Legal Education and Technology III: An Annotated Bibliography

Pearl Goldman
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The digital revolution in legal education has engendered a large body of scholarship. To help legal educators locate materials that inform and enrich their teaching and writing, Professor Goldman offers an updated annotated bibliography of articles, commentaries, conference papers, essays, books, and book chapters that examine the use of technology in legal education.
Introduction

¶1 In 2008, Law Library Journal published an annotated bibliography that compiled scholarship examining the impact of technology on law schools and legal education between 2001 and 2008.¹ That bibliography is supplemented here, with annotations of scholarship published in the United States and other countries between 2008 and 2019. Included are articles, commentaries, conference papers, essays, books, and book chapters addressing one or more of nine main categories into which the bibliography is organized: communications technologies, curriculum, information technology, instructional methods and technology, law schools, mobile technology, pedagogy, the impact of technology on the future of legal education, and miscellaneous.

¶2 Organizing the material into categories was more challenging than in previous years. As the use of technology in legal education has become increasingly sophisticated, so has the scholarship discussing it. Early articles reported on discrete topics that were easy to classify, such as communicating by listservs, email, and threaded discussions; assigning tutorials; and automating administrative tasks in clinics. Today, however, courses use and blend multiple technologies, including virtual learning environments, multimedia features embedded in video lectures and electronic texts, and platforms for cross-border teaching. The corresponding scholarship is rich and textured, and often does not fall neatly into discrete categories.

¶3 Within each category and subcategory, entries are organized alphabetically by author and cross-referenced when appropriate. Accompanying each entry is a summary of the subject matter or central points discussed in the article, and any additional features of interest, such as appendices, graphics, bibliographies, and hyperlinks.

¶4 Relevant material was identified by conducting searches of Westlaw; LexisNexis; HeinOnline’s Law Journal Library; Berkeley Electronic Press (bepress);² the Social Science Research Network (SSRN), which provides repository services for

². The Berkeley Electronic Press (bepress) publishes several journals and provides an open access online repository for scholarly working papers, preprints, and forthcoming papers in various disciplines, including law. The bepress Legal Repository is located at http://law.bepress.com/repository [https://perma.cc/C877-HPGD].
several disciplines, including law through the Legal Scholarship Network;\(^3\) and Google Scholar.\(^4\) Review of citations in the footnotes of works abstracted yielded additional materials, as did the use of KeyCite and Shepard’s Citations.

¶5 Finally, although the goal was to produce a comprehensive bibliography within the subject area and time frame, noteworthy pieces may have been omitted unintentionally. The author regrets such omissions and invites readers to submit citations to relevant work for possible inclusion in a future supplement. This bibliography is current as of August 28, 2018.\(^5\)

### Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AALS</td>
<td>Association of American Law Schools</td>
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<tr>
<td>ABA</td>
<td>American Bar Association</td>
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<td>AI</td>
<td>Artificial intelligence</td>
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<td>ALTA</td>
<td>Australasian Law Teachers Association</td>
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<tr>
<td>ARS</td>
<td>Audience response systems</td>
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<td>BAILII</td>
<td>British and Irish Legal Information Institute</td>
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<tr>
<td>bepress</td>
<td>Berkeley Electronic Press</td>
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<tr>
<td>BILETA</td>
<td>British and Irish Law, Education, and Technology Association</td>
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<tr>
<td>CAI</td>
<td>Computer-assisted instruction</td>
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<tr>
<td>CAL</td>
<td>Computer-assisted learning</td>
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<tr>
<td>CALI</td>
<td>Computer-assisted legal instruction</td>
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<td>CALR</td>
<td>Computer-assisted legal research</td>
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<td>CLE</td>
<td>Continuing legal education</td>
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<td>CMC</td>
<td>Computer-mediated communication</td>
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<td>CRS</td>
<td>Classroom response system</td>
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<td>CT</td>
<td>Communications technology</td>
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<td>CUNY</td>
<td>City University of New York</td>
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<td>DE</td>
<td>Distance education</td>
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<td>DL</td>
<td>Distance learning</td>
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<td>FSU</td>
<td>Florida State University</td>
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<td>GSU</td>
<td>Georgia State University</td>
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<td>HKU</td>
<td>Hong Kong University Faculty of Law</td>
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<tr>
<td>ICODR</td>
<td>International Competition for Online Dispute Resolution</td>
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5. Editor’s note: Some entries postdate August 28, 2018, because they were originally prepublished versions that have subsequently been updated or published in final form.
ICT Information and communications technology
IT Information technology
ITS Intelligent tutoring system
LARGO Legal argument graph observer
LEDA Legal education document archive
LII Legal Information Institute
LRW Legal research and writing
LSAT Law School Admission Test
LSN Legal Scholarship Network
MOOC Massive open online course
NYLS New York Law School
ODR Online dispute resolution
OWL Open web lecture
PT Presentation technology
QUT Queensland University of Technology School of Law
SIMPLE Simulated professional learning environment
SSRN Social Science Research Network
UWA University of Western Australia
UWS University of Western Sydney School of Law
VLE Virtual learning environment
VRS Voice recognition software
WSU Western Sydney University

Communications Technology


Students in Balsam’s sports law class were asked to research and author a blog entry about a current issue in sports law. The assignment sought to engage students in the practical application of doctrine and to heighten their appreciation of the need to maintain current awareness of legal issues. The author discusses the assignment instructions, requirements, and learning outcomes, and includes her blog post style guide and assessment rubric.

6. Communications technology includes the use of computers to transmit and receive messages, documents, and information, and to engage in discussions with others. See Richard Susskind, The Future of Law: Facing the Challenges of Information Technology 152–54 (1996). The articles in this section discuss the use of email, blogs and microblogs, podcasts, chats, electronic discussion lists, and electronic conferencing in legal education.

Calleros proposes adapting legal writing curricula to mobile technologies, such as smartphones and similar hand-held devices. Acknowledging that the traditional memorandum of law is a superior teaching tool, he argues that first-year LRW courses should also assign shorter follow-up memos that fit comfortably within an email, are easily read on a hand-held screen, and employ any streamlined format appropriate to the assignment. Appendices include sample email memos.


Dagilyte shares her experience teaching law blogging with formative peer assessment at Buckinghamshire New University. She argues that blogging helps law students develop skills sought by employers, including LRW and IT literacy. She also discusses the learning and assessment challenges encountered and suggests ways to overcome them. Finally, she concludes that law blogging can motivate students to write better, to express their ideas to a wider audience, to increase their self-autonomy, and to develop critical thinking.


In spite of the rise of electronic communication in law practice, most students first learn to use email informally. For this reason, the author argues that legal writing classes must include instruction on email form and style in a professional context. She recommends that such instruction include examples of good and bad email techniques, address tone and grammar issues commonly occurring in email communications, and offer students an opportunity to practice.


In this brief article, Gallacher discusses the preparation and use of podcasts and video tutorials as an alternate method of reinforcing fundamental course concepts. He recommends using these technologies to communicate with students who are too shy for face-to-face contact and to address student concerns when a faculty member is unavailable to answer questions in person or by email.


The authors suggest that blogging and microblogging can serve as educational tools for exchange, discussion, and collaboration beyond traditional law school classrooms and print media, enhancing learning while encouraging isolated students to interact with others. Using case studies of their own experiences, they conclude that these tools can open up a more engaged professional community for law professors and students, beginning with their first-year experience through to law practice and continuing professional development.

This article discusses the use of podcasts for teaching and professional development. The authors explain how to find, download, and use podcasts as a supplementary teaching tool. They also provide suggestions for integrating them into active learning exercises and for creating individualized professional development opportunities. The article concludes with a list of law-related podcast producers and websites and detailed instructions for creating and publishing a podcast.


In the United Kingdom, Plymouth Law School teaches legal reasoning via the “Virtual Court,” a technology-enhanced experiential learning environment. An online chat service is used for discussions between defense and prosecution lawyers and between judges, for opening and closing statements, and for delivery of judgments. The authors review the program and suggest improvements, proposing that the Virtual Court be developed into a cross-platform application that would run on mobile devices and be suitable for any law course.


A survey of student satisfaction with online discussions in practical legal training programs in Australia revealed that more than half of the respondents were dissatisfied with the online discussions as a learning experience. In this regard, satisfaction was most closely associated with the quality and timeliness of the professor’s participation in the discussions. The authors describe the implications of the study and call for further research into improving the role of faculty in online discussions while keeping them learner-centered.


After examining the ABA rules regarding technology and client communication, the author argues that legal writing professors and supervising attorneys have a responsibility to educate law students and mentees about when and how to use technology when engaging in client communications.


See infra p. 353.


Kristl argues that the coverage and time constraints imposed by traditional classroom instruction impede learning for students who are unfocused, are unable to process large cognitive loads, or lack organizing schemata. He explains how podcasting allows students to listen repeatedly, to control the pace of learning,
and to learn directly from the professor. He describes the podcasting program
he created for his property classes and presents survey data suggesting that his
students found podcasting to be a valuable supplement to classroom learning.

Lee, Katrina. “Process Over Product: A Pedagogical Focus on Email as a Means
of Refining Legal Analysis.” *Capital University Law Review* 44, no. 3 (2016):
655–70.

Writing emails can provide a familiar and comfortable medium that liberates
students from the strictures of formal legal writing to focus on legal analysis. The
author advocates assigning email writing as part of a longer writing assignment,
requiring students to report on their legal analysis in the larger project. She also
offers examples of exercises that focus on analysis and emphasize the writing pro-
cess over the final written product.

47–67.

Leiman argues that communication of legal ideas can benefit from visual com-
munication tools. After considering supporting technologies that can address the
learning needs of a generation of students with strong visual literacy, she offers
eamples of current best practices. Leiman concludes that law schools should
teach the use of visual technologies to prepare students for their increasing use
in law practice.

Lower, Michael L., Keith Thomas, and Annisa Ho. “Using Podcasts to Support Stu-
dents in a Land Law Class.” In *Proceedings of the 5th International Conference
2010.

This conference paper describes the authors’ experience creating and using pod-
casts for students in land law classes at the Chinese University of Hong Kong. The
authors discuss their motivations for using podcasts, the utility to students, and
the teaching and learning implications for instructors. Results from a pilot study
and follow-up indicated that podcasts provide a starting point for class discus-
sions, offer a process for understanding difficult concepts before attending class,
and serve as a mechanism for review.

Margolis, Ellie. “Incorporating Electronic Communication in the LRW Classroom.”
*Perspectives: Teaching Legal Research and Writing* 19, no. 2 (Winter 2011):
121, 123–25.

See infra p. 363.

McCormick, Marcia L. “From Podcasts to Treasure Hunts—Using Technology to
Promote Student Engagement.” *Saint Louis University Law Journal* 58, no. 1

McCormick explains how she uses three technological innovations to supple-
ment in-class doctrinal work and help students begin to master the subjects: (1)
podcasts summarizing and reinforcing material; (2) online quizzes and treasure
hunts requiring students to apply complex statutes to specific problems; and (3)
a blog offering updated information on class topics. She also discusses the online
platforms she uses to provide these resources to her students.

Newlyn, David, and Liesel Spencer. “Vodcasting in Tandem with Annotated Exem-
plars to Improve Student Performance.” *Canadian Legal Education Annual

This article reports the findings of a long-term project designed to measure the
impact of exemplars on students in an interdisciplinary law unit at UWS. The
authors report on the third part of this study, in which annotated exemplars were supplemented by vodcasted exemplars, accessible via the university’s online learning platform. The goal was to determine the effectiveness of these exemplars as a means of communicating assessment criteria to students and improving student performance in a course with a large teaching staff and taught across multiple campuses. The authors present their methodology and outcomes, concluding that the vodcast and annotated exemplars did result in further improvements of student performance.


The author examines a 2006 survey of Georgetown University Law Center graduates suggesting that the traditional legal memorandum is almost defunct in law practice. Instead, attorneys communicate with clients using email, telephone, face-to-face discussions, informal memoranda, or letters, in that order of preference. She concludes that faculty should acknowledge the growing importance of electronic communication and incorporate it into the LRW curriculum. In particular, she proposes teaching substantive email as a more concise and inexpensive form of communicating advice.


See infra p. 396.


This article discusses the use of podcasts to supplement classroom instruction in LRW courses. Part I explains how to create, post, and access podcasts. Part II considers the challenges and pedagogical and practical advantages of using podcasts. Part III illustrates how they can be used effectively for LRW courses.


Watkins provided her equity and trusts students with an edited podcast of each class to enhance learning. Her article discusses the technology and challenges, including limited training resources and a steep learning curve for busy academics. It also presents the author's reflections and positive written responses from students and staff. Watkins concludes that the exercise was a positive one and recommends that experienced users assist their colleagues in the use of podcasting.


This working paper discusses the use of programmable interactive avatars as standardized clients to teach communications skills in law schools. The author explains how computerized conversational agents, known as chatbots, are capable of more extensive and complex dialogues than law students playing the same client roles. He also examines the technical challenges and pedagogic opportunities of using digitized clients.
Curriculum

Assessment and Feedback


The University of Pittsburgh School of Law used a web-based peer review system to administer an essay exam. The authors discuss the computer-supported systems needed to coordinate online submissions and their distribution for anonymous review. They also discuss the rubrics used. Here, web-based peer review scores correlated with the instructor’s independently assigned grades, supporting the belief that it provides additional feedback about student performance and instructional goals and helps faculty adopt more pedagogically effective review criteria. The rubrics appear in appendices.


In this study, the authors sought to promote self-regulated learning via video recordings and feedback of law student performances in a presentation skills teaching module. The authors found that simply providing a new tool does not guarantee its use as anticipated or intended and that more opportunities for continuing discussion of performance and feedback were required.


This paper reports on a survey of law students’ experiences at seven U.K. universities. The survey was designed to elicit perceptions about a range of technological learning environments. After explaining her methodology and analyzing survey results, the author concludes that law students appreciate technological innovations but believe that they do not always receive sufficient feedback before formal assessment.


This paper explores the benefits of using MP3 recordings to provide individualized feedback to law students. In a trial using the free Audacity software program, media law students at QUT praised the process as an effective means of personalizing feedback on written assignments. The author concludes that the individualized recordings are capable of delivering detailed individualized feedback more effectively and efficiently than traditional written comments, without increasing faculty workload.


The authors used animation to depict a legal ethics problem to law students, with multiple-choice questions used for formative assessment. They discuss the software and distribution platforms used and the creation of a storyboard and script.
Student feedback revealed that the animations engaged students and helped them to learn and visualize the issues. The authors plan to use student comments to refine design features and improve the animations and the learning experience.


The Australian National University developed an online professional practice workshop, which integrated property law, litigation, trust accounting, ethics, and practice management competencies into a single course situated within a virtual office space. The authors explain the motivation for moving to an online environment and the challenges involved in integrating assessment within the lawyering tasks. They conclude that the program created sustainable assessment practices that will contribute to the development of students' professional identities throughout their careers.


This conference paper reports on the author’s experiment requiring first-year law students to write four blog posts throughout the semester. Galloway focuses on the challenges presented by subject and assessment design, and students' lack of familiarity with the technology. However, she also reports an increased level of engagement by students, who expressed appreciation for the assessment feedback.


Online assessment was introduced at Australia’s Charles Darwin University, where most law students are external. Hemming reports on the project and addresses the nature, timing, and benefits of online testing and provides examples of assessment questions. He predicts that fully online assessment will be critical to securing a competitive advantage as Australia’s online law degree providers attempt to secure market share.


This paper explains how objective online quizzes coupled with extensive feedback can be used as a formative assessment tool to teach doctrine and problem solving. The author advocates administering an assessment tool before class so the professor can design the next class to cover material that students had difficulty mastering. He also points out the benefits of automatically graded assignments, but cautions faculty to provide feedback on why an answer was incorrect.


Although digital natives process information differently than previous generations, they nevertheless face static law school assessment methods that are incompatible with learning theory and their digital upbringing. To address this conflict, Moppett advocates using technology to assess learning throughout the semester.
She discusses technological assessment tools that can be used both inside and outside the classroom, concluding that this approach will provide multiple assessment and feedback opportunities to large numbers of students and enhance their educational experience.


Arguing that innovations in law teaching must be met with corresponding equivalents in assessment, the authors explore the use of novel assessment methods at Greenwich University’s Department of Law and Criminology. These methods include using WebCT assignments and quizzes in the legal methods course and a webpage creation assignment in the land law course. The article details the assessment strategies used, challenges presented, and effectiveness of the methods used. The authors report positive student reactions and increased engagement in learning.


This article offers an empirical analysis of student preferences on assessment methods, based on data from the author’s online trusts and estates course. The course includes formative assessment methods such as discussion boards, multiple-choice quizzes, and polls. The data from midsemester anonymous course evaluations showed that students preferred online quizzes, with discussion boards being the least favorite assessment method. Ryznar concludes that these results can be used to build assessments that maximize student learning.

**Clinical and Experiential Legal Education**


In this book chapter, the authors argue that legal education reform is critical to prepare law students to work as legal knowledge managers. They propose a clinical model that adapts adult learning theory and simulation principles to virtual simulation learning environments. They also present a case study of a Virtual Law and the Arts Clinic, which is a joint venture between the DuBois University School of Law, School of Engineering and Computer Science, and School of the Arts.


This article reports on a human rights practicum, an experiential course offered at the University of Tennessee College of Law in 2015. Participants were trained to use Access to Justice Author (A2J Author) software with virtual clients to lower barriers to justice for self-represented litigants. The authors describe the curriculum, course goals and learning outcomes, and technology training. They also explain the challenges related to running the project and lessons learned for future iterations.

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Two of the article’s four authors discuss how they have incorporated technology into teaching. Cooney explains how third-year law students have been prepared for a transactional clinical experience through an online classroom environment. She also addresses advantages, disadvantages, best practices, and plans for future iterations. Karp describes the WebCT course environment and aspects of course website design.


See infra p. 420.


The authors explain how their Lawyering in the Digital Age clinic teaches Columbia Law students the technological skills needed for law practice. The authors delve into the intersection between modern IT and knowledge management, explaining how students use A2J Author software to convert tacit expert knowledge into explicit information. They conclude that students learned to master substantive and procedural law, to appreciate the legal needs of an underserved population, and to use technology to assist that group.


In this article about law school innovation, the authors discuss clinics that teach students how to use technology to represent clients and deliver services online to unserved clients. They identify several examples of law school technology clinics, observing that such programs enable students to create and use software applications that serve low- and moderate-income people and allow clinical teachers to connect with classroom IT teachers and scholars.


At Suffolk University Law School, Lauritsen teaches Decision Making and Choice Management, a course focusing on the influence of IT on effective decision making. Students are exposed to legal knowledge engineering by creating software applications that assist professionals or laypersons with legal decisions. The premise for the course is that students can learn to think like lawyers by teaching machines to think like lawyers. The author reports that student reactions have been resoundingly positive. An appendix provides excerpts from the course syllabus.


