technology's role in teaching.

This temptation is probably strongest among those who teach the unpopular subject of legal research and writing. First, we face insistent pressures to use technology. Our curriculum seems uniquely suited to technological teaching aids. We teach, alongside analysis and advocacy, skills that technological advances have profoundly altered and that now seem to demand computers. Online research and word processing are, after all, basic tools for today's law graduates, and they have changed our curricula. Meanwhile, our students have changed: The “Internet generation” expects us to employ technology. And if a law school requires each student to buy a laptop, who are we to leave these powerful devices unused in our classrooms? Not surprisingly, therefore, many of us feel pressure from deans, professors, and students to use technology in our teaching. These pressures push us toward the center of controversy over technology and teaching.

Second, we often lack power to respond to those pressures optimally. Our status within law schools generally is improving. But it remains relatively fragile. Many legal research and writing professors are neither tenured nor on a tenure track. We generally still can say, as Susan Brody did at the 1993 Minnesota conference on the MacCrate Report, that “[n]o other group of law teachers are treated less like full time professionals than legal writing teachers.” We still inhabit, as Dean Syverud said in his presentation at this conference, a low caste within law schools.

A dismaying example of controversy that might tempt us to focus more on politics than pedagogy came recently from the Illinois Institute of Technology's Chicago-Kent Law School. This institution prizes its technological progressiveness. Its former dean, Henry J. Perritt, Jr., is the one who warned that distance education might “run over” us if we don’t run ahead of it. He recently denied the

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27. E.g. Ehrenberg, supra n. 4, at 1-3; Paul Beneke, Give Students Full CALR Access Immediately, 8 Persp. 114 (2001) (arguing that the evolution of research tools renders the common practice of limiting first-year students' initial access to Westlaw and Lexis more troublesome than helpful).


29. Susan Brody, Teaching Skills and Values During the Law School Years, in The MacCrate Report: Building the Educational Continuum 22, 26 (Joan H. Howland & William S. Lindberg eds., West 1994). On the other hand, many law schools employ academic support providers who may claim this distinction.

30. See supra n. 16, and accompanying text.
tenure application of Professor Molly Lien after she published the article mentioned earlier, *Technocentrism and the Soul of the Common Law Lawyer*. This article, her other publications, and her years of strong teaching and service convinced Professor Lien’s fellow faculty to vote nearly unanimously for her to receive tenure. But Dean Perritt disagreed, particularly because, Professor Lien says, he disliked her technocentrism critique. Thus axed by the dean’s maverick veto, Professor Lien left the school.

According to the Chicago Tribune, Professor Lien’s dean criticized her article on technocentrism as a work based on “questionable analytical methodology.” This is a remarkable statement for at least three reasons:

1. Professor Lien’s methodology was not novel. She analyzed a wide range of relevant scholarship; reflected on her many years of experience at a technologically advanced law school; and published her opinions in a concise, readable, effectively footnoted article in a respected law review. This method should sound familiar.

2. Professor Lien’s article is useful. It collects and reports pertinent findings from scholars in various disciplines and responds cogently to them. It has thereby stimulated widespread thought and discussion.

3. Professor Lien’s article has stimulated widespread thought and discussion on an important and timely topic. Law schools competitively publicize their technological prowess. They invest heavily in wired classrooms and may require students to buy computers. Distance education, meanwhile, competes for our attention. New universities appear online, and private companies market high-tech study and research aids to students. The tide of technology is rushing in around us, changing the educational landscape in which all our law schools stand.

Moreover, Professor Lien’s message made sense. She observed this tidal flow closely and raised a warning flag. She did not say: Build a dike—this influx of technology must stop! To the contrary, she acknowledged certain benefits of electronic devices and expressly disavowed a neo-Luddite rejection of today’s machines. But she also warned that “insensate use of computers” can distract students; lull them into passivity; seduce them into copying rather than “encoding” or analyzing information; and encourage “law-byte methodology.” That methodology consists of gathering, cutting, and pasting rules and text snippets, with little analysis of the “wisdom, correctness and applicability of legal arguments,” reasoning, results, and narratives. Professor Lien said, in essence: The temptation is great that we will unthinkingly, unwisely use the new resources flowing our way. Be aware, skeptical, and selective. Above all, do not lose your focus on teaching well. Use technology only if it complements, not supplements, thoughtful and in-depth learning.

32. Lien, supra n. 5.
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Professor Lien also expressed concern for the “soul of the law.” This soul lies deep but elevates us high. Professor Lien asked us to “deplore superficiality” and “strive for illumination” with our students. She asked us to inspire them both “to make virtues and values a part of the decision-making process” and to favor “legal analysis that is critical, inquisitive, novel, moral, equitable, and just.”

Might this lofty talk form part of the supposedly questionable methodology that Professor Lien’s dean criticized? Professor Lien, among other tasks, directed Chicago-Kent’s legal research and writing program. She had done so for eight years, building on seven prior years of teaching that subject at Chicago-Kent. Did Dean Perritt find her unwillingness to confine her teaching to nuts and bolts (apostrophes and commas), and to restrain her goals and rhetoric accordingly, presumptuous for just a legal writing professor? Did Professor Lien, like Icarus, fly too high?