The Apps for Justice Project at Maine Law School was developed to address an access-to-justice crisis. This article explains how the project creates apps that enable low- and moderate-income consumers to address their legal problems. The project also allows practitioners to handle more of these clients by shifting

8. *Id.*
routine work to an algorithm. The authors close by discussing their new course, the Apps for Justice Lab, in which regular classes of law students will continue building and maintaining these apps while learning to practice law with developing technology.


This article describes a four-year project developing and teaching ODR to law students in the Second Life virtual world environment. The author explains virtual world platforms, including their application to ODR. After detailing the development of a virtual mediation clinic, Seielstad assesses teaching and learning experiences and discusses course preparation, financial costs and risks, and technological challenges. She also explains the advantages of teaching ODR in Second Life and the ways in which virtual worlds may enhance the teaching of skills courses.


The Virtual Law Placement Unit at QUT offers students the opportunity to complete an authentic workplace team project using online technologies to communicate with their supervisors and each other. After explaining the flexible learning environment, the authors discuss the project’s success in placing students in a range of national and international workplaces and projects without the traditional constraints of physical placements.


This book chapter describes the Apps 4 Justice project, a law school initiative that teaches law students to use emerging technologies while extending access to justice. The author describes his own Justice and Technology Practicum at IIT Chicago-Kent School of Law, a hybrid classroom and clinical offering in which law students built web resources for low-income litigants. He also discusses the possibility of extending the project with new partnerships between law schools and legal aid organizations.


At IIT Chicago-Kent College of Law, the Access to Justice (A2J) Clinic teaches law students to use law practice technologies while lowering barriers to justice for low-income people. Clinic students use the A2J Author software to build A2J Guided Interviews for use by legal aid organizations. Through this clinic, faculty at six other law schools collaborate with a CALI team to develop course kits so that other schools can develop similar courses. The authors close by describing plans to increase the number of these clinics in law schools nationally.


As part of its larger discussion of curricular reform, this paper briefly describes QUT’s Virtual Law Placement, an internship program that allows law students to
engage in a virtual workplace. Using communication technology, they complete real-world tasks under the direction of local, national, and international supervisors.


Thanaraj proposes that law schools incorporate a digital lawyering framework into their curricula to prepare students for law practice technology. To this end, she discusses the Virtual Law Clinic at the University of Cumbria, an online experiential learning program in which students undertake an entire legal transaction with ongoing opportunities for performance, feedback, reflection, and evaluation. She also explains how the clinic prepares students to tackle emerging technology trends and use technology to deliver legal services.


At the University of Cumbria, the Virtual Law Clinic teaches students to use technology to deliver legal assistance to underserved, lower-income populations. This article describes the online clinic’s learning outcomes, operations, design principles, technology framework and interface, and client portal. The authors discuss challenges involved in designing and implementing a virtual law clinic, and make recommendations for security and sensitive data management. They also outline plans for future research and the direction of this project.

**Distance Education and Distance Learning**


This document, a collaborative effort of the AALS Work Group of Distance Learning for Legal Education, offers guidance to all members of the law school community involved in DL programs. Topics include student services, student engagement, delivery methods and practices, educational theory and technological resources, training and management, intellectual property, business and financial models, netiquette, and evaluation of technology.


This paper was written as a collaborative project by the AALS Work Group of Distance Education for Legal Education. Topics covered include a summary of current practices; an examination of synchronous and asynchronous education; consideration of platforms, pedagogy, and delivery tools; training; assessment; institutional integration and administration; intellectual property rights; business and financial models for schools considering DL programs; and institutional and accreditation concerns.

This paper discusses the online JD program at RMIT University in Australia. The author first overviews the program and key principles associated with teaching law to online students, pointing out that DE must promote deep learning and maximize student engagement, active participation, and collaboration. He then highlights some of the online courses taught in the JD program, demonstrating how the teaching and assessment practices in these courses enhance deep learning and practical skills.


The first MOOC offered by Northwestern University Pritzker School of Law was designed to inform entrepreneurs about the legal issues involved in developing, launching, and building their businesses. The authors discuss the challenges encountered and lessons learned in designing and teaching a course to thousands of students in 189 countries. Benefits include branding and marketing opportunities, increased alumni outreach, the ability to explore new teaching methods, and the opportunity to acquire new technical skills. They close with a brief discussion of their plans for future iterations of this and other MOOCs.


This article reports on the results of a qualitative data analysis of American online master of legal studies (MLS) degree programs, conducted to evaluate their practical utility and enhance public access to legal assistance. The investigation revealed that the only reason for the presence of MLS degree programs within the legal academic marketplace is to prepare graduates for employment involving complex legal duties. The authors identify two broad domains for future inquiry: (1) the lack of information about e-learning within American legal academic programs, and (2) the study of strategic alignment of all levels of legal education to determine whether modifications to any of them could increase access to justice.


Bennett outlines DL developments in legal education and discusses the benefits of DL. He posits that the ABA’s limitations on DL would best be challenged by demonstrated measures of its success within law schools. Until the ABA changes its rules, however, he suggests ways for law schools to foster DL, including paralegal training, nondegree certificate programs, and programs for foreign law students.


The authors, who taught public health law seminars at different law schools, collaborated to design an interactive course connecting students with public health professionals in their communities and with law students more than 1000 miles away. Students used videoconferencing to work with peers at the other law schools, to teach one another about their public health laws, and to present their research. This article describes the class, examines its pedagogical rationale, and recommends areas for improvement.

At the University of New England in Australia, the online Indigenous Australians and the Law course was redesigned as a dynamic online learning community to help law students develop the communication and collaboration skills required for law practice. This article reports on that program and analyzes student survey data, indicating that the majority were satisfied with their online collaborative experience. The authors also discuss factors to consider when including online collaboration in course design.


This student author argues that online law schools provide an opportunity to increase the economic diversity of the legal profession, democratize access to legal services, and ensure the competence of graduates. She discusses both the barriers faced by online law schools seeking ABA accreditation and state bar admission for their graduates and the criticisms of online legal education. She also offers a proposal for the legal profession to embrace online law schools while ensuring the integrity of the profession.


This guidebook is written for beginners in the online teaching universe. It introduces law faculty to the ABA DL standards; explains how to design, teach, and administer an online course effectively; and advises on issues such as assessment and satisfying promotion and tenure rules.


Rapid changes in the legal profession require legal education to adapt and change. This article examines the importance of xMOOCs for delivery of information-based content in law schools and underscores the obstacles to innovation placed by the national regulatory scheme and bodies responsible for admission. The authors caution that, if Australian law schools are unable to meet the needs of a digital legal profession, this need will be filled by international universities and private organizations. They call for legislation and guidelines to be revised so that Australian law schools may embrace the 21st century.


Arguing that law school curricula must adapt to meet the demands of digital natives, the authors discuss the use of MOOCs in legal education. They argue that current trends in online DL will require legal educators to consider MOOCs to deliver a variety of courses, market courses to potential law students, and enhance student success rates with additional learning resources. They also address challenges faced by teaching staff and offer a short guide to setting up a MOOC using a university LMS.


This article reports on a survey of Australian law schools revealing widespread adoption of blended DE and e-learning approaches by individual law professors.
However, progress was hindered by a lack of any systemic approach to educational design and digital resources across entire law teaching programs. Noting that Australian law schools had not yet addressed the challenges of mobile learning, data analytics, and MOOCs, the authors recommend further research into these methodologies.

Collins, Pauline. “Inclusive Team Assessment of Off-Campus and On-Campus First Year Law Students Using Instantaneous Communication Technology.” Law Teacher: The International Journal of Legal Education 44, no. 3 (2010): 309–33. The author relates her experience designing and delivering a first-year course to on-campus and DL law students at the University of Southern Queensland. Her article focuses on the use of web conferencing tools for online team debates and assessment of oral communications and critical thinking skills. Collins also explores teaching and learning goals, effective delivery of course materials, and course outcomes. She concludes that the course increased student-teacher interaction and created a positive online learning environment.

Dewhurst, Dale. “The Case Method, Law School Learning Outcomes and Distance Education.” Canadian Legal Education Annual Review 6 (2012): 59–85. This article considers whether hybrid education blending DE technologies with in-person and/or synchronous interactions can satisfy the learning outcomes and pedagogies of legal education. After examining successful DE programs in other disciplines, Dewhurst reviews scholarly legal literature and offers ideas for online and hybrid learning activities. He concludes that distance and hybrid programs can achieve the traditional goals of legal education and respond to social policy criticisms of the case method in ways that in-residence legal education cannot.

Hamilton, Jenny. “Emerging Technologies and Their Implications for the Concept and Role of the Law Academic.” Journal of Commonwealth Law and Legal Education 10, no. 1 (Autumn 2015): 45–59. Focusing on MOOCs, the author explores the manner in which emerging technologies and managerial professionals are redefining professional boundaries and challenging the traditional authority of legal academics over pedagogy. After outlining the reasons for this phenomenon, she explains how MOOCs offer opportunities to unbundle the legal academic profession and bring new skills and knowledge to legal education. Finally, she considers the implications of this shift in authority for legal educators.

Hammond, Celeste, Virginia Harding, and Cynthia Adams. “Online Learning and Transactional Skills Courses.” Transactions: The Tennessee Journal of Business Law 18, no. 2 (2016): 521–40. This article transcribes the authors’ presentation at the Fifth Biennial Conference on Teaching Transactional Law and Skills. Hammond discusses how she integrates transactional skills into five online business law courses. Harding discusses the development of assignments for an online advanced real estate course. Finally, Adams shares ideas for creating online, synchronous exercises to use in a classroom course, in a blended course, or in a fully online course.


This article explores online learning in American law schools. After considering the ways in which online learning can improve law school pedagogy and drive other innovations, Huffman discusses course design, quality control, and his own experience teaching comparative and international competition law online. He also explains the McKinney Law Online initiative, which is guided by a faculty director of online programs, with staffing, technology resources, and grants for program development. He predicts that these innovations will improve educational outcomes while reducing costs.


The author discusses his experiences teaching one antitrust course online and moving certain lessons in a traditional antitrust course out of the classroom and online. He notes that these innovations have resulted in increased enrollment in his courses, as well as reduced cost, expanded breadth and depth of coverage, better ability to monitor student progress, and increased sophistication in final exam answers.


Johnson conducted a classroom assessment study in a business planning course and a telecommunications seminar to validate or refute theories about the effectiveness of DL. Her preliminary findings revealed that, when levels of interaction and contact hours between students and the professor are adequate, there is no significant difference in the nature or quality of the online and traditional classroom experiences. Johnson concludes that technology can be effective to supplement classroom learning.


The author discusses his experience teaching an employee benefits law course in an asynchronous online environment. He explains his template for the class, his use of assessment and formative feedback, and some advantages and challenges of teaching an online class.


Lansdell investigated the use of online programs used to train law school graduates for admission to practice in Australia, focusing on the program at Monash University. Querying whether students can learn important professional skills and values in an exclusively online format, she advocates a blended approach
incorporating some face-to-face time. She also proposes best practices for future online programs.


The authors explore the use of virtual educational spaces to support experiential learning in Australian legal education. Their article focuses on ANU’s professional practice course, which is a simulated transactional learning environment taught online as a prerequisite for admission to law practice. They argue that further innovation has been hampered by Australia’s regulatory regime, which they compare to the ABA’s regulation of U.S. law schools. They conclude by considering the implications of their approach for the future of regulation in Australia.


At the University of New South Wales, a peer mentoring program was developed to address the high attrition rate of distance law students. The authors report that the program provided necessary support as mentees learned to balance the competing demands of work, family, and study. It also improved their learning approaches and helped them integrate into the university.


Martin reviews the access barriers imposed by the ABA’s DL standards, including expenses, opportunity costs, and the burden of commuting or moving to attend law school. After discussing Concord Law School’s lower tuition and the success of its graduates, he calls for the ABA to replace current rules with assessments of educational efficacy. He also encourages law schools to expand opportunities for online courses within current DL standards. Finally, he cautions against ignoring successful models of professional education in other fields and in law schools without ABA accreditation.


See infra p. 428.


The author recounts his experience using videoconferencing to teach a comparative and international indigenous rights course. Morse credits innovations in DL technologies that have made transcontinental co-teaching possible. After explaining how he integrates videoconferencing technology with a course website, he considers the benefits and drawbacks of this approach. He concludes that the challenges of technical failures and scheduling across hemispheres and time zones are far outweighed by the advantages of having students interact in real time with professors, classmates, and foreign experts worldwide.

When Vermont Law School offered distance versions of its master’s programs in environmental law, the author was required to adapt his environmental dispute resolution course to an asynchronous DL platform. In this article, he describes course development, organization of modules, online materials, and instructional methods. He also offers his observations about the advantages and limitations of using DL technology to teach negotiation skills.


Since 2000, NYLS has offered an online program in mental disability law to its students, students in other U.S. law schools, and mental health professionals, students, activists, and advocates. Working in partnership with other U.S. law schools, NYLS has also offered its courses in an online DL format with universities in Nicaragua and Japan. Perlin explains how this program has enabled NYLS to work with advocates in other nations to effect progressive social change in mental disability law and social policy.


CopyrightX is a copyright law course offered at Harvard Law School to Harvard Law students, non-law students, and distance students from institutions worldwide. At National Law University Delhi, an affiliated institution, the author taught a comparative law version of CopyrightX. He explains how the course merges components of MOOCs with traditional classroom instruction. He also analyzes pedagogical implications and identifies considerations for designing similar courses in other subjects. He concludes that educators can democratize access to knowledge without compromising the quality of learning and instruction.


Arguing that MOOC technology will dilute legal education and accelerate the demise of traditional law schools, the author calls on academics to consider ways in which MOOCs can support legal education. He discusses their rapid development, the search for a profitable business model, and the debate over awarding academic credit for MOOC courses. He also suggests that law schools may survive the current economic crisis by incorporating MOOCs into their curricula while retaining the unique characteristics of their own educational models.


*See supra* p. 337.

As law schools begin to provide a variety of degrees to diverse educational groups, they will increasingly turn to online education to deliver these nontraditional programs. The author discusses critical issues in developing and operating a successful online program, including institutional support, curriculum development, faculty selection, and administrative oversight. He concludes by explaining the lessons that traditional legal education can learn from these online programs.


The authors explain the challenges faced by the National Open University of Nigeria in delivering its LL.B. program in an online DL environment. Specifically, they explain how online and physical teaching and learning environments are blended to overcome the difficulty of teaching legal skills online. They conclude that legal education regulatory bodies should refocus their efforts on standards rather than on mode of delivery.


This article evaluates the experience of videoconference teaching in a comparative indigenous law course delivered simultaneously to law students in Australia, Canada, New Zealand, and the United States via interactive videoconferencing technology. The authors, who form the teaching team, analyze the advantages of the course and review the dynamics and logistics of teaching and delivering the course to multiple global sites. Their goal is to share their experience so that other law professors may consider the suitability of videoconferencing for international and comparative law courses.


See supra pp. 337–38.


In 2015, the author designed and taught her law school’s first completely asynchronous doctrinal course. After discussing her pedagogical goals, design choices, and challenges, she compares the online and brick-and-mortar experiences. Reporting the results of a student survey, she concludes that students were as satisfied with this course as with any traditional law course in terms of comprehension, preparation time, difficulty, professor contact, and assessment methods.


Swift argues that asynchronous online courses can be evaluated by the same criteria as brick-and-mortar courses, using the Seven Principles for Good Practice in
Legal Education. Drawing on his own experiences creating and teaching online law courses, he reviews and applies each principle to online legal education. He concludes that asynchronous online courses have many advantages over brick-and-mortar courses, particularly in the critical principles of active learning, cooperative and group exercises, and prompt, formative assessment.


Van Detta discusses the benefits of online LL.M. programs for foreign-educated lawyers, which include teaching them about the American legal tradition and enhancing their thinking about the rule of law in their own nations. In making these arguments, he criticizes the academy’s resistance to online coursework. He also explains his process for converting brick-and-mortar courses into online LL.M. counterparts and considers how an American law school might structure such a program.


This article examines an online teaching and e-learning environment developed for a taxation law course at an Australian university. After examining the planning, design, and delivery of the course, which was taught in a wholly online setting, the author concludes that online teaching and learning offers opportunities for sustained reflection and provides a cognitive, social, and teaching presence that emulates face-to-face teaching. However, she also cautions that it decreases the instructor’s social interaction with colleagues and compromises academic autonomy.

**Doctrinal Courses**


Baier reports on his experience using the Oyez Project as a teaching tool in his constitutional law school classroom. He provides examples of classroom use of sound recordings of Supreme Court oral arguments and suggests ways in which other law professors can use these recordings regardless of subject matter.


In Blissenden’s revenue law class, students are required to identify significant facts in reported cases, use the web to investigate the historical and social aspects of the litigation, and discuss these findings in class in light of the court’s legal reasoning. Using a specific tax case to illustrate his method, he explains how the process stimulates critical evaluation of the manner in which a case has arisen and appreciation of the underlying rationale for the court’s decision.

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Glasgow Caledonian University used virtual seminars in an LL.B. module on healthcare law and ethics. Problem-based learning scenarios were released weekly on Blackboard, using asynchronous discussion boards. The goal was to increase student participation and cooperation and provoke thoughtful discussion. After reviewing the methodology and reporting on the results of data collection and evaluation surveys, the author concludes that the shift to self-directed learning has improved students’ ability to answer complex problems.


See infra p. 399.


A law professor and her student assistant report on an experiment using Second Life in a first-year property class. Working in groups, students investigated the operation of virtual property in Second Life as they analyzed and applied concepts such as easements and adverse possession. This article documents the genesis of the experiment, mechanics of the project, and findings of students. It concludes with suggestions and potential directions for future iterations. An appendix reproduces the experiment as presented to the class.


This editorial considers, among other things, how new technologies could enhance the teaching of international law. The author discusses the use of videos to reinforce learning, social media to encourage participation, virtual platforms to ensure a constant flow of documents and communications, and online teaching to democratize access and provide students with a virtual space to exchange views, materials, and experiences. He recommends that law schools explore these technologies and reward faculty seeking to use them.


This article explores advantages and challenges in teaching cyberlaw courses. Goldman discusses digital artifacts, experimentation with online interactive components, integration with ethics and transactional drafting, evaluation methods, and reading materials. An appendix provides a bibliography of teaching materials.


In the first part of this article, the authors discuss topics such as laptop use and adoption of a multimedia textbook for a criminal procedure course. In the second part, they explain the advantages of using multimedia teaching materials in the classroom, including selected criminal procedure modules found on their Crim-prof Multipedia website.

This article discusses teaching law school courses with the PACER system and both student and instructor e-writing projects relating to that system. The author explains how students use PACER for a Chapter 11 bankruptcy seminar project in which they access the docket, pleadings, and other documents in a case. He reports that student feedback has been positive.

Lanctot, Catherine J. “Becoming a Competent 21st Century Legal Ethics Professor: Everything You Always Wanted to Know About Technology (But Were Afraid to Ask).” Journal of the Professional Lawyer 2015: 75–118.

As technological competence becomes increasingly important for lawyers, legal educators must prepare law students for their future in law practice. This article explains how to revise a traditional legal ethics class to respond to modern law practice and details the technological issues currently affecting lawyers, including use of LegalZoom and Rocket Lawyer, marketing through social media and Groupon, and the operation of virtual law firms that cross state lines, to name but a few.


Mason sketches a proposed syllabus for a course on electronic evidence. Such a course would cover the following: the nature, definition, sources, and characteristics of electronic evidence; doctrinal law; and investigation and forensics. He also includes materials and exercises suitable for this course.


This article addresses the use of an E-Comment writing assignment that prepares law students for growing practice areas dominated by regulations. The author explains how the E-Comment assignment teaches substantive law, reinforces persuasive writing skills, exposes students to the rulemaking process on regulations.gov, and offers them an opportunity to engage in the e-rulemaking process and have an impact on a legal outcome. The article closes with a checklist for E-Comment exercises.


O’Brien explains how she transformed a traditional evidence class into an interactive experience, using music, presentations, and video clips to introduce problems for class discussion. A course website is used to operate an assessment exercise in which students write a court submission on an evidentiary issue. The choice of teammates, scheduling of arguments, and collaboration are all facilitated by an online program. The author concludes that these methods have promoted active learning and made the course more enjoyable for students and professor alike.


Cyberlaw is a rapidly changing area that presents curricular and coverage challenges for those teaching in the field. Quirk discusses the 10 cyberlaw themes that withstand the test of time: jurisdiction, agency, payments, risk transfer, security,
taxation, crime, history, privacy, and intellectual property. He also proposes an advanced set of subtopics for future iterations.

Rowberry explains how he structures his Anglo-American legal history seminar around the digitized primary sources available to law students. He provides examples of how he uses these sources, discusses positive student feedback, and identifies refinements that he plans for the next iteration.

The author illustrates how he uses case-related limericks to supplement classroom instruction in his contracts course. Posting limericks online twice per week, he challenges students to identify the case and to state the rule of law illustrated by the case. He explains how his TWEN discussion forum, “Poetic Justice,” encourages first-semester students to learn about the poetic side of contract law as they attempt to formulate rules of law derived from leading cases.


See infra p. 407.


See infra p. 387.

This article addresses the author's experience using images and sounds to illustrate litigated cases and hypotheticals in an intellectual property class. Tushnet discusses both the effect of these audiovisual materials on teaching and the copyright issues involved in using digital materials in class.

In a comparative law course at UWA, students were required to create one *Wikipedia* entry on a relevant topic and to review another entry. The author describes the assignment's pedagogical goals, its integration into the course teaching and assessment structure, and its positive student responses. He offers guidance on using *Wikipedia* assignments to improve students' computer and media literacy, instill a critical approach to Internet resources, and prepare students for cross-cultural and collaborative law practice.

The author argues that evidence courses should include specific education on electronic evidence. She advocates teaching law students that the use of electronic evidence in litigation is more than a collection of discrete rules; it is a complete process with equal emphasis on collection, forensic examination, preservation, admissibility, and presentation. Wong concludes that this approach will provide an intellectually rigorous course that properly prepares students for the realities of contemporary law practice.

This paper advocates teaching ethics in a financial services law course by blending face-to-face and online case studies and computer-mediated interactions. The author argues that this approach is justified by the ICT experiences of a new generation of students and the limitations of both conventional teaching methods and stand-alone legal ethics courses.

**Information Literacy**


Beljaars argues that the rapidly changing digitized environment of law practice, which interweaves legal skills and legal literacy, requires information literacy to have a separate and distinct place in the curriculum. To this end, he calls for law schools to foster close cooperation between faculty and law libraries and to offer a postgraduate law degree that gives a central role to information literacy.


Dalton explores the effect that the digital divide between millennial law students and their educators has had on the educational model in legal research and analysis. She advocates teaching traditional research before digital research to create information literacy and provide a foundation for understanding the law’s structure and hierarchy. Once a law school has laid this groundwork, its faculty should teach digital research to expand and supplement research with all available tools.


See infra p. 374.


Maharg explains the processes of fragmentation and convergence in legal education. He calls on legal educators to acknowledge the changing relationship of legal information literacies, legal informatics, and legal writing, and the ways in which their convergence in a new legal subject could significantly improve the educational effects of the individual parts in legal curricula. He offers two brief case studies as models for such convergence and concludes with practical guidelines for the design of law school curricula.


Law schools face challenges in preparing graduates to adapt to new and evolving technologies in a change-resistant profession. After discussing how technology has changed LRW, the authors argue that legal educators should consider infor-

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information literacy as a metacognitive approach that will teach law students to adapt existing learning to new situations and to use any tools, even those that have not yet been invented.


The authors examine the gap between generations of legal researchers, cautioning that audience awareness must be taught along with information literacy strategies. In other words, law students must learn the best way to communicate research results to various audiences in an ever-changing landscape of electronic legal research.


In order to teach students the skills needed in an evolving research environment, the authors advocate focusing on information literacy in the LRW classroom, rather than on specific research techniques or finding tools. They also discuss five principles to follow when teaching with an information literacy paradigm.


The authors argue that the changing online landscape requires a new paradigm for legal research pedagogy, based on information literacy rather than bibliographic and process-based techniques. They report on their survey of students entering law school to assess their information literacy and approaches to research. They explain how to use their findings to teach legal research to reflect student abilities, yield high-quality legal research, and develop skills and strategies that can be transferred as technology evolves.

Interviewing, Counseling, and Dispute Resolution


See infra pp. 398–99.


QUT uses two learning environments to provide instruction in negotiation theory and practice. The program extends a common narrative from first-year contracts, using Air Gondwana, to second-year trusts, using Mosswood Manor. Class components are blended with online components that use computer graphics to illustrate the story. The authors report that this strategy has offered an effective, engaging, and challenging learning experience to a diverse body of students and that the common narrative provides a familiar environment to advance student learning.

11. See infra pp. 399, 401.

Panelists discuss how and why to design a transactional drafting course that includes a variety of other skills in addition to drafting. Pertinent topics include using podcasts and movie clips in an interviewing and counseling course.


At RMIT, an online fishbowl role-play was used in a blended learning design to teach students about gender and power concerns arising in mediation. The authors discuss the e-learning theory supporting this approach, which enables students to learn both skills and theory in face-to-face and online environments. This article explains the components of the program, including a discussion board, the role-play simulation, and a reflective journal, but does not evaluate this learning and teaching strategy.


Goldberg argues that doctrinal courses should be supplemented with ODR practice to accelerate the profession's slow acceptance of changing technologies. Additional reasons include providing law students with practical skills for settling cases in a globalized and technological world, creating a more challenging law school curriculum, and complying with suggestions offered by the *Carnegie Report* and the *Best Practices for Legal Education*.12


This book chapter explores the University of Portsmouth's use of videotaped simulations to complement doctrinal study and traditional teaching methods. The author explains how the interview and negotiation simulations were conducted and concludes that videotaped role-plays provide a cost-effective means of exposing students to practical lawyering skills.


Hewitt describes and evaluates Adelaide Law School's use of interactive online teaching to supplement face-to-face teaching in a dispute resolution and ethics course. The online learning platform provided learning analytics data, which Hewitt combines with a student survey to evaluate the effectiveness of the online tools. She concludes that online learning provides a valuable supplement to face-to-face learning but is no substitute for live experience.

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Students at two Canadian law schools participated in a negotiation simulation, using only email to communicate. When the exercise ended, each participant submitted a transcript of the negotiation, summarized key outcomes and agreements, and received feedback from peers and professors. Using excerpts from student journals, the authors conclude that the simulation addressed some shortcomings of classroom role-playing and deepened both the learning and the teaching experience. Because of its success, the experiment was expanded to include more than 200 law students from four Canadian universities.


See infra p. 374.


See infra p. 401.


This article describes a pilot project of an ODR simulation across two continents and three time zones. The project sought to expose law students to ODR, using various technology-based dispute resolution processes, to demonstrate the potential for technology-supported collaboration across distances, and to promote experiential education in a controlled learning environment. The authors discuss the benefits and drawbacks of ODR and describe the student simulation, which offered students an opportunity to understand the issues surrounding technology, dispute resolution, and access to justice. They conclude with recommendations for future directions and research.


Law students from Macquarie University and University of Tasmania faced each other in an email negotiation involving a commercial dispute. Students were required to maintain a negotiation log and a reflective journal and complete a debrief questionnaire. Evaluating the results, the authors discuss technological problems, communication delays, skill differentials, and the difficulties of building relationships online. They conclude, however, that the online medium does not prevent effective negotiation, and the technology will eventually resolve the inhibitive elements.


To improve skills development in a large negotiation course, the authors required students to use webcams to video-record their negotiation exercises. Annotation
software allowed students and professors to comment on segments of the recordings. The authors discuss pedagogical advantages, difficulties, and limitations of this method. They conclude that the significant improvement in negotiating skills is attributable to immediate feedback to students with opportunities to correct errors and practice until the tasks become routine.

**Law Practice Technology**


The author discusses the need to teach an experiential learning course addressing the impact of information on law practice technology. Using her own experience developing and teaching such a course, she explains the development of a syllabus and learning outcomes, choice of faculty and instructional techniques, assessment methods, and student feedback. Because both students and faculty enjoyed the experience, she committed to teaching this class again.


To close the gap between the use of technology in legal education and law practice, Canick recommends adapting existing courses to include training related to e-discovery, presentation skills, communication and collaboration, marketing and social media, hardware and software, legal research, and case management. He also proposes methods to encourage law faculty to teach with technology and to align such teaching with the practices of successful attorneys.


This article seeks to help law professors and students understand the significance of online influence spaces, including texting and social media, in addressing problems that occur during a legal career. Using a series of case studies and models, the authors examine the ASILForum listserv, the Volokh Conspiracy blog, and the Obama Open Government Initiative to illustrate how new online interactions affect individuals, how individuals influence others in these online spaces, and how these online spaces affect dispute resolution processes.


Dolin recounts his experience teaching legal technology and informatics at Stanford Law School. The course seeks to explore the ways in which legal technology is transforming both the practice and nature of law and the current trends and future possibilities of this transformation. It also strives to help law students understand how to examine legal problems from a computational and engineering perspective. Dolin provides detailed explanations of each of the nine sessions.


A retired U.S. magistrate judge addresses the ethical and professional consequences of technological incompetence in the legal profession. He urges law schools not only to educate students about new ethical obligations relating to technology, but also to teach the technological knowledge and skills needed for law practice. To this end, he discusses several teaching models, including technology boot camp, quasi-clinical experiences, and dedicated technology exercises in all courses.

This book chapter addresses the teaching of litigation technologies. The author explores issues relating to electronically stored information, e-discovery, case analysis software, and trial presentation methods, arguing that law schools should address these issues in litigation technology courses. He also includes a detailed outline of a computer-assisted litigation course and explains the course goals, pedagogy, methods, and assessment.


Because e-lawyering has expanded an otherwise shrinking job market, Goodenough proposes that law schools adopt an e-curriculum that teaches the technological skills necessary for modern law practice. This curriculum would offer both specialty courses that develop specific legal technology skills and across-the-curriculum inclusion of technical instruction in doctrinal courses. His analysis is rooted in three principles: value added, values added, and economic sustainability.


Arguing that current labor market conditions require graduates to understand law practice management and technology, the authors urge legal educators to teach students about (1) the selection and use of client portal web applications, collaboration technologies, and online payment systems; (2) the process of designing information architecture for law firms; (3) the use of social media and online marketing for client development; and (4) the ethical rules applicable to the use of legal technologies.


Hibbitts laments the legal profession's limited grasp of technology and offers suggestions for teaching Internet literacy to law students. He briefly describes Neteracy for Lawyers, a course that he taught at the University of Pittsburgh School of Law, and explains how JURIST provides a “neteracy lab” for its law student staff. He suggests that law librarians are best suited for developing online information spaces where law students have opportunities to work collaboratively with new technology.


The author calls for law schools to include a course in law practice technology as part of their curricula to expose law students to all applications of technology used by attorneys. He describes the law practice technology seminar he initiated at Regent University School of Law and discusses technological and pedagogical challenges faced. The appendix includes a sample syllabus.


The authors argue that requiring law students to use legal apps advances pedagogic goals and prepares them for the challenges of 21st century practice. By
way of example, they explain how students in a Georgetown University Law Center class on technology, innovation, and law practice used Neota Logic and A2J Author software to build web-based applications in various fields of law. In designing these apps, students learned legal analysis, empathy, and plain language authoring while learning to think about legal regimes as systems.

As its title suggests, this book chapter surveys courses at American law schools that teach the technology used in law practice. The author found that law schools have been slow to adopt courses teaching the technology of law, which are vastly outnumbered by courses addressing the law of technology.

RMIT University taught advocacy and negotiation by using online tools, such as wikis and blogs, for preparation, role-playing, and debriefing. After examining empirical data from two case studies, the authors suggest four implementation concerns for legal educators to consider before blending role-plays with Web 2.0 options: (1) evaluating the learning context; (2) identifying learning outcomes; (3) choosing relevant online tools; and (4) engaging in reflection and feedback.

Legal Research, Writing, and Analysis

Abramson reviews the challenges of using Moodle and CALI to teach international legal research at John Marshall Law School. She also discusses the successful use of Adobe Connect Pro to facilitate a virtual guest lecture by a Canadian law librarian.

This article discusses the process of developing an online advanced legal research course. Ahlbrand explains the course goals, instructional materials, readings, and assessments, and addresses issues presented by its asynchronous approach. She also discusses the technology used for chat sessions, video recordings, and assessment. Student response was overwhelmingly positive. The article closes with a sample syllabus.

City Law School London uses Learnmore, a legal skills wiki that provides multimedia tutorials for mooting and LRW. The author presents a case study of Learnmore, covering its use of media, development of its content, visual branding, and peer-learning community elements. She also examines the practical and pedagogical aspects of using technology to aid legal learning. Plans for a Learnmore iPad app were nearing the end of development at the time of writing.

This brief article considers how technology has changed the way we conceptualize the law, both in our search for authority and in what courts will accept as authority. The author concludes that these changes require an active legal research classroom that offers hands-on learning experiences, with simulation-based and problem-solving approaches that mirror the use of technology in law practice.


A survey of Australian law students revealed that 78 percent were using *Wikipedia* for legal research. To support their argument that Wikipedia is an acceptable tertiary research tool, the authors consider its purpose, procedures for controlling accuracy, literature about its use as a teaching and learning tool, and empirical research that student use of *Wikipedia* is inevitable and unavoidable. They recommend instructing students in the discerning use of *Wikipedia* and encouraging academics to contribute to the site.


This brief article describes the authors’ “checklist-find” revision approach, which enables law students to identify and revise their legal documents by using their word processors’ find function. The authors discuss the benefits and limitations of this technique and explain how it might be used in a legal writing course. They also provide a sample starter checklist to use in the classroom.


A legal writing professor and a librarian at George Washington University Law School discuss how they partnered with academic account managers to incorporate LexisNexis and Westlaw training sessions into the first-year LRW curriculum. They discuss the process of designing the program to reach their pedagogical goals, identify the benefits and challenges of working with account managers, and conclude with considerations for sustaining a successful partnership.


At Western Michigan University Cooley Law School, a virtual writing center was created when plans for a physical legal writing center fell through. The author details the vision and mission of the center, goals and learning outcomes, assessment challenges, and selection of an online platform and resource components.


Collins discusses the use of VRS to assist students who experience particular writing challenges, including writer’s block, physical or learning disabilities, or Eng-
lish as a foreign language. She explains how VRS can be used in the four stages of writing identified by Flowers in 1981 and makes recommendations for adopting VRS in the legal writing classroom.


A student author examines Ian Gallacher’s proposition that law schools are uniquely situated to respond to the problem of limited access to the law. She also discusses which resources used in an advanced legal research course have open access substitutes equivalent to commercial research databases. Finally, she considers how Gallacher’s 10 principles for the open access movement satisfy the objectives of a legal research course and the law school’s mission.


Librarians at the University at Buffalo School of Law developed an orientation program to help students learn the document formatting skills needed for legal writing classes. The author discusses the program’s development, use of follow-up instructional videos, expansion into practice-related training for upper-level students, and positive feedback. He also outlines plans to expand to other areas, including Adobe Acrobat and other features of the Microsoft Office Suite.


As part of the persuasive writing component of their LRW course, first-year students were required to write an email settlement offer to opposing counsel. The authors explain the design and implementation of the assignment, as well as the advantages of using an email settlement offer to introduce students to negotiation skills and settlement strategies.


This brief essay explains how the author uses a smart podium and projector to create an active classroom environment in doctrinal and legal writing courses. The “live write” process involves engaging students in activities such as articulating a rule of law or writing a thesis sentence. Advantages include fostering a collaborative learning environment, overcoming the fear of technology, and providing formative assessment information to the instructor.


See *supra* p. 329.


In 2012, the author and his colleagues produced two videos showing initial attorney-client interviews for use in Syracuse University College of Law’s Legal Communication and Research program. This article explains the program, the video production process, and the direct and collateral benefits of using videos as an alternative to traditional narrative description. He also addresses disadvantages and offers advice on video production, concluding that this approach can stimulate and energize students and faculty.


Gallacher addresses the possibility that computers might generate many of the documents typically written by lawyers. This, he states, requires legal writing faculty to consider which qualities distinguish human writing from a machine-generated product. Because computer-generated writing programs lack the human ability to anticipate and meet the reader’s needs and expectations, he concludes that the human-generated document will be superior to a technically accurate but nonempathetic computer-generated document.


With the introduction of legal research apps for smartphones, the author advocates integrating and harnessing their power effectively into legal research courses. His article explores smartphone attributes, samples legal research apps, and offers practical suggestions for creating and incorporating mobile legal research exercises into coursework and an overall research strategy.


The author surveyed law students about their summer research experiences to understand how much importance their employers placed on containing online research costs. After analyzing results, she concludes that the emphasis on cost control may depend on the size of the employer. She suggests that there may be less need to emphasize cost-effective research at law schools where a large percentage of students go on to work at smaller law firms and government organizations.