Objection! Such questions invite speculation! True, but consider the basis for such speculation. Professor Lien’s successors are not, as she was, on the tenure track. Dean Perritt told the ABA Journal that a mere director of legal research and writing simply need not “have job security and faculty rank to be effective.” This too is a remarkable statement. Security and academic freedom are not divorced from effectiveness.

As the former President of the Association of American Law Schools, Dean Elliot Milstein, wrote about clinicians: “We depend . . . [on] academic freedom to protect the integrity of our scholarship and our teaching, to permit us . . . to speak truth to power in those contexts.” The same is true for all professors.

When professors who lack tenure, especially those who teach legal writing, decide how to teach and what to say publicly about technology’s role in teaching, we may remember Professor Lien’s experience and ask:

- If we openly, critically question the pedagogical value of certain uses of electronic teaching aids, will our careers suffer?
- Conversely, if we use technology heavily and praise it forcefully, without addressing its disadvantages, will our careers benefit?

34. Lien, supra n. 5, at 88-89.
35. Id. at 134.
36. Cf. Fed. R. Evid. 702 (requiring expert testimony to be “based upon sufficient facts or evidence”).
38. This fact is reflected in the ABA’s new Standard 405(d), which requires for “legal writing teachers such security of position and other rights and privileges of faculty membership as may be necessary to (1) attract and retain a [well-qualified writing] faculty . . . and (2) safeguard academic freedom.” ABA, Standards for Approval of Law Schools and Interpretations <http://www.abanet.org/legaled/standards/chapter4.html> (accessed Dec. 19, 2001).
• To what extent do we enjoy sufficient academic freedom to teach our students optimally?

Another relevant forced exit from teaching is that of Peter Brandon Bayer, who until spring 2000 directed the legal writing program at Miami’s St. Thomas University School of Law. St. Thomas had recently finished evaluations by both the Association of American Law Schools and the American Bar Association. The ABA had pronounced the writing program Professor Peter Bayer directed “first rate.” Professor Bayer had strong qualifications and experience: a J.D. and advanced degrees from New York University and Harvard, a federal judicial clerkship, an impressive list of publications, seven years in legal practice, nine years of teaching legal writing, four of them as St. Thomas’s director. The dean told the faculty that he did not question Professor Bayer’s classroom effectiveness. Professor Bayer had, however, advocated reducing the size of legal writing classes. Suddenly, however, without warning or discussion, and months after legal education’s hiring season had passed, the dean fired Professor Bayer and instead delegated much of the legal writing instruction to far cheaper and less experienced adjunct lecturers. Professor Bayer commented:

The Dean’s stunning reversal of my career underscores the difficult reality faced by most legal writing faculty at American law schools. . . . [Few] of us have job security, faculty votes, or even offices on the main faculty wing. Despite my productive work and extensive experience, my income as program director was lower than the salary paid to the least experienced tenure-track professor . . . .

The reasonable person may well ask why the academy has so starkly and unkindly trivialized our work, marginalized our existence in the law school community and, despite our important contributions to legal education, made our professional lives a matter of institutional inconsequence.

Now, Professor Bayer concluded, he too had experienced “an extreme but not anomalous example of the disregard with which a sizeable majority of American law schools treat both legal writing programs and the dedicated experts who teach that vital and difficult subject.”

Professors Lien and Bayer appear to have enjoyed little meaningful freedom to voice their pedagogical views. We may expect their experiences to inhibit experimentation and debate among legal research and writing professors regarding technology’s role in teaching. That is a shame. Law school faculties should, to the contrary, foster such experimentation and debate by better supporting all professors

41. Id. at 330-31.
42. Id.
who engage responsibly and effectively in these processes. Thus, they should, for example, better embrace, “as a legitimate, meaningful, substantive and respected part of legal discourse,” scholarship regarding educational theory and practice, including the use of technology in legal writing courses. They could thereby “chip away at the ‘Berlin Wall’ that separates doctrinal scholarship from all other forms of legal scholarship.” Faculty also could more often demonstrate a “commitment to, and preference for, good teaching by granting tenure to law teachers who produce [education-focused] scholarship . . . and to those who invest their time in acquiring and using educational theory to improve their teaching practices . . . .” Measures like these would help both erase caste lines and ensure that law schools offer their students the best possible teaching.

IV. Conclusion

Technological tools need not pervade law classes or replace successful traditional teaching methods. But they can contribute much to legal education if we use them wisely. We therefore should continue to investigate, rigorously and openly, how with technology—among other tools—we can help all our students learn more efficiently and effectively.

Unfortunately, law schools too often dampen the search for the most effective teaching techniques, technological or otherwise, in the legal research and writing field. The experiences of Professors Lien and Bayer, in particular, show how unequal treatment of legal writing professors inhibits debate where it could, and should, burn brightly—among professors who typically have much to offer, in courses where students bring strong expectations for effective teaching, and particularly for teaching with technology. This inhibition undermines the law school’s mission of fostering increased excellence in American legal education. It makes wise, technologically responsive teaching riskier, quieter, and lonelier than is optimal for us, our students, and the legal profession.

43. Thomas, supra n. 19, at 118.
44. Id.
45. Id.; see Saxer, supra n. 3, at n. 34 (“untenured faculty members may not be willing to risk [investing energy into computer-assisted instruction] at the expense of traditional scholarship”).