Gustafson dispels fears that use of “text-speak” erodes the ability of law students to use writing to solve problems. She explains that students are constructing dual literacies and adapting language to fit the purpose and audience of their message. The greater concern, she claims, is that texting may be narrowing vocabulary and weakening the depth and precision of legal analysis. She recommends that faculty help law students learn to address the expectations of a discourse community of legal writers.

This article addresses the unique challenges, benefits, and pitfalls involved in designing and teaching an online legal research course. The authors identify factors to consider when delivering a graded legal research course through an online or distance format, including course design, instructional methods, and assessment. They also evaluate individual instructional technologies. Concluding that online technologies have significant potential for accommodating various learning styles, they caution that the demands of developing and teaching online legal research courses require institutional support.


See infra p. 401.


Hutchinson examines the effect of IT on the new legal research paradigm, arguing that doctrinal methodology should no longer dominate legal research training. Instead, she maintains that law schools should expose students to methodologies more appropriate to the changing legal information environment, including qualitative and quantitative methods, comparative research, case studies, benchmarking, and content analysis. She also offers suggestions for training law students to work independently in dynamic web-based legal environments.


Johnson discusses a legal research course at GSU College of Law taught exclusively with digital and web-based materials. Using web courses, instructors post slides and chapters that include screen captures and illustrations. CALI lessons supplement traditional assignments, and weekly quizzes use clicker technology. Johnson outlines the benefits of this approach, including cost, portability, and ease of customizing and updating. She discusses results of a student survey evaluating the effectiveness of teaching without a textbook. An appendix reproduces survey questions.


Observing that legal research faculty rarely have enough class time to teach students the print and online sources required to complete a research task successfully, Johnson identifies core legal research principles every legal research student should learn. She discusses best practices in teaching the legal research process, along with the important sources that must be covered in a legal research course.


The author proposes using a guided workshop to introduce the skills of online legal research. Part 1 of this article presents the author’s experiences in arriving at the workshop method of teaching legal research. Part 2 presents the workshop method and its benefits and advantages over lectures. Part 3 details the workshop he has developed, student reactions, the benefits of this approach, and planned changes based on student evaluations.

Using information-foraging theory and current standards for optimal web design, Jones employs a heuristic analysis to examine the effect of user interfaces of Westlaw and LexisNexis on the process of legal research and the development of effective research skills in law students. She concludes that the architectural structure of Westlaw and LexisNexis discourages the use of secondary sources and browsing within databases.


This article examines the different search results obtained by law students and librarians using both Westlaw Classic and WestlawNext. The study showed that many participants did not understand the nuances of either system. Underscoring the implications of this finding for teaching, the authors suggest that legal research instructors clearly delineate the differences between and nuances of both systems. They also recommend that Thomson Reuters provide more information about effectively using WestlawNext and its algorithm search.


Kreiger reports on a study comparing the research processes of law students using print and electronic sources. Findings suggest that electronic researchers tend to search for one technical solution to a problem, while print researchers are more likely to think conceptually and to compare the problem case to patterns in other cases and legal doctrine. He concludes that law faculty must train students to overcome these electronic influences and to approach legal issues, even on computers, heuristically rather than algorithmically.


This article reports on a study comparing the research processes of 20 law students, divided equally into print researchers and electronic researchers. Results confirmed predictions that electronic researchers tend to (1) rely less on secondary finding aids, (2) access fewer secondary sources, and (3) focus on facts instead of legal concepts. The authors call for the legal profession and legal academy to conduct similar studies to help understand the implications of the shift to electronic research.


This article addresses the necessity of teaching Internet legal research as a low-cost alternative to subscription databases such as Westlaw and Lexis. The author discusses the advantages and disadvantages of Internet legal research, as well as effective methods of evaluating online resources for cost, coverage, currency, accuracy, authority, appropriateness, perspective, presentation, and usability.


See supra p. 331.

The authors argue that new legal research tools, such as Ravel and Casetext, should be integrated into law school courses because they further pedagogical goals, reinforce information literacy, strengthen metacognitive skills, and make students competitive as technology evolves. They describe the results of a pilot program that introduced Ravel and Casetext to a first-year legal writing class and propose ideas for future teaching pilots. An appendix includes assessment and reflection survey questions provided to students.


This article focuses on the use of BAILII’s open access materials as learning resources in U.K. law schools. The authors note that although students regard BAILII as a useful resource, law schools have not integrated it into their legal research curriculum. They opine that this situation might benefit from legal search algorithms, which could be developed by closer connections between law schools and departments of computer science and librarianship.


The increasing role of the Internet in the legal profession requires us to teach students to be more rigorous when evaluating online sources. To this end, Lenhart recommends adopting the process used by historians, which involves critically examining the document’s epistemology, purpose, and argument; the reader’s presuppositions; and the need to relate one document to another. She discusses each step and recommends that law schools adopt this approach to teaching legal research.


This brief essay explains how to teach law students to use basic editing features of word processing programs when they write, so the writing process is more efficient and less stressful.


Lihosit refutes predictions that CALR will fundamentally change legal research habits and restructure the legal system. She presents her own study to illustrate an alternative model of how attorneys conduct research. Based on this model, she concludes that law students’ increasing reliance on online materials will transform neither the research practices of attorneys nor the legal system.


Because the medium of legal communication has shifted to digital formats, Margolis argues that law schools should make corresponding changes to the communication of legal analysis, including typography, document design and navigation, hyperlinks, and images. She reviews these changes, explores the potential
for further change, and calls on the LRW community to determine how to use technology to improve the appearance and function of legal documents without sacrificing the clarity, precision, and rigor that are critical to legal analysis.


To teach her LRW class about the e-communication needs of lawyers and clients, Margolis developed writing exercises requiring students to assume the role of a junior associate. Students were required to summarize their research and analysis in an e-mail to Margolis in her role as a partner preparing for a meeting. After students submitted their work, she reviewed a representative sampling in class. She describes lessons learned by student and professor alike about using electronic devices to communicate legal analysis.


See supra p. 351.


See supra p. 351.


See infra pp. 374–75.


The authors used a student-created screencast as a graded assignment in their advanced legal research classes. They discuss their reasons for creating this project, the software used, the structure of their assignments, potential problems, and benefits for students. They conclude that the assignment met their core pedagogical goals of enhanced substantive expertise, communication skills, and experience with technology.


McGaugh discusses online collaborative tools, or cloud applications, which make shared editing of a document easier and more interesting to students. After explaining how to set up and use Google Docs for in-class or out-of-class collaboration, she discusses how to use Zoho Writer, Buzzword, and Twitter for document drafting, and Facebook for classroom communications.


The author explains how she has integrated visual technology into her legal writing classroom, using videos to expose the facts for legal writing assignments. She discusses the software, the creative process, and a sample assignment, conclud-
ing that students developed a broader view of both sides of the legal issue in an authentic context.


See infra p. 395.


This article discusses the impact of Web 2.0 on the creation, dissemination, and accessibility of legal information. The author reviews recent studies of current and future law students and other Web 2.0 users. He recommends that during the Web 2.0 transition, legal research instruction emphasizes the skills and attributes of Web 2.0 while teaching students the skills necessary to evaluate and solve legal problems.


Murley argues that legal research faculty should teach students to use Wikipedia properly, rather than trying to convince them not to use it. She explains how Wikipedia articles are written, how they can be better evaluated, and how Wikipedia can be used to help teach the importance of evaluating sources.


At Western State College of Law, students learn about free online legal research sites as viable alternatives to expensive commercial resources. Park explains how she introduces students to these sites and follows up with small group in-class exercises and debriefings. She concludes that students will become efficient, self-reliant legal researchers if they are aware of such free online resources, know how to access them, and understand the organization of information.


A study of law students in advanced legal research courses at two law schools explored the impact of WestlawNext on the research process. Peoples discovered that WestlawNext is inadequate for finding seldom-viewed content, creates confusion by not requiring a database selection, and generates overconfidence because of its similarity to Google. He offers suggestions for improvement and calls for librarians to become more involved in training students to use WestlawNext.


Given the rapid development of electronic legal research platforms, the author argues that instruction in legal research strategy must focus on fundamental legal concepts rather than on platforms and template-driven mechanics anchored to specific media. She proposes teaching a flexible legal research paradigm that emphasizes the importance of analyzing legal authority and deemphasizes the information-gathering process. This approach, she concludes, will provide students with both the foundational knowledge and the flexibility necessary to conduct effective legal research.

See supra p. 332.


Using clichés to underscore his arguments, Rosenberg chronicles his experience teaching a hybrid online lawyering skills seminar. He describes the seminar, examines critical elements of teaching this model, and compares it to conventional courses. He also provides examples of classes and learning activities that illustrate his approach to assessing online work. Rosenberg observes that the experience changed his outlook on teaching and learning, improved his teaching methods, and provided new dimensions of learning for students.


The title of this article refers to the technology bubble that puts law students on autopilot when they conduct legal research. Rowe explains how sophisticated search engines have encouraged students to treat research as a document retrieval system rather than as an analytical process. To combat this problem, she recommends teaching methods that encourage students to think through the legal research process by analyzing their techniques, developing searches, evaluating results, and examining individual documents.


JURIST is an online legal news and commentary service hosted by the University of Pittsburgh School of Law. This article discusses Paper Chase, JURIST’s student-written legal news service, and explains how its training program teaches innovative methods of comprehension and analysis, thereby improving research and writing skills. The author proposes that LRW faculty implement aspects of JURIST’s legal journalism model to teach first-year students. The article concludes with suggested classroom applications.


Sears describes the results of a three-year study responding to the concerns of legal professionals about the predisposition of new attorneys to use online sources only. The study used an integrated approach requiring first-year law students to conduct legal research tasks both online and in print sources and to evaluate their experience. Results demonstrated that students began to appreciate and prefer print sources in certain situations. The author concludes that this approach will prepare students for survival in the real world of law practice.


Sites discusses the need to prepare law students for significant technological changes in law practice. One such change discussed is algorithm-based legal research, such as that used by ROSS, which mines more than one billion text
documents per second and directs researchers to significant legal sources. He concludes that to prepare students for the future, legal educators must track what that future will contain, modify their courses accordingly, and instill technological awareness in their students.


Because legal information is a product marketed to lawyers and students, Sloan proposes conceptualizing legal research as a consumer transaction that treats the research process as a purchase transaction and research instruction as consumer education. She identifies the influences affecting consumer choice in the research context and explains the pedagogical advantages of using consumer decision-making theory to teach research. Sloan concludes that students who are better consumers of legal information will become better professionals.


This article addresses the question whether the shift from the indexing method of legal research to full-text word retrieval discourages creativity and deprives students of the analytical benefits of print research. The author explains how law library collections and current legal research trends reflect this paradigm shift. She offers suggestions for integrating print-based case digests with online research and closes with ideas for a user study that will better inform future discussions.


Valentine argues that law schools should fully integrate legal research into all first-year courses. This approach would require analysis, doctrinal knowledge, and information literacy, and be informed with adult learning methodologies. She concludes that this method would teach students to navigate an overwhelming digital landscape and provide them with the necessary research skills for law practice while building the conceptual framework necessary for legal analysis.


Wheeler continues his earlier work by exploring strategies for teaching law students to use WestlawNext’s complex algorithm system for effective legal research. To this end, he discusses source selection, filters, volume of results, esoteric content, and Boolean searching. Wheeler invites faculty to devise assignments that

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15. See *infra* p. 367.
highlight both the advantages and drawbacks of WestlawNext, noting that the platform's pitfalls provide teachable moments.


Wheeler examines the impact of WestlawNext's search algorithm on the research process. He criticizes (1) its crowdsourcing feature for burying esoteric content, and (2) its elimination of the need to choose a database, which is the mechanism by which law students learn about and reinforce their knowledge of sources. He calls on legal research faculty to develop effective ways to use this tool and concludes that further empirical studies of WestlawNext are required.


This article discusses the advantages and disadvantages of using the free Internet to conduct legal research and teach students the process of legal research. The author concludes that students who are properly instructed can learn to make informed decisions as to which research tasks can be properly accomplished using Google.

Woodside, Jackie. “Introducing Students to Online Research Guides.” *Perspectives: Teaching Legal Research and Writing* 17, no. 3 (Spring 2009): 171–73.

Woodside proposes that LRW courses instruct law students on the use of online research guides, which can be valuable resources during summer employment. She presents an outline for a class session and offers tips on finding and evaluating research guides.

### Mooting


See infra p. 398.


A pilot study used Second Life to teach mooting skills at UWS. The authors explain the project's development, from the selection of avatars and software to the actual execution of the simulations. Because the online platform proved to be unreliable, they recommend against using Second Life for mandatory assignments. However, positive student feedback suggested that Second Life could be used for training and practice in advocacy skills. The authors conclude that if technical difficulties can be resolved, Second Life might be a suitable platform for international mooting competitions.


This paper discusses the use of a virtual Supreme Court site, iNcourt, for moot court simulations in constitutional law courses. The author explains the site's
operation as a research resource, electronic filing depository, and virtual conference for certiorari and merits discussion and voting. After addressing site development, design, and components, he reports on site revisions inspired by his own experience and student feedback that included technical criticisms and suggestions for improvement.


In this third and final stage of a two-year trial, the authors conducted an internal moot competition using Elluminate, an online communication platform. To evaluate its effectiveness, the project team used surveys and focus groups. They concluded that technology should be a routine part of legal education to ensure administrative efficiency and to provide an authentic learning experience. Appendices reproduce survey and focus group questions.


This article reports on the second year of QUT’s two-year trial using Second Life, Elluminate, and video conferencing as platforms for remote mooting. The authors describe and evaluate the trials and identify the benefits and limitations of the different technologies. Observing that students strongly preferred the face-to-face option for external competitions, they recommend that law schools explain the benefits of technology to students and carefully consider desired objectives when deciding which platform is most suitable to the mooting experience.


This article reports on the first stage of a two-year project, which sought to determine whether technology could be used to overcome obstacles to student participation in mooting, such as time, distance, and a lack of experience and confidence. This article discusses the advantages of using technology to meet these challenges, evaluates technological options such as Second Life, Elluminate, and video conferencing, and recommends a trial of these options to determine which ones best facilitate virtual mooting.

**Information Technology**


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16. See infra this page.
17. See infra this page; supra this page.
18. See supra this page.
19. The articles in this section focus on the use of information technology (IT) in legal education. As used here, IT includes “the application of computer hardware and software, networks, Internet facilities and telecommunications (voice and data) transmission systems to human processes for communication, analysis and information distribution.” Donald J. Polden, *Planning and Decision-Making for Law School Information Technology*, 18 SANTA CLARA COMPUTER & HIGH TECH. L.J. 259, 273 n.1 (2002).
At Kuwait University School of Law, the author used ICT to teach four civil law courses. Her paper describes the need for this project, as well as its goals, structure, use of instructional technology, and budgetary challenges. After explaining the steps taken to improve the website and course materials, she notes that students showed increased engagement in their coursework and greater contextual learning. An unanticipated benefit was that the site helped students and faculty of peer Arab universities.


Arguing that a multidisciplinary approach is essential to information literacy in legal education, Allbon focuses on the importance of visual experiences in student engagement and learning. She examines ways in which legal educators can be inspired by librarians, technologists, informatics experts, and creative designers, whose literacies, methodologies, and visualization expertise can enhance our teaching.


In this book chapter, Lauritsen discusses how to prepare law students for practice in a world in which machines increasingly perform legal work. He argues that law schools should offer courses in law practice automation and legal information science; teach the ethical use of IT; develop programs that further education, research, and development in law and IT; and explore how legal technology can encourage or inhibit justice, freedom, and human dignity.


Paliwala argues that the earliest uses of IT in legal education, which merely reproduced the traditional classroom in an online environment, were influenced by the Socratic case method, whereas subsequent innovations, such as the computerization of live clinics, were inspired by Confucian methodologies. After discussing these methodologies in the context of particular e-learning technologies and creative delivery methods, such as YouTube and Second Life, he concludes that e-learning in legal education would benefit from a pluralism of approaches.


The authors examine two IT law modules that teach undergraduate computing students to recognize and comply with EU and UK law. Of interest to legal educators is their consideration of issues of design, content, management, and delivery of these modules as well as teaching methods and assessment strategies. They conclude that the use of interdisciplinary case studies encourages active and collaborative learning.


In this indictment of legal education, Thomson maintains that law schools are failing students by languishing in the 1.0 stage of electronic instruction. He argues persuasively for the use of technology in law school teaching and examines several technologies, including ARS, wikis, and Case Map. Although Thomson offers no detailed direction in the use of any of these technologies, he does succeed in raising awareness about the changes that technology will bring to legal education.
Instructional Methods and Technology

Artificial Intelligence

Ashley, Kevin D. “Teaching Law and Digital Age Legal Practice with an AI and Law Seminar.” Chicago-Kent Law Review 88, no. 3 (2013): 783–844. Ashley argues that an AI and law seminar can teach law students about rules, cases, and arguments, and process models and algorithms for modern legal practice. A sample syllabus frames his discussion of the pedagogical lessons of the seminar. He suggests that students might later progress to a practicum in which they contribute new computational models or build their own expert legal systems.

Ashley, Kevin D. “Teaching a Process Model of Legal Argument with Hypotheticals.” Artificial Intelligence and Law 17, no. 4 (2009): 321–70. LARGO is an ITS designed to teach law students the process of hypothetical argument using oral argument transcripts. Ashley reports mixed results from experiments involving first-year law students at the University of Pittsburgh. While LARGO has helped volunteers with lower LSAT scores learn skills and rules more easily than a text-based approach, results differed when participation was mandatory. He concludes, however, that the results support using LARGO as a diagnostic tool.

Ashley, Kevin, Collin Lynch, Niels Pinkwart, and Vincent Aleven. “Toward Modeling and Teaching Legal Case-Based Adaptation with Expert Examples.” In Case-Based Reasoning Research and Development: Proceedings of the 2009 International Conference on Case-Based Reasoning, edited by Lorraine McGinty & David C. Wilson, 45–59. Heidelberg, Ger.: Springer, 2009. The authors report on a study using the LARGO ITS to help law students learn the process of hypothetical argument by diagrammatically reconstructing examples of hypothetical reasoning from oral argument transcripts. In this paper, they assess the reliability of expert grading of students’ diagrams, concluding that certain features, such as policies and principles, must be made more explicit.

Lynch, Collin, Kevin D. Ashley, Niels Pinkwart, and Vincent Aleven. “Toward Assessing Law Students’ Argument Diagrams.” In Proceedings of the 12th International Conference on Artificial Intelligence and Law, 222–23. New York: ACM Press, 2009. This brief conference paper reports on an ongoing study in which law students use graphical argument models in the context of the LARGO ITS to annotate oral arguments transcripts. The goal is to develop models that legal professionals and novices can use to produce and parse complex legal arguments. The authors conclude that there is some empirical support that argument diagrams can serve as educational and communicative tools.

20. As used in this article, instructional technology includes the design, development, use, management, and evaluation of technology resources for teaching and learning law.

21. AI is concerned with the development of computer systems that can model or simulate intelligent behavior by performing tasks and solving problems ordinarily thought to be within the exclusive province of human intelligence. Susskind, supra note 6, at 120. As used in this section, AI includes expert and knowledge-based systems that guide users through complex legal issues, analyze problems and draw conclusions, formulate strategies, and assemble documents.

22. See supra this page and infra p. 371.

Data collected during three studies of students’ argument diagrams created in LARGO revealed systematic differences between diagrams produced by different student populations, divided into novice or advanced law students, LSAT score, voluntary or mandatory participation, and learning gains. The authors conclude that the diagrams created in LARGO contain diagnostic information that can potentially be used to adapt the system to the particular needs of a student.


This paper reports on a study in which LARGO formed a mandatory, ungraded part of a first-year legal process course. Contrasted with earlier findings for voluntary participants, LARGO did not lead to learning gains. The authors suggest that these results are attributable to lower student motivation, less engagement with the system, and a text-based post-test design, all of which should be considered in future studies of LARGO.


As Mexico’s legal system rapidly changes from civil law to common law practices, legal actors must make a quick cognitive transition to a precedent-based system. This book chapter proposes that legal educators combine visualization techniques with legal AI systems to show how common law actors marshal precedent in support of an argument or conclusion. One example discussed is computerized, animated military-style campaign maps that use attorneys, hypotheticals, and precedents instead of battle units.

Blended and Flipped Classrooms


The authors report on their study of LL.M. students at Duke University Law School, comparing retention of legal research concepts between one group taught by live lecture and another group taught by a self-paced, recorded module. When results showed no significant difference in retention, the authors concluded that the investment of time in recorded modules would be better spent on additional
class time. Nevertheless, they suggest that such modules may be useful for students needing remedial help.


At the University of Hertfordshire School of Law, the flipped classroom model has been modified to add a third element. In addition to assigning online knowledge-based lectures as course preparation, the law school now rotates tutor-led in-class skills lectures with student-led in-class workshops. The authors maintain that this approach allows students to engage in qualitative debate that improves their critical reasoning skills while being instructed in the skills necessary to excel in their written assignments.


Binder discusses his experience flipping a graduate-level business law and ethics class. The lessons he relates easily apply to the law school setting. He discusses the online video content, coordination of technology resources, the software platform, and the intellectual property issues relating to the captured content. After describing the out-of-class assignments and in-class presentations, and each team module, the author shares lessons learned.


Blissenden argues that the use of blended learning and flipped classrooms should begin with first-year law students and be continued throughout law school, allowing interconnection of material across several courses. He provides a sample problem that he uses in an upper-class revenue law course, with the problem scenario linking material from property law, contract law, and landlord-tenant law. This approach, he concludes, will better prepare graduates for law practice.


This article considers whether blending traditional teaching activities with e-learning tasks and resources can enhance law students’ overall pedagogical experiences. It reports on a study of Cardiff Law School students’ perceptions, focusing on the value they placed on e-learning resources and tasks. The results revealed that students who have learned to complement their studies with online activities and who make good use of the e-learning resources available to them perceive that they have discovered useful skills.


The authors describe their experiences using flipped learning in three courses at Griffith Law School. After explaining course activities and delivery, they discuss student reactions and quantitative data obtained through course evaluations. While many students reported that this learning environment encouraged active and engaged learning, others found that online content delivery was less effec-
tive and involved more work than face-to-face delivery. This was particularly true for first-year students, who need more direction to develop study skills and self-reliance. The authors recommend that faculty consider the challenges facing novice law students and clarify the pedagogy underlying the flipped classroom.


Law faculty at Monash University piloted a blended learning experience for first-year law students, using a series of short videos, supported by online and in-class activities. This article examines the rationale, design, implementation, and evaluation of the pilot, focusing on lessons learned in technical support, pedagogy, and assessment. The authors conclude that a blended learning approach will deliver better outcomes only when combined with scaffolded approaches to legal knowledge and reflective learning practices applied in a supportive class environment.


Law librarians at Boston College Law School adopted a flipped classroom approach for advanced legal research classes. The authors explain how they implemented the flipped classroom model, using screencasting software and other technology to create and deliver pre-class videos and online quizzes. This process in turn enabled them to incorporate more hands-on research exercises in class, to evaluate student progress, and to facilitate deeper learning of the overall research process.


At the University of Brighton, blended learning was introduced into two LL.B. modules to support in-class learning and provide a platform for computer-based formative assessment. The authors report an increased level of engagement with the materials and a student perception that computer-based assessment was moderately effective in supporting their learning. They conclude that blended learning can increase institutional efficiency and enhance the learning experience.


Hess explains the virtues of blended courses, which enable students to use online instruction to access and understand course material and professors to use classroom time for analysis, synthesis, and evaluation. Arguing that blended courses might provide the best education for law students, he draws support from legal education literature, student and faculty interviews, and empirical studies of student learning. He also offers design principles and recommendations for creating effective blended courses in the law school environment.


UWS initiated a blended learning pilot in an intellectual property seminar, using podcasts to teach content before students participated in interactive classroom activities. The author discusses the redesign of learning resources, podcast content, and assessment. Benefits included flexibility, student engagement, the ease of updating, and increased classroom interactivity, while challenges involved invest-
ments in time and resources. Concluding that this approach offers students the best of both the online and classroom worlds, Ireland outlines future directions.


The author shares his experience using an online LMS in a blended learning format to teach social media and the law. Six of the nine classes were conducted live online via Adobe Connect, using Desire2Learn as the LMS. He discusses technological challenges, class participation, weekly assignments, and plans for future iterations.


The author explains how she used the flipped classroom pedagogical model to integrate academic support with first-year courses, thereby improving new law students’ academic success. She also discusses the benefits and drawbacks of this approach, which included dividing the program into modules and starting each module with a short video teaching the basic approach to that module’s skills.


This article argues that the flipped classroom model is superior to the traditional classroom model for teaching legal research to international LL.M. students, who arrive at U.S. law schools with diverse legal experience. The author discusses the model’s pedagogical effectiveness in the legal education context and describes her experiences using a flipped classroom to develop legal information literacy skills to international LL.M. students.

Lihosit, Judith, and Jane Larrington. “Flipping the Legal Research Classroom.” *Perspectives: Teaching Legal Research and Writing* 22, no. 1 (Fall 2013): 1–12.

The authors use Bloom’s Taxonomy to explain how flipping their legal research classroom allowed higher-ordered learning to occur within the physical classroom. They offer guidance for planning a flip, matching content to delivery mechanisms, selecting screencast programs, and using class time.


This article discusses an intensive ADR simulation course offered during a week-long intersession. Students began the class online, watching videos paired with reading assignments before the in-person portion commenced. After addressing course development, the authors share lessons learned when using technology, such as sound quality and accessibility for hearing impaired and visually impaired individuals. Student evaluations of the course and materials were positive. The authors conclude that the flipped classroom technique was very effective at integrating theory and doctrine into a primarily simulation-based course.


Using screen-recording software, Matamoros recorded legal research demonstrations to liberate classroom time for small-group work and class problem solving. He explains his process for answering questions about the videos and guiding
students through the analysis of a legal issue related to the research assignment. The author concludes that his flipped classroom experience made students better learners and improved his teaching skills.


This article explains how an online LMS was adapted to a business law course that blended online and traditional delivery methods and relied on problem-based learning. The author describes the design and implementation of the project, which he states created authentic learning experiences, promoted collaboration, and strengthened skills. He also applies an exemplar to illustrate stages of the learning process in a business litigation module, discusses student feedback, and addresses the increased workload for faculty.


Pettys argues that legal education is poised for an “innovation-rich renaissance” (p.460) that depends on the willingness of doctrinal faculty to experiment with methods that develop analytic abilities. In Part 2, he explains how available technology may be used to flip the classroom, thereby reserving classroom time for higher-level analytic activities.


The author used an iPad and Doodlecast software to create multimedia video capsules that replaced classroom lectures so that he could focus on problem solving in his evidence class. Sankoff reports that the predictions of critics—declining class attendance and overburdening students—were without merit. He concludes that the benefits of the flipped classroom included more productive use of class time, the appeal of multimedia to visual learners and Generation Y students, and a flexible, enriching, and engaging learning experience.


Reporting on a flipped classroom forum held in 2013 at the University of Ottawa, the authors review issues raised in several studies on flipped teaching. They then provide an edited transcript of the forum, which included discussions of both pedagogy and technology. They conclude by offering thoughts on the future of the flipped classroom.


This article discusses research conducted in a commercial law course that combined technology with traditional teaching methods. The authors consider the ways in which the chosen tools and strategies interacted with face-to-face sessions, as well as the strengths and limitations of each. Based on improved retention rates and grade point averages, they conclude this blended approach contributed to a better overall teaching and learning experience.

The author documents her experience using web-based technology to flip her civil procedure course and compares student performance in this class and her traditional class. Despite using vastly different teaching methods in each class, Schaffzin found no statistical difference in student performance. However, she plans to continue using a flipped classroom because she found that it provides a more enjoyable experience than a traditional Socratic classroom does.


National Chung Cheng University developed blended learning projects to encourage independent thinking and active learning in Taiwanese law students, who are traditionally passive learners. The author explains how the course web-sites and e-lectures encouraged active learning and reflective discourse with her and with each other. She also describes how she used new technology in a DL family law course, concluding that the use of technology in a modern Confucius classroom had achieved Socratic ends.


This essay walks the reader through the author’s experience with flipping his civil procedure classroom, which included using video lectures for pre-class content delivery and classroom time for collaborative skills exercises. Slomanson briefly reviews the technical options available in learning management systems and webcasting software. An informal survey suggested that this blended approach has allowed students to use class time to develop their analytical skills.


Taylor advocates using a flipped model to overcome the challenges of teaching legal research to first-year law students. Drawing on her own experience and available literature, she discusses key reasons for flipping a legal research class, including increased student engagement, applying skills to practice, and creating opportunities for formative assessment. She also discusses challenges posed by this model, including time and work, but concludes that the rewards for students and faculty are worth the effort.


The authors explain how a blended learning environment can help law students learn problem-solving skills. Based on their experience developing 37 short instructional videos for a first-year contracts course, they offer practical suggestions for creating and using such videos to move doctrinal coverage online so that class time can be dedicated to analytical exercises.

Upchurch, Angela. “Optimizing the Law School Classroom through the ‘Flipped Classroom Model.’” Law Teacher 20, no. 1 (Fall 2013): 58–63.

The author shares her experience flipping her civil procedure/jurisdiction course in 2012. She recorded and posted video lectures online to accompany short Pow-
erPoint presentations, after which students were assessed through online quizzes. Class time was devoted to advanced analytical and practical skills exercises. Upchurch reports increased student engagement with course materials, better preparation, and improved class performance. She closes by offering guidance and strategies for faculty wishing to use this model in their own law courses.


This book, which is based on a study of flipped classrooms for legal education in Hong Kong, provides a comprehensive examination of this method of delivering lectures online to provide more time for in-class interactivity. In addition to pedagogical and technological considerations, the authors discuss development, costs, and their own use of the flipped classroom in an international business transactions law class.

**Electronic Course Materials**


The University of Auckland School of Law used a VLE to create a community of collaborative learners and improve performance. The author explores this VLE strategy, concluding that it helped enhance the intellectual and emotional satisfaction of students and fostered greater enthusiasm for learning. He also discusses obstacles to success, including reluctant administrators, professors, and students, and suggests overcoming these challenges with a blended learning environment that incorporates a flipped classroom.


Bodie argues that the Labor Law Group of professors and practitioners, which has been collaborating on casebooks since 1947, is uniquely suited to develop labor and employment course materials using an open source casebook approach. He envisions them using one website to create, refine, and distribute materials online without a laborious and expensive publication process. These materials would be immediately available to professors, who could use all or part of them in any order and refine them as needed.


The experience of producing an open casebook and statutory supplement on intellectual property law inspired the authors to answer frequently asked questions. They address financial benefits for students, pedagogical benefits for pro-

23. As used in this section, the term “electronic course materials” includes class readings, assignments, casebooks, workbooks, and similar learning resources published in digital or electronic format. It includes courseware, course management systems, virtual learning environments, learning management systems, content management systems, and learning content management systems, all consisting of digital and electronic environments that can be used to facilitate teaching and learning, to deliver course materials, and to administer online course materials. See Samantha A. Moppett, *Control-Alt-Incomplete? Using Technology to Assess “Digital Natives,”* 12 Chi.-Kent J. Intell. Prop. 77, 130 n. 235 (2013).
fessors, print-on-demand publishing, difficulties with permissions and format limitations, and challenges for scholarly reputation. After exploring both the advantages and drawbacks of these materials, they conclude that open publishing models have the potential to improve legal education significantly through substitution and competition.


For their securities regulation courses, the authors created a digital statutory supplement compiling statutes and regulations that are publicly available at no charge. They note that, in addition to cost savings, the books were easy to produce, update, read, search, highlight, annotate, and navigate. The authors conclude with plans for improving the product. Appendices provide instructions for downloading and formatting materials and report the results of two student surveys on use of the digital supplements.


Calling for a truce in the war against laptops, Donahoe recounts her experience creating and using an interactive, online textbook to engage laptop users in her LRW classroom. She explains the thinking and learning processes of digital law students, discusses the strengths and weaknesses of this e-book, and concludes that it made students more engaged, productive, animated, and critical in their thinking. She also suggests other digital tools that enable law professors to adapt to students’ changing technological needs.


This article discusses QUT’s web-based student response application, OWL, which was designed to integrate a VLE to facilitate live collaborations between students and academics during face-to-face instruction. OWL offers a microblog, a polling feature, and podcast recordings of live classes. Based on surveys of law students in the pilot program, the authors conclude that OWL should be used to promote student engagement in face-to-face classes. They also conclude that the survey findings support a reevaluation of pedagogy.


The authors discuss their experience self-publishing an e-casebook on advertising and marketing law. They summarize the benefits of e-publication, including low cost, rapid versioning, and improved content. They also address challenges, such as selecting vendors, formatting and preparing both electronic and hardcopy versions, self-marketing, and the lack of peer credit for publication. They conclude by outlining plans to provide faculty adopters with additional support tools.
   Arguing for crowdsourced authorship of online digital casebooks, the authors explain how their online platform permits their book to display, interact with, and respond to the ideas, edits, comments, and critiques of readers and authors. Classroom pilots showed students engaging with the material online and in classroom discussions. After concluding that social authorship results in a smarter book and effective learning, they situate their own coursebook within the larger discussion on reforming legal education.

   Johnson contends that casebooks must evolve for teaching methods to respond to a changing student population. His article outlines his vision to transform the casebook into an electronic “course source,” with all teaching resources in one place. He discusses his prototype, Wetlands Law: A Course Source, which is available online. He also addresses advantages and challenges of such a casebook and obstacles to its evolution.

   This comprehensive examination of digital textbooks in legal education explores the forces that will inevitably create a market for such materials and explains options for faculty implementation. Advantages include portability, cost savings, ease of updating, and inclusion of multimedia materials, which McCabe suggests would be maximized by adopting open source platforms. He concludes that law libraries will play a vital role in supporting authors, adopters, and student users.

   Querying why the independently produced e-casebook is still a niche phenomenon, the authors first outline an e-casebook typology and then underscore aspects of the culture of academic legal scholarship that explain the enduring nature of the print casebook. They conclude that although e-casebook offerings will certainly increase, the prestige, credibility, and trustworthiness offered by traditional publishers play a crucial and enduring role in the market for course materials.

   See infra p. 395.

   See infra p. 417.


This article describes the use of electronic resources to teach company law and explores their impact on teaching methods and student learning. In particular, the authors focus on the development and use of a particular textbook—Australian Corporate Law—featuring online enhancements. They note that students benefit most from online resources when their professors clarify learning goals and explain how engagement with these electronic resources will help them achieve those goals.


In the contemporary legal issues module at Plymouth Law School, screencasting is used to provide real-world narratives that engage first-year law students in discussions of the legal and ethical issues in news stories and to encourage them to develop their own arguments. Despite greater student engagement in the subject matter, the author cautions that screencasting can create a unilateral dialogue between instructor and student unless debate forums and chat functions are incorporated into the VLE alongside the screencasts.


At the University of Exeter Law School, the author designed and managed the three technological environments discussed in this article. He describes and evaluates the Excel@Law multimedia platform, the Virtual Law Firm, and the Virtual Board Room as examples of innovations that foster experiential learning and embed employability skills in the curriculum. Arguing that both creative curriculum design and e-learning are crucial to the development of legal ethics, values, and marketable skills, he concludes that such projects must also include a process of reflection.


In the United Kingdom, “graduate entrants” are students whose transferable credits exempt them from the first year of law study. Because this practice may disadvantage these students, the LL.B. program at the Open University sought to bridge the knowledge gap by developing optional online learning materials in the form of podcasts and written presentations. This article discusses the development and assessment of the materials and methods for evaluating the study’s success. Results showed that the sessions met their intended purpose, that students held generally positive opinions of the materials, and that there was some correlation between a high level of engagement with the materials and academic success. Pywell concludes by outlining the steps that will be taken to encourage more students to study the materials.

This book addresses the use of digital media as a means of delivering legal education materials and as a force that will change course content and pedagogy and relationships among the many actors in law schools and the publishing world. Part 1 deals with the creation of digital materials, including customizable course texts, open source models, and copyright issues. Part 2 describes digital media in legal education, addressing changes in course materials and learning styles accompanying digitization, the use of video games as teaching and learning tools, and a continuing and increasing need for law libraries and librarians. Part 3 considers the effects of this digital revolution on law school curricula, such as teaching legal skills, implementing collaborative learning, modernizing course materials and pedagogic practices, and providing students with authentic case files that demonstrate the uncertainties of law practice.


This brief article outlines the disadvantages of print course books and summarizes the Workshop on the Future of the Legal Course Book, held at Seattle University School of Law on September 27, 2008.


Trachtenberg considers how a criminal procedure professor might select a course book from the numerous options available. He calls for American law schools to encourage and coordinate faculty efforts to publish casebooks inexpensively by taking advantage of the public domain status of Supreme Court opinions, with PDF versions available at no cost.


*See infra* p. 429.


Winn describes the open access textbook publishing project offered by CALI's eLangdell Press and underscores some of the market barriers to textbook innovation in legal education. Because law students would be the ultimate beneficiaries of alternative, cheaper textbooks, Winn suggests that they organize a website showing textbook costs at all law schools, thus giving law faculty greater incentives to produce and adopt open access textbooks.


This is an edited transcript of a workshop discussion held in 2008 at Seattle University School of Law. Participants discussed the development and implementation of electronic course materials and the advantages and disadvantages of electronic content and delivery systems. They also explored various electronic formats for producing, delivering, and receiving content, including CALI, e-readers, interactive course books, and platforms such as the Aspen Law Study Desk. The final session focused on methods of implementing the ideas exchanged in earlier sessions.
Film and Television


To complement case reports in their torts class, the authors use a documentary film, The Sterilization of Leilani Muir, about eugenically based involuntary sterilization. After recounting their experience and exploring documentary film as a medium for telling legal stories, they reflect on the ways in which the film engages students, reframes the official account of the story, provides social history and context, and assists them in teaching both the case and the subject matter of torts.


This book provides resources for professors teaching ethics and professionalism courses. It includes 26 skills, listed alphabetically and appearing in separate chapters. Each chapter includes a brief essay defining and discussing the skill, a synopsis of the film associated with the skill, film discussion questions, and exercises for improvement. The book concludes with a comprehensive index.


Bloch addresses the value of visual narratives in active learning to reach students who learn better through visual, oral, and auditory channels. To this end, she discusses her use of three clips from Star Trek: The Original Series and Star Trek: The Next Generation in her large first-year criminal law class. For each excerpt, she provides the plotline, discusses applicable legal doctrine, and examines the suggestion of cognitive science research that stories can enhance learning.


This article discusses the benefits of using movies as a supplemental teaching tool, focusing on four films that can be used to enhance teaching. For example, the author explains how Suspect raises ethics and evidentiary issues and teaches criminal law and procedure lessons. She recommends that law libraries obtain such courtroom dramas and corresponding literature and that professors engage students in these movies and inspire them to dig more deeply into the law.


Burke’s piece explores the benefits of using pop culture to teach investigative criminal procedure. After discussing how she uses videos of police-citizen encounters to supplement traditional classroom material, she details a class exercise based on a video clip from the series Breaking Bad to summarize Fourth Amendment material. She concludes that this visual presentation of facts challenges students to consider how multiple doctrines can collide in a single factual scenario, as would occur in criminal law practice.


The authors recount their experiences using storytelling and film in first-year classes. Murphy argues that the use of documentaries, movies, and real-world stories of the people involved in appellate cases can remedy the disconnect between law students’ doctrinal criminal law studies and matters of justice,
morality, human experience, and social good. Day describes her approach to storytelling through films that provide social, political, and moral context to the assigned constitutional law cases.


In his comparative law class, Dellapenna uses films to introduce students to legal proceedings in foreign legal systems and to demonstrate how these proceedings differ from their American counterparts. After explaining his selection criteria, he describes six films and their pedagogic purposes.


Dennis explains how she uses *The Wire* to explore legal issues, introduce substantive topics, and create fact patterns for exams in criminal procedure, evidence, and juvenile justice courses. She also uses parts of the first season to assess students’ comprehension of the materials in these courses.


Denoncourt describes her use of *The Social Network* in an intellectual property law course and explains how it helps students understand the law and operation of intellectual property within social media. After discussing the benefits and drawbacks of using film in the law school setting, the author shares her insights, teaching methods, and sample lesson plans. She recommends other relevant films and concludes that learning is enhanced when film is added to a rich mix of teaching materials.


The author explains how he uses *The Wire* to enhance the policy focus in a criminal law and procedure seminar covering topics such as urban decay and crime, criminal justice reform, and informant culture. In addition to reading selected materials on *The Wire*, students view the first season of the series. Fairfax reports increased student engagement with the readings, episodes, and class discussions.


Gallini teaches *The Wire* in his criminal procedure course to expose students to diverse Fourth and Fifth Amendment issues. He explains how he uses entire episodes to replace casebook notes, to substitute for reported case facts, to introduce new material, and to close down a block of material.


This article explains how an entire course on criminal law and procedure can be based on the HBO series *The Wire*. Gershowitz uses episodes to fill voids in the curriculum, such as wiretapping and the broader context of real-world policing. He concludes that the series not only provides an excellent medium for learning doctrinal law but also offers an opportunity to explore broader policy issues that are typically missing from law school courses.

The HBO television series Silicon Valley is the foundation for Greenbaum’s intellectual property law and entrepreneurship course. After outlining his experience and summarizing the plot of each episode, he discusses relevant issues raised in each episode, as well as learning opportunities and topics for class discussion. He concludes that the show provides needed relief from technology fatigue and engages law students who are often distracted in class.


In this essay, the author explains his use of multimedia materials to complement traditional pedagogy in an entertainment law course. Focusing on the intellectual property aspects of his course, Greene describes his teaching methodology and examines how PowerPoint slides, music clips, and video clips from television and radio programs, movies, and commercials illustrate legal doctrines, keep students engaged, and shed light on the real-world aspects of entertainment industries.


Animated film scenes can be used to teach criminal law and to enhance student comprehension. The authors explain the plots of five popular animated films, including The Lion King and the Toy Story trilogy, highlight crime-specific scenes in each film, and discuss the application of Model Penal Code mental states to each of these criminal acts. They conclude by emphasizing the importance of considering alternative methods of classroom teaching.


Henning explains how she uses The Wire as a criminal law media textbook for students to examine the validity of traditional justifications for punishment. The Wire’s complex characters and graphic depiction of life in Baltimore challenge students to explore the moral and practical deficiencies of punishment in America.


In law practice, the increasing use of videotaping of depositions, crime scenes, and day-in-the-life documentaries requires both media literacy and familiarity with regulations and procedures governing crime scene photography and video editing. For these reasons, Hermida argues that legal educators must create opportunities for students to engage in class activities informed by visual pedagogy. After describing how students in his criminal law course create media productions and analyze videotaped depositions, he explains the pedagogical value of appealing to visually and technologically oriented learners.

Students in the author's healthcare course and seminar were required to watch Michael Moore's film *Sicko* and then discuss relevant legal rules and policy issues in either a reaction paper or a take-home exam. Leonard discusses student responses to narrative threads in the film, their reactions to the assignments, and the advantages of providing context for course content.


This article explores the role of film in legal pedagogy. Specifically, the author examines the use of *12 Angry Men* in teaching evidence to law students at the University of Sunderland. Livings discusses how the film was used in the course, arguing that it is well suited to introducing and contextualizing evidence as it is considered by a jury.


The author uses the 1982 courtroom drama film *The Verdict* to demonstrate how a disgraced attorney's value system and behavior evolve as he moves through Lawrence Kohlberg's moral developmental stages. Mathiasen explains how classroom discussion of the film allows law students to explore the relationship between moral reasoning, personal behavior, and social responsibility.


This article explores the use of the television series *Breaking Bad* as a pedagogical aid in a criminal procedure course. After discussing the value of video clips as a teaching tool, Minzner identifies scenes that explore major Fourth and Fifth Amendment issues and analyzes the applicable doctrine. He also explains how the show offers students the opportunity to examine state constitutional law, a subject often omitted from criminal procedure courses.


The syllabi for Moohr's white collar crime classes require students to watch the listed films as class preparation. Each student is required to make a presentation about the assigned movie and then lead a class discussion. The author concludes that students develop a deeper understanding of white collar perpetrators and the harm caused when they first experience the dramatization of a white collar crime and then discuss it. An appendix lists suggested films.


The author argues that films are a useful tool to supplement classroom legal education by allowing students to explore the complex family relationships at the heart of family law cases. She discusses her Family Law and Film course, including background reading and final assessment. She also offers recommendations for designing such a course. A filmography is included in an appendix.

This article explores the value of using law-related film and literature to explore topics such as the relationship between justice and procedure and the death penalty. After outlining the Law Through Film and Literature course at the University of Greenwich and discussing their thematic approach to course materials, the authors explain how they conduct their workshops and assess student work. They conclude with insights into how students have responded and developed because of their experiences with this course.


Pendo shares her experience using the film *Philadelphia* to explore the employment provisions of the Americans with Disabilities Act and to personalize issues of disability discrimination in a way that case reports alone cannot. She describes her use of the film and presents several class discussion questions intended to explore issues such as the definition of disability, the employer’s duty of nondiscrimination, and limits on medical inquiries and examinations.


Ross teaches scholarship in her seminar on *The Wire*, in which students are assigned law review articles to complement assigned episodes and must submit 25-page papers of “near-publishable” quality at the end of the semester. She discusses the challenges and benefits of this approach and the continuing relevance of *The Wire* as a critique of the United States’ antidrug policy.


Salzmann explains how visual tools enhance learning in a generation of law students whose digital upbringing has affected their cognitive processes. She proposes ways to use pop culture references, particularly in audio and video form, as hypotheticals, LRW fact patterns, illustrations, content, and auditory cues. She also offers suggestions for avoiding pitfalls, concluding that the use of pop culture is appropriate to keep students engaged in legal learning.


Drawing on popular works such as *The Walking Dead* and *World War Z*, Simmons explains how zombie films, texts, television series, and comic books can engage students in discussions about judicial responses to novel circumstances and the importance of the rule of law and procedural safeguards in times of anarchy and violence. He also explains how these sources can be used to explore issues in animal law, property law, public health law, euthanasia, and civil commitment.


The *Star Trek* Enrichment Series was a six-week, noncredit course for first-year students at the Howard University School of Law. It was designed to reinforce students’ understanding of doctrine and connections between law, culture, and society, without the pressure accompanying traditional courses. This article explains the pedagogical goals of the course, the use of a dedicated TWEN site
for assigned materials, and the interplay between clips of Star Trek episodes and group skills exercises in class.


This article addresses the educational benefits of using graphic video as a teaching aid in animal law. Acknowledging that such videos may cause student distress, Timoshanko offers principles to help professors identify appropriate graphic videos and then applies them to a video showing the surgical castration and tail docking of a piglet. He states that the principles are relevant to the use of graphic video in other courses such as human rights law or the law of armed conflict.


The author explores the pedagogical advantages of using popular culture to introduce law students to legal diversity. As an example, she explores the French television show Engrenages, broadcast in the United Kingdom as Spiral, and explains how it can engage law students in an exploration of culturally different approaches to law and legal systems.

Presentation and Clicker Technology


See supra p. 333.


New research on mirror neurons indicates that PowerPoint lectures might impede student learning if the professor focuses on the presentation without interacting with the material. Becker discusses this research, explaining how such interaction would allow students to mirror a professor’s knowledge base and develop a deeper understanding of the material. To facilitate engagement with the material, she recommends that faculty plan their physical presentations so that students have visual cues to mirror.


An instructional technologist at Albany Law School writes about how one law professor used eInstruction’s Classroom Performance System in his criminal law class. She found that the system increases class discussion, encourages involvement by shy students, and allows professors to assess their own teaching and monitor student performance. An online student survey yielded positive reviews about the use of clicker technology to enhance learning.

Building on her previous work on CRS technology, the author analyzes law student attitudes to its use. She explains her survey methodology, noting student resistance to CRS use for graded summative assessments. The article also includes a best practice guide based on the survey results, which are presented separately in an appendix. Finally, the author offers examples of how CRS technology can be used to teach law and suggests areas for further research.


Easton presents findings of a CRS trial in the Manchester Metropolitan University’s LL.B. program. In this study, the CRS included options for multiple choice, yes/no, true/false, numerical, and free text responses, which could then be manipulated on a large screen for the entire class to view. The author concludes that CRS provides an opportunity to promote high-level conceptual skills, deep understanding, and an engaged community of legal problem-solvers.


OWL is QUT’s web-based CRS, designed to integrate virtual and physical learning spaces to facilitate live collaborations between students and academics during face-to-face instruction. OWL offers a microblog, a polling feature, and podcast class recordings. Based on surveys of law students in a pilot program, the authors conclude that OWL should be used to promote student engagement in face-to-face classes. They also conclude that the survey findings support a reevaluation of pedagogy.


QUT law students participated in a pilot of a web-based CRS. The CRS was designed to facilitate live collaboration between academics and students using laptops or web-enabled mobile devices within a physical learning space. This conference paper summarizes and evaluates the pilot, reporting that participants perceived the technology to be effective in engaging students, encouraging critical thinking, and improving learning outcomes.

25. See infra this page.

The author explains how she uses PowerPoint’s automatic advance feature to create weekly “Silent Scrolling PowerPoints” on topics of interest to her first-year law students. These are shown before class when students are settling into their seats. She examines the pedagogical benefits of this method, suggests ways in which it could be used for any law course, and includes a playlist to illustrate the types of topics that work well in this format.


Although digital devices can distract first-year law students from classroom learning and exacerbate their isolation, they can also be used to enhance engagement and foster connections with classmates and instructors. To this end, Matthew discusses QUT’s OWL, a web-based CRS that promotes live collaboration between instructor and students. Preliminary findings indicate that OWL encourages student engagement in real-time face-to-face instruction but is less relevant as students become more confident about speaking in class.

Melton, Pamela Rogers. “Click to Refresh: Audience Response Systems in the Legal Research Classroom.” *Perspectives: Teaching Legal Research and Writing* 17, no. 3 (Spring 2009): 175–78.

Melton discusses the use of ARS technology in the legal research classroom to assess prior knowledge, identify misconceptions, and employ peer instruction. After explaining the benefits of clickers, she identifies considerations for prospective adopters and guidelines for users to follow.


To enhance students’ in-class engagement, the authors used TurningPoint CRS during large law lectures at Newcastle University. The technology allowed students to respond in real time to multiple-choice questions. Based on qualitative and quantitative analysis of student surveys, the authors concluded that CRS could enhance the student experience in large lectures. They also observe that CRS provides a formative assessment technique to identify struggling students and the concepts that they find difficult.


The author describes his use of TurningPoint, an ARS, in his 2009 evidence class. Advantages included increased active participation, decreased reliance on laptops for passive note taking, and immediate feedback to students. Drawbacks included teaching time lost to pauses while students responded to questions and hypotheticals and particular quirks of TurningPoint.

The author explores the use of a CRS to promote active learning in large sections of a business law course and recounts the obstacles and advantages encountered in integrating the technology into the curriculum. A survey revealed that students who used clicker technology perceived that they were afforded an opportunity to participate in class. Steslow concludes that increased usage of clickers for active learning exercises may further enhance student learning and comprehension.


The author discusses the use of ResponseWare to increase student engagement and provide the professor with an opportunity to effect immediate changes in a lesson and long-term changes in the course itself. She also addresses the challenges of designing questions to achieve particular learning outcomes.

Simulations and Games


At QUT, an introduction to law course uses web-based simulations to provide formative feedback and improve problem-solving skills. Ruby’s Music Festival, an interactive online activity about the operation of a music festival, introduces students to contract, criminal, and tort problems and provides the analytical tools with which to resolve them. The authors discuss design and implementation of the activity and its approach to teaching and learning. They report favorable responses from students and improvement in summative assessments.


This book chapter discusses the use of gaming and simulation technologies to engage law students in learning. The authors explain how they designed and used virtual simulations to help law students learn how to practice law in authentic situations and how they subsequently extended and improved the simulation and incorporated it into a blended learning environment. The chapter also explores the academic and training practices needed to support the use of authentic simulations in teaching and learning professionalism.

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26. Simulations are indirect, vicarious experiences that attempt to recreate live-client situations by the technique of role-playing. Gerald F. Hess & Steven Friedland, Techniques for Teaching Law 193 (1999). In legal education, a computer simulation is a digital environment representing aspects of a legal reality in which a user can create and manipulate data to learn legal concepts, procedures, and values. Although similar, games involve a competitive component and may require several students to participate. Michael A. Geist, Where Can You Go Today? The Computerization of Legal Education from Workbooks to the Web, 11 Harv. J.L. & Tech. 141, 151 (1997).

This book chapter discusses a pilot program at HKU that added experiential learning to its postgraduate law training. The author explains the use of SIMPLE, an open source e-learning platform, which placed students into realistic professional situations involving multiple transactions, learners, resources, problems, and paths to resolution. He also describes the operation, goals, and expected outcomes of the pilot test.


HKU adopted SIMPLE to facilitate active learning through realistic simulated transactions in a virtual law firm. Although the goal was to eliminate unwanted and costly intermediaries (including law libraries and instructors), the authors found that the technology had itself become an unintended and undesirable intermediary that hindered learning. Concluding that no program should try to eliminate the teacher as facilitator, designer, and mentor, they propose adapting technology to law students’ changing e-behaviors and different backgrounds and cultures.


The authors criticize regulatory reviews of legal education for overemphasizing curricular gaps and neglecting methods for achieving prescribed outcomes. They demonstrate how experiential learning in the United Kingdom was enhanced by using SIMPLE, an e-learning platform for simulating legal practice used in Australia and in HKU’s postgraduate law program. They underscore the importance of collaboration among legal educators, university administration, and the legal profession to increase the active role of technology in legal education and training.


This article reports the use of animation, combined with multiple-choice questions, to engage Australian law students in problem-based learning with formative feedback in a legal ethics course. The authors discuss technical considerations, software solutions, and their own animation scenarios. They conclude that most respondents found that the animations enhanced learning and memory but that some students will always prefer text. They also summarize student suggestions for improvement and outline their ideas for future directions.


This book chapter explores the benefits of using electronic simulation as a method of learning and assessment for computer forensics students whose undergraduate studies include a law module. Its value to legal educators lies in its discussion of
the design and production processes, implementation, use of a VLE to host the simulations, assessment, and evaluation. The particular simulation discussed—a dispute over Internet domain names—is easily adaptable to doctrinal and skills courses in law school.

de Vey Mestdagh, C.N.J. “Learning from the Law Game: The Simulation of Legal Tasks as a Teaching Method, Considerations Concerning the Cohesion of Levels of Performance, Education and Simulation.” In *Learning in a Virtual World: Reflections on the Cyberdam Research and Development Project*, edited by Harald Warmelink and Igor Mayer, 67–82. Nijmegen, Neth.: Wolf Legal, 2009. This book chapter discusses two online simulations that teach skills, doctrine, and problem solving. The Law Game requires students to perform as legislators and judges, using a website, email, an online forum, e-lectures, and an e-book. Cyberdam teaches lawyering skills using a law practice simulation. The author concludes that the Law Game positively affected the knowledge required to construct new solutions. However, although Cyberdam effectively trained users in the required skills, participants were reluctant to cooperate during the game.

Donohue, Laura K. “National Security Law Pedagogy and the Role of Simulations.” *Journal of National Security Law & Policy* 6, no. 2 (2013): 489–547. At Georgetown Law, National Security Law Simulation 2.0 employs a virtual environment that immerses students in a multiday, real-world exercise involving both doctrinal and experiential learning. Players interact in a cyberportal that provides access to news media, law, and legal documents. A Virtual News Network runs continuously, requiring students to deal with rapidly changing facts and abbreviated timelines. Students are responsible for their decision making. The author concludes the program achieves pedagogical goals for national security law courses.

Douglas, Kathy, and Michele Ruyters. “Developing Graduate Attributes Through Role-Plays and Online Tools: Use of Wikis and Blogs for Preparation and Reflection.” In *Global Learn Asia Pacific—Global Conference on Learning and Technology*, edited by S.M. Barton, J. Hedberg, and K. Susuki, 316–23. Melbourne: AACE, 2011. This conference paper discusses the use of online tools with role-plays in the J.D. program at RMIT University in Australia. The authors explain the use of Web 2.0 resources to prepare for and debrief advocacy and negotiation role-plays. Concluding that the use of Web 2.0 tools in a blended learning design enhances student engagement with tasks and reflection, they emphasize the importance of facilitating students’ understanding of the use of online tools.

Ferguson, Daniel M. “The Gamification of Legal Education: Why Games Transcend the Langdellian Model and How They Can Revolutionize Law School.” *Chapman Law Review* 19, no. 2 (2016): 629–57. This article recommends using gamification to engage law students in learning. Ferguson summarizes the educational problems that gamification is likely to tackle and offers three solutions: (1) supplementing lecture courses with in-class games and ARS; (2) using a flipped classroom that requires students to play online, interactive games outside the classroom; and (3) gamifying law school from the ground up by moving as much of the legal education experience online as possible.

At Linköping University in Sweden, students participate in virtual cases to learn contract law. Using technology adapted from medical education, instructors create case files that require students to read contracts, interview clients, propose solutions, and justify answers. After discussing technological challenges and positive student feedback, the authors recommend that future studies explore learning outcomes and the use of virtual cases for exams.


PeaceMaker is a video game that simulates the Palestinian-Israeli conflict and allows participants to engage in dispute resolution in the role of either the Israeli prime minister or the Palestinian president. This article discusses the use of gaming in legal education; describes PeaceMaker's structure, function, and classroom application; and explains the theories and concepts of international conflict resolution that can be taught through its use.


See supra p. 367.


The author, a law professor at FSU College of Law, co-teaches a course on international trade transactions with a Shanghai University professor. The course includes an international trade simulation that uses software, video conferencing, and online messaging to connect participants in four countries. Lee addresses preparation, funding, faculty coordination, and student coaching. She concludes that technology-based simulations provide law students with a comprehensive learning experience while restoring the classroom as an interactive community.


Lamenting legal education’s inability to keep pace with other educational sectors in the use of digital game-based learning, the authors argue that computer gaming simulations can effectively teach legal theory and skills. This book chapter outlines the design, development, and implementation of Simulex, a learning environment for the creation of online role-playing litigation games. It also describes the result of its experimental use in a civil procedure course, previews future developments, and makes recommendations for the development of legal education games.

This book chapter traces the early history of legal education's use of digital technologies in simulations. Maharg discusses the work of the Glasgow Graduate School of Law at the University of Strathclyde, where law students worked in a virtual town on the web. He also outlines ways in which simulations could be made more educationally effective within jurisdictions and globally. Finally, he addresses possible technological futures for simulation in legal education, including machine learning and augmented reality.


In this book chapter, Maharg explores the use of digital simulation in legal education, focusing on Ardcalloch, a VLE in the form of a virtual town on the web. He reports on the technical testing and positive user evaluation of the online simulations, concluding that such situated learning is critical at every stage of legal education. Finally, Maharg explains a large-scale digital simulation initiative in Scotland and describes efforts to develop similar projects in American law schools.


This paper examines whether digital simulations are effective teaching, learning, and assessment tools in legal education. The author describes the use of SIMPLE as a transactional e-learning environment to engage students in Scotland's law schools in complex professional simulations. He concludes that the simulations engage students, facilitate their learning in professionalism, and provide an effective assessment environment.


This book chapter reviews the literature on simulations and technology in legal education. The authors discuss their search methodology and findings, propose future directions for e-simulations in legal education, and identify research needs in this subject. A comprehensive bibliography of relevant material is included at the end of the chapter.


The authors of this book chapter discuss Cyberdam and SIMPLE, two generations of simulation authoring tools for professional learning. Using their experience with law students working in Ardcalloch, a virtual town on the web, they reflect on the different aspects of Cyberdam and SIMPLE that support law stu-
dent learning and the ways in which their design influenced the legal simulations and games developed and used.


In the second part of this article, the author explains her use of a software package called Game Show Presenter. This software enabled her to provide her legal writing students with a competitive multiple-choice quiz set up in the form of a game show. In addition to offering an enjoyable learning experience, the software provided immediate feedback to students and professors alike.


The School of Law at Queen's University Belfast developed an interactive learning and assessment tool for an international humanitarian law module by modifying the Arma 3 tactical war simulator. Formative scenarios familiarized students with the combat situation and the computer technology. Summative assessment tested their legal understanding of increasingly challenging conflicts. The authors examine the project’s learning objectives, advantages and disadvantages, and lessons learned. In particular, they explain why unforeseen technical challenges required removing the summative assessment exercises.


At Leeds Metropolitan University, the authors used a VLE to develop criminal law simulations for 400 law students in a virtual law practice environment. The technology enabled the large group to be divided into smaller “law firms” that promoted group cohesion and communication. Although some participants resisted team activities, the authors conclude that positive student evaluations were attributable to intensive faculty involvement with and management of group work, which would not have been possible without the VLE.


Nathenson discusses his experiences teaching cyberlaw, intellectual property, and civil procedure using live, online simulations in which students role-play as attorneys. After discussing his reasons for developing online simulations, he introduces the online tools and explains how the simulations encourage immersive learning in doctrine, theory, skills, and values. Examining the benefits and drawbacks for students, faculty, and institutions, he concludes that the advantages outweigh the tradeoffs.

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Responding to Judge Frank Easterbrook’s 1996 article, which argued that cyberlaw was unworthy of inclusion in the law school curriculum, Nathenson discusses his experiences using online role-plays to teach cyberlaw. He explains how to build these role-plays, describes three simulations, addresses teaching methodology and formative assessment, and evaluates their effectiveness. He concludes that an immersive role-playing approach can integrate practice skills, theory, doctrine, and values, and create a significant capstone transition to law practice.


In this piece, the author explores game-based digital technologies, arguing that they can be used to create learning tools for legal education, particularly abstract concepts such as ethics and justice. Where budgetary constraints preclude customizing games, he suggests designing assignments based on existing games. Students should be required to report and discuss the themes within these games and to compare them with real-life situations they may encounter as legal professionals.


This book chapter describes how a teaching team at Newcastle Law School in Australia directs and produces YouTube videos with professional actors portraying parties involved in a dispute. First-year law students interview their clients and develop a case file through a range of interrelated tasks and activities, which are linked and released on Blackboard. The authors discuss the strengths and weaknesses of the simulation and suggest directions for its use in other law courses.


Schaefer urges legal educators to use complex simulations that help students navigate the gap between law school and practice. She discusses a simulation in which students generate the course materials for a complex business dispute via email, with the dispute becoming the lawsuit in her e-discovery course the following semester. She explains how this course affords students the opportunity to master both e-discovery doctrine and skills and how it can be adapted to other courses.

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Students in a probate law course at Anglia Ruskin University participated in a transactional learning project in which an online collaborative simulation and role-play replaced lectures, workshops, and tutorials. The author describes the logistics and delivery of the online course, considers pedagogy, and provides statistical analysis of student feedback. He suggests that these findings illustrate the project’s success in developing student learning in a self-directed environment and in inculcating other skills such as teamwork and time management.


In this book chapter, the authors consider how an online transactional simulation and assessment in an employment law course enhances learning and prepares students for law practice. They explain the operation of the simulation, the use of video-streaming technology to produce witness statements, and the pedagogic importance of a VLE such as Blackboard for implementing the module and assessing student work.


Following up on an earlier evaluation of a virtual law clinic, this literature review explores theoretical frameworks for designing virtual simulations, as well as the challenges and issues faced in the design process. The author concludes that well-designed virtual simulations can develop professional skills, practice skills, and professional identity.

Social Media


The authors argue that faculty should avoid outdated technology, such as PowerPoint, podcasts, and clickers, and use technology mirroring that used by law students. To this end, they propose adding pop culture videos to illustrate legal issues, music playlists to provide memory triggers, and social media instead of static course websites. They conclude that these technology tools have augmented academic coverage and made their courses more interesting and engaging.


At the University of Southern Queensland, Second Life provided the VLE to deliver an advocacy role-play exercise to external students in a criminal law

30. See supra p. 338.
course. This article examines the benefits of this environment as a teaching and learning tool and analyzes student survey responses. The authors also describe the exercise, student preparation and training, and technological challenges. They conclude that the exercise engaged students in an authentic experience and enhanced learning.


This essay addresses the ways in which law professors are using Twitter, highlighting the risks inherent in using a medium that imposes a numerical limitation upon characters. The author argues that pedagogic use of Twitter should be avoided unless it is educationally superior to other methods of communication.


The authors report on their research, which hypothesized that social media platforms could be used to improve law student engagement and to enhance learning and teaching. For example, they describe the creation of an online community that used a Facebook page for student interaction about mooting, supported by a WordPress blog featuring videos of mooting. After explaining their methodology and results, they conclude that the flexibility of social media increased student engagement and self-regulation of conduct.

Binder, Perry. “Creating Social Media Law Projects to Sensitize Business Students to Appropriate Digital Conduct.” *Southern Law Journal* 27, no. 2 (2017): 327–65. To sensitize business students to appropriate and ethical digital practices, Binder developed many student projects over several years. His article details these assignments to illustrate the use of social media law projects—including Facebook and Twitter—as active learning tools. It also addresses the ways in which such projects can foster student understanding of international legal issues. Finally, the article examines lessons learned when developing these projects. Binder concludes that these exercises are easily adaptable for use at the graduate level.

Blissenden, Michael, Sandra Clarke, and Caroline Strevens. “Developing Online Legal Communities.” *International Journal of Law and Management* 54, no. 2 (2012): 153–64. The Universities of Western Sydney, Greenwich, and Portsmouth collaborated to develop and evaluate the use of closed social networks, such as wikis and discussion boards, for first-year law students. Their goals included easing the transition to law school, merging technology with active learning, and preparing students for law practice. The authors found a direct correlation between interaction, learning, and assessment, concluding that students are more likely to participate meaningfully when they perceive a tangible benefit in the form of a grade.

Butler, Des. “Second Life Machinima Enhancing the Learning of Law: Lessons from Successful Endeavours.” *Australasian Journal of Educational Technology* 28, no. 3 (2012): 383–99. At QUT, two interactive multimedia programs, Air Gondwana and Entry into Valhalla, use Second Life to create authentic environments in which to learn negotiation skills and legal ethics. In this article, Butler employs graphics to
explain the underlying narratives and legal issues raised and considers both positive and critical feedback from students. He concludes that such immersive simulations offer authentic experiences, an active and practical approach to learning, and an easier transition to the practice of law.


The OO Files is a suite of online modules used in a contracts course at QUT. The modules are accessed in Second Life and involve a continuing story about clients of a fictional law firm. Butler explains how the narrative environment engages students in learning, with formative feedback via online multiple-choice questions. He describes development of the modules, cost and time commitment, and technology used. Based on positive student evaluations, he concludes that the program enables students to explore contracts law in depth and at their own pace in a nonthreatening environment.


This is a final fellowship report discussing QUT’s use of an online multimedia program, Entry into Valhalla, to teach legal ethics in the Second Life environment. Butler discusses his methodology, program content, and lessons learned. He concludes that although online multimedia programs provide a more realistic context for learning legal ethics, they are best situated in a blended learning environment that also includes instruction in the underlying subject matter.


Entry into Valhalla is a multimedia program used to teach legal ethics at QUT. Each module uses Second Life to create scenarios in which an attorney seeks advice from senior partners about an ethical dilemma. The author explains the production and evaluation processes, the scenarios, and lessons learned for application in other law courses. He concludes that such virtual apprenticeships motivate students to learn and facilitate a smoother transition from academia to law practice.


Air Gondwana is a multimedia program created for the contracts course at QUT. It focuses on a fictional airline’s dealings, using online modules, videos created in Second Life, and in-class role-plays. Butler discusses the program’s development and pedagogy, describes the modules, and summarizes positive student evaluations. He also explains how the program reflects elements of various learning theories and concludes that Air Gondwana provides an authentic, engaging, and enjoyable learning experience.

Two criminal law courses at QUT use the Sapphire Vortex, a suite of online modules created in Second Life. The videos depict crimes and courtroom proceedings, incorporate readings and multiple-choice questions, and include legal commentary by prosecuting and defense attorneys. They are designed to facilitate class discussion, with students preparing judicial rulings on the motions. The authors opine that when law school is unable to provide a real-world experience, students can nevertheless become actively engaged in authentic learning.


See infra p. 419.


To explore the impact of technology on the field of employment law, the author used Second Life in her employment discrimination seminar. Adopting avatars as identities, students visited a virtual law office and a virtual employment agency. Cherry explains the mechanics of the lesson and offers strategies for overcoming problems. She concludes that students deepened their understanding of the law, broadened their perspective of employment discrimination, and developed cultural competency skills vital to client representation.


See infra p. 421.


Greaves explores computer-aided qualitative data analysis of social media as a new field of legal education scholarship. He posits that the use of social media in legal education is replete with opportunities for learning, teaching, and research because it expedites collaboration, sharing, and collection of information and commentary. Examples include analysis of social media discussions and legal educators’ scholarly communications. The article also considers research ethics for studies involving social media and human participants.


See infra p. 416.

Hemingway examines the use of Facebook posts to teach professionalism and professional responsibility in law schools. She explains the benefits of using a multiple-choice format and clickers to teach the material. She notes that this method encourages students to explore attorney dilemmas and ethical discretion in a familiar social media context instead of merely memorizing and applying abstract rules. The article concludes with a summary of the advantages and the disadvantages of this approach.


An international legal research skills course used Second Life: (1) to provide an immersive, interactive tour of international law firms, courts, libraries, and government agencies; (2) to attend a special event hosted by a European parliamentarian; and (3) to provide a forum for class presentation of research pathfinders by students in avatar form. Despite some technological challenges and the increased attention needed by novices, Hudson concludes that Second Life increased class participation and enhanced research instruction.


See infra p. 411.


This essay explores the use of Facebook to expand courses beyond classroom walls in a familiar online environment. The author provides practical advice on setting up a Facebook group and using privacy controls. She also discusses the type of classroom information that can be shared through the Facebook group, such as links, short comments, long discussion topics, photos, videos, and events, and suggests options for publicizing class events, such as guest lectures.


At QUT, a blended learning approach was used to teach negotiation. The authors used Mosswood Manor, an online multimedia environment employing Second Life videos and documentation to depict conflicts. Students researched and wrote legal advice, formulated negotiation plans, participated in role-plays, and reflected on skill development. The authors conclude that Mosswood Manor created an authentic learning experience leading to greater engagement and improved learning outcomes, which would not have otherwise been possible for this group of 500 students.


See infra p. 412.

Using a hypothetical problem in the Second Life environment, UWA undertook a project to develop the oral communication skills of law students in an equity and trusts course. The author explains the context, creation, pedagogy, and implementation of the project. Noting that the rudimentary animation of the avatars actually oversimplified nonverbal communication, she nevertheless concludes that participants became more sensitive to the importance of critical listening and observation.


This article addresses issues raised when legal actors—including law students, faculty, and law schools—use social networking sites, such as Facebook. Vinson identifies the benefits of social networking and examines the hazards that arise when the boundaries between personal and professional worlds are blurred. After providing examples of adverse consequences, she makes recommendations for educating users, raising awareness, and developing written guidelines that explicitly address the use of social networks and their effect on the legal community.

**Tutorials**


This article describes the CALI authoring process and the lessons it conveys to faculty about learning goals, class preparation, the effective use of class time, and good teaching methods. The author concludes with a call to action for law faculty to address student learning thoughtfully and carefully, both in and out of the classroom.


See infra p. 411.


Case Analysis and Structuring Environment (CASE) is a web-based software program that helps students to find, read, structure, and analyze judicial decisions. Muntjewerff explains the structural design, capabilities, platform, and implementation of CASE. She also describes a typical CASE session, illustrated with graphics. She recommends further testing of the claim that CASE helps students to understand the rhetorical structure of a decision and suggests extending the program with a knowledge model.


HYPATIA is an interdisciplinary research program used in law schools in the Netherlands for the design of electronic instructional materials. In this article, the author describes three instructional environments within HYPATIA: (1) PROSA,
for learning to solve legal cases; (2) CASE, for learning to structure and analyze case law; and (3) e-See, for learning to identify legally relevant facts in a real-life dispute.

Miscellaneous Instructional and Learning Technologies


To engage Millennials in law school learning, the authors advocate a multifaceted teaching approach, utilizing technology to encourage student-centered learning. Suggestions include reflective writing posted anonymously to a course blog, electronic portfolios, flipped classrooms, and online formative assessment. For such methods to succeed, law professors must involve students in the learning process at every step.


Blissenden’s storytelling methodology, which he uses in his revenue law class and has been described elsewhere, is designed to encourage students to reflect critically on the background of a reported case and the wider context of the decision. The author recommends guiding students to various websites and providing them with a platform from which they can operate. This entire process, he concludes, develops skills that students can use to inform their future working practices.


The author recounts his experience assigning law students to use the web to investigate, examine, and deconstruct reported cases for learning purposes. After creating their story of prelitigation events, students present their interactive multimedia creations for class discussion. Questionnaires revealed that most students believed the exercise helped them understand the legal principles involved. Blissenden cautions that students may need additional instruction in using the web and web-based applications to locate and retrieve relevant information.


The University of Cumbria instituted an e-portfolio pilot project in its legal skills and method course, using PebblePad software to support personal development planning and reflective learning. After discussing the pedagogic rationale for the project, the authors assess data collected through student questionnaires, focus groups, and staff reflection. Concluding that e-portfolios enhance learning, they recognize that additional attention must be paid to providing guidance on software use, activities for reflection, and online tutoring skills.

31. See supra p. 346 and infra this page.

Broussard discusses the impact of Web 2.0 technologies on legal education and argues that law schools must adapt to the changing needs and learning methods of the digital generation. She briefly describes NYLS’s experimental first-year iSection, which uses Web 2.0 technology to teach law and legal skills and to test and evaluate technological innovations that can be incorporated into the J.D. curriculum.


To overcome the learning obstacles that traditional casebooks pose for novice learners, Brown developed a “Web Investigator’s Template.” The template, included in this article, helps students “reverse-engineer” appellate cases to find supplemental information about participants, documents, and historical events, which they then use to write case briefs, interview clients and witnesses, draft documents, and negotiate. He concludes that the ability to look behind the appellate report engages student learning and reveals how law and problem solving are intertwined.


This book chapter traces the use of technology in legal education, from overhead transparencies to PowerPoint, analogue to digital media, and Web 1.0 to Web 2.0. The author examines several innovations in law teaching and highlights examples of best practices. He cautions faculty not to adopt a “one size fits all” approach to integrating technology into the law school curriculum, pointing out that students born in the digital age are not always proficient digital natives.


CQUniversity tested five visual techniques to interact with mature online law students in a three-year LL.B. program: digital flashcards, storyboards, cartoons and comics, animation, and branching narrative-centered simulations. This article discusses the objectives, specific technologies, and the pros and cons of each initiative. Numerous images are included to demonstrate the operation of each approach.


Law students in a legal ethics course at CQUniversity participated in an online, team-based assignment requiring them to construct a storyboard and script for an ethical problem of their choice. They received an example, an assessment rubric, instructions, and a storyboard template. Students reported that the experience provided insight into real-life ethics issues, taught them how to manage projects and work in teams, and developed their technical skills. The authors also found that the exercise encouraged deeper learning practices.

The authors report on a study querying whether student creation of cloud-based digital flashcards would enhance learning in an online constitutional law course. Despite a thoughtful approach to design and scaffolding, the results showed both a lack of student engagement and deep learning, as well as skepticism about the reliability of peer flashcards. The article discusses lessons learned and suggestions for future research. Appendices include the assignment and rubric, instructions for using the software, and examples of student digital flashcards.


This article discusses the use of student-generated digital flashcards in legal education, including interactive cards incorporating Web 2.0 technologies. The authors explain how the creative process itself promotes learning, critical analysis, and synthesis. After proposing a taxonomy of digital flashcards, they explain how students may use FlashCram, a free cloud-based software, to assemble and share their work. The article concludes by considering further potential uses for digital flashcards, including modeling them for competitive games.


This study sought to determine whether the use of print and digital flashcards would improve the assessment results for contract law students in an Australian online law degree program at CQUniversity. The results of participant surveys and interviews are evaluated here by the authors, who conclude that although the flashcards had no impact on grades, students who received flashcards rated them as valuable.


This article evaluates the pedagogic benefits of using wikis and Web 2.0 tools to increase engagement in legal education. Research into student perceptions of these resources revealed that students value their flexibility and show a higher level of evaluative skill when they can overcome discomfort with the use of Web 2.0 tools for collaboration, frustration with the technology and instructions for its use, and an uneasy co-existence between social and educational norms.


Collins argues that the virtual age requires law school curricula to embody new technologies that frame law students’ journeys of personal transformation. Reflecting on narrative and identity, he proposes using a story interface approach to educational design instead of merely moving the conventional textbook curriculum model online. In property law, for example, such an approach would include tracing the life cycle of a particular plot of land through time, thereby injecting the student into the story.

At the University of Sheffield School of Law, legal history students used Web 2.0 technology to create a wiki study guide. This article examines the practical and pedagogic reasons for this assignment. It also discusses the curriculum design, outlines the educational and technical means used to develop the module, and explores concepts of collaboration. The authors conclude that the project was a success because it taught teamwork and IT skills, improved communication, and stimulated new learning.


This article explores three technology developments at Stockholm University Faculty of Law: (1) an interactive and immersive role-play game for a criminal procedure course, (2) the possibility of offering DL postgraduate degree programs outside the EU, and (3) the development of electronic assessment systems. The author advocates combining digital teaching methods with electronic assessment in a DL program to manage the increasing numbers of law students and to promote greater creativity in teaching and learning.


This article analyzes how e-portfolios help law students develop toward achieving learning outcomes for proactive professional development and attaining meaningful employment, in turn encouraging stronger applications to the law school. It also addresses how e-portfolios help students develop other basic competencies, using LRW as an example. The article concludes with an analysis of lessons learned from the efforts to implement a curriculum using e-portfolios, including the need to have proper training and to learn from e-portfolio curricula in other disciplines and other law schools.


The NuLawLab at Northeastern University School of Law integrates technology instruction with training in human-centered design, aiming to make new technology tools responsive to changing human needs. This approach, Jackson argues, prepares law students to create innovative technology solutions while improving legal institutions and programs. He provides examples of this approach from NuLawLab, including the curriculum itself, the creation of online teaching games, and placement opportunities.


The authors describe a seminar assignment that required students to edit a Wikipedia article. They make a pedagogical case for converting law students from consumers to producers of Wikipedia’s legal content. They also discuss the particular assignment, focusing on the editing of a stub article and the challenges of assessment. After reflecting on the limitations of this exercise, they conclude with a resounding endorsement of its benefits. An appendix lists links to resources for similar assignments.

Pistone documents the conditions propelling law schools to increase the use of learning technologies, identifying mobile computing, the demands of digital natives, and the increasing need for attorneys to use technological innovation. She identifies areas for growth in online instruction and instructional materials, opinioning that such technologies could combat the challenges of declining enrollments, rising student debt, and shrinking job opportunities.


This article explores the use of audio, visual, and web-based technologies to assist part-time first-year law students in a required core course. Topics include classroom podcasting, PowerPoint, TWEN, and CALI lessons. Survey results indicate that students not only used these technologies but also considered them valuable educational resources.


The authors evaluate their experience embedding new technology into teaching and learning at Coventry Law School. Specifically, they discuss the use of multiple-choice questions for formative assessment, CRS to promote participation in lecture settings, and peer review in a skills module. Only the peer assessment exercise had low student engagement, which the authors attribute to a lack of reciprocal feedback. They call for further work to determine how to integrate peer review more usefully into the learning process.


Teninbaum built a platform, SpacedRepetition.com, to help law students harness the technology of spaced repetition, a learning technique that improves recall. After explaining the science behind this technique and the research supporting its use, he reports that graduates who used his platform to supplement bar preparation courses had a 19.2 percent higher passage rate than those who did not. Teninbaum observes that student use of improved memory techniques gives their professors more time to devote to teaching legal analysis.


Thomson used two wiki projects to increase student engagement in his administrative law class. The first wiki involved a collaborative course outline; the second wiki involved research projects on federal agencies. Thomson discusses the challenges and rewards of both projects.


At the University of South Australia Law School, a pilot project embedded e-portfolios in three courses to develop reflective learning. The authors describe the project pedagogy and challenges encountered. A survey revealed that students viewed the e-portfolios as an assessment tool rather than as a learning tool and were unenthusiastic about the project. The authors conclude that the evidence
here did not support the proposition that the e-portfolio pedagogy leads to deeper learning and professional identity development.

**Law Schools**

**Law Faculty**


The goal of this paper is to provide overwhelmed law professors with a method for controlling the flow of digital information and saving and organizing electronic notes. It describes some electronic resources, explains how to use them, and recommends certain online tools.


Rapp identifies eight ways in which new law professors can effect technological change and discusses steps law schools can take to promote them in this role. Such steps include diversifying faculty workshops, recognizing the time commitment involved in serving as ad hoc technology consultants and troubleshooters, and being receptive to requests for additional funds for technology. An appendix reproduces the author’s instructions for faculty using the university Blackboard-based class webpage program.

**Law Libraries and Librarians**


This article recounts the responses of the Yale and Cornell law libraries to the rapidly changing needs of sophisticated digital users. Such responses include shifting to digital collections, repurposing physical space, offering nontraditional services, and expanding collaborative opportunities with other law libraries. The authors conclude that survival of academic law libraries requires them to remain adaptable to change, committed to innovation, and sensitive to patrons’ needs.


The authors explain how Yale Law Library’s suite of on-demand services enhances user experience in the digital era. The system provides rapid scanning and delivery of scholarly works, rapid delivery of print books and journals to users’ home addresses, and analysis of user requirements to ensure their collection meets those demands. They conclude that the program’s success is reflected in strong usage figures, positive user feedback, and its adoption across Yale libraries.


In 2005, the University at Buffalo Law Library undertook a major website redevelopment project that sought not only to redesign the site but also to address
long-term goals, including web management and maintenance. This article discusses the evolution of this project and describes how moving website management to the cataloging department of technical services has increased creative collaboration across all departments.


Baker recommends that law librarians help law journals revise their publication agreements to include necessary updated provisions, such as open access considerations. Her article provides online research strategies to help them achieve these goals and recommends making these publication agreements freely available on law journal websites.


Academic law libraries must continually reexamine the need to collect and maintain print collections. Focusing on the collection of the University of Oregon Law Library, the author examines how much of print collections are available online. Her study, which she describes in this article, revealed only a slight increase in the overlap between total print and online holdings by title since the 1999 University of Washington study published by Penny Hazelton.32


After finding significant problems with data quality in academic law library online catalogs, Briscoe surveyed reference librarians about the consequences of such errors. Respondents agreed, almost unanimously, that poor data quality would affect the ability of patrons to find information. She concludes that inferior quality control can be addressed only by actively managing library processes, clearly defining performance expectations for library employees, actively preventing and correcting errors, and regularly reviewing and revising metadata.


An empirical analysis of 199 ABA-accredited academic law library webpages sought to determine how thoroughly they communicated or advertised their faculty services, such as research services and support for publishing or teaching. Based on the survey results, the author offers suggestions for promoting the law library to faculty, including unique services that respond to their increasingly complex multidisciplinary needs and interests.


Querying how libraries can maximize their value to law schools in a time of decreasing enrollment, budget cuts, and operational restructuring, Canick recommends that librarians help disseminate and promote faculty work through open sources.

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access efforts, including SSRN, ExpressO, and institutional repositories. If no such repository exists, then the library should invest in one to give faculty scholarship a global audience, build library credibility, forge community connections, and benefit society by making information accessible.


Despite significant changes in the way law faculty and students use the law library, Daly argues that today’s law library is still performing traditional functions while managing a mass of information that is constantly expanding and evolving. She concludes that law libraries will continue to occupy physical space and play essential roles in the scholarship and teaching functions of law schools.


Danner explores the evolving roles of law librarians in supporting faculty scholarship in an increasingly collaborative, international, and interdisciplinary digital environment. Within this context, the academic law library must include faculty liaison programs, faculty services librarians, electronic current awareness services, empirical research programs coordinated with other disciplines, open access repositories of faculty publications, and assistance with copyright agreements for scholarship going into publication.


This article discusses issues raised by the Durham Statement on Open Access to Legal Scholarship and addresses concerns about its appeal to end print publication of law journals. The authors call on law librarians to work with other stakeholders to explore preservation alternatives; to promote common format standards for archiving, preservation, and access; and to engage in dialogue with law school deans, editors, faculty, and vendors on the need for concerted action to preserve electronically published law journals.


The author chronicles the development of the law library at the University of Ghana, addressing the challenges of automating the library system and providing access to IT for faculty and students. He also briefly discusses the advantages of technology for law libraries in developing countries and plans for future improvements in the library’s information and communication systems.


Continuing their earlier work, the authors explore opportunities for innovation in academic legal reference services. They consider trends, such as social networking, that shape user expectations and influence the evolving role of academic

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law librarians. They suggest that law librarians increase their participation in the broader networked community and focus on systems development.


Once characterized as the heart of their law schools, law libraries must now adapt to the new digital reality of reduced funds and physical collections and increased use of electronic resources. This article examines the events that led to their current challenges. The authors discuss lessons that can be learned from public and university libraries and offer suggestions for expanding the academic law library’s role to provide new value to their law schools and broader communities.


This article explores the impact of technology on academic law libraries since Katharine Hepburn’s 1957 portrayal of reference librarian Bunny Watson in *Desk Set*. The author examines the effect of the Internet and search engines on legal research methods, academic law libraries, and legal research education. She underscores the importance of law librarians as conservators, guides, and teachers in this increasingly complex online environment.


This study explores the use of YouTube to promote good information-seeking practices among library users, particularly law students. Examples include using YouTube to provide virtual tours and online tutorials and to teach students how to evaluate online information sources. The author points out that these efforts can lead to benefits for students such as communication, socialization, and enhanced learning opportunities.


The authors outline tools and resources that librarians can use to improve law journal publishing and facilitate its evolution in a changing digital environment. Suggestions include supporting innovative publishing initiatives; assisting with marketing and retailing; advising student editors on copyright, data preservation, and version control; and helping journals adopt technical standards and improve accessibility to journal content. An appendix provides a checklist to help librarians select ideas most suitable to their own libraries and journals.


This text offers a comprehensive guide to cutting-edge developments that face today’s law libraries. Chapters are authored by innovators from all areas of legal librarianship, including academic law librarians.


When the University of Colorado Law Library received a substantial donation of print materials, the library’s staff was assigned to digitize the collection. This
article discusses the technological, cataloging, and management issues encountered during the project. The authors identify the benefits of undertaking such a project, reflect on lessons learned, and provide advice for law libraries contemplating digitization.

Mattson, Ingrid B. “Untapped Potential: A Study of Academic Online Legal Research Guides.” Legal Reference Services Quarterly 32, no. 4 (2013): 247–73. This article examines the content, structure, and format of online legal research guides at 197 ABA-accredited law school libraries. Mattson identifies four major types of guides and calculates the total number of online research guides produced by academic law libraries. Analyzing the survey results, which are presented in an appendix, she provides examples of guides that work well; identifies challenges involving technology, maintenance, updating, and usability; and suggests best practices for overcoming these challenges.

McCormack, Nancy. “Cancellation of Print Primary Sources in Canadian Academic Law Libraries.” Law Library Journal 104, no. 3 (2012): 263–84. McCormack discusses the results of a survey of academic law library directors in Canada regarding the cancellation of primary source material in their libraries. Her article describes the criteria ascertained by the survey for cancellation of print material and discusses the legal community’s reservations about electronic law libraries. She also discusses disadvantages of electronic libraries, including perpetual payment of licensing fees and the demise of the interlibrary loan. An appendix reproduces the survey.


As libraries’ digital resources expand, finding the right resource is increasingly difficult for academic users. The Pence Law Library simplified this task using Pathfinder Pro, a context-sensitive linking tool that tracks users and makes intelligent suggestions based on electronic resources in the library’s online catalog. The author suggests that this tool will help students understand the structure of bibliographic descriptions, the semantic connection of this description to other materials, and the concept of controlled vocabulary.


This article discusses the author’s attempt to learn to use Second Life to support law school and law library activities. After participating in a workshop that was compatible with her learning style, Murley not only succeeded but also became more aware of her own learning preferences and those of others.


As legal scholarship and education become increasingly international and interdisciplinary, there is a growing need to develop an open ecosystem that emphasizes inexpensive global access to legal information. Palfrey argues that, before this virtual environment can be achieved, law librarians must engage in global collaboration and coordination to develop its blueprint. To this end, he discusses cornerstones that must be put in place to build this legal information ecosystem.

This article reports on a survey of U.S. law libraries regarding indexing of electronic materials, including cataloging practices and methods of making electronic materials available to and discoverable by patrons. Thirteen academic law libraries participated. The authors observe that the rapid transition from print to electronic materials in academic law libraries has been driven by budget pressure rather than choice and planning.


Richards reports on a survey assessing the use of non-MARC descriptive metadata in AALL libraries, including academic law libraries, focusing on the extent to which that usage enables metadata interoperability. Examples include digitizing legal and archival materials, creating digital archival finding aids, and maintaining a digital preservation archive. He concludes that there is a need for more education on how to foster metadata interoperability in the emerging digital environment. An appendix reproduces the survey questions.


The author surveyed directors of academic law libraries to determine how the increasing availability of electronic legal resources had affected their management of duplicative print collections. She describes her methodology, examines results, and concludes that rising costs and increasing availability of and reliance on electronic materials have strained the budgets of academic law libraries, resulting in cancellation of print materials. She also suggests areas for further research. An appendix reproduces the survey questions.


In 2007, the Biddle Law Library at the University of Pennsylvania implemented a departmental blog-writing program. This article describes the history of the Biddleblog, discusses lessons learned in managing it, and summarizes the results of a survey of peer institutions that was conducted to increase understanding of the nature of law library blogging programs. It concludes with suggested strategies for law libraries considering starting or overhauling their own blogs.


Talley discusses current uses of agent technology and suggests future applications of more sophisticated AI in academic law libraries. Examples include streamlining circulation and reference services, employing customizable virtual chatbot assistants, and using intelligent agent technology to personalize information literacy instruction. She also explores the advantages and disadvantages of intelligent agents and AI and examines the effect of ABA standards on the use of these technologies.

This article examines aspects of law library preservation addressed in the Law Library Journal since its inaugural issue in 1908. The author observes that the common denominator between preserving paper, binding, and books throughout the past century and dealing with born-digital documents today is the desire to maintain existing resources for future users.


This article considers two decisions affecting IT operation costs at academic law libraries: (1) whether to use a proprietary or open source integrated library system (ILS), and (2) whether to trade in-house IT infrastructure and personnel for full-service cloud hosting. Wale identifies factors to consider when contemplating a move to an open source ILS and/or cloud hosting. While the decision may ultimately rest on institutional priorities, she recommends that librarians stay informed about innovations in library automation and storage.


This article analyzes the survey results for law school technology staffing in 2002, 2006, and 2010. The survey suggests a trend away from technology management by the library director and toward establishing separate IT departments within law schools. Nevertheless, the authors conclude that librarians are and will continue to be actively involved in law school technology, particularly in the areas of instruction and scholarship.


Wheeler contemplates future law libraries with holographs, embedded chips, smart machines, and robotic personal assistants. The challenge for law libraries and librarians will be the need for a radically changed mindset toward the teaching of legal research and the nature of law library collections.

Law Students


This article addresses assistive technologies available to support learners with visual, hearing, cognitive, physical, communicative, and other impairments. The authors discuss methods for integrating technology into law teaching to enhance accessibility and inclusion. They also recommend reasonable adjustments for a variety of user needs and identify seven questions legal educators should ask to determine their approach to inclusion and accessibility.


Becker explores the challenges and opportunities that Net Gens, born in the mid-1990s, face in law school after growing up in a wired culture with constant access to online resources and social media. She urges faculty to try to understand why Net Gens may be unaware that their professors expect academic integrity and
inquiry and to work with these students to prepare them to meet the expectations of their elders in the practice of law.


Members of Generations X and Y have had Internet access most or all of their lives, a phenomenon that has shaped their perceptions of the learning experience. Bohl explores factors affecting these students when they enter law school, examines the classroom problems generated by these factors, and suggests ways to enhance academic performance. She concludes that successful classroom teaching depends not on the use of more technology, but rather on the ability to capitalize on characteristics of Gen X and Y students.


Cameron conducted a study designed to determine whether law students develop shortcuts to make their reading processes more efficient for their purposes. Using eye-tracking technology to study the reading patterns of law students in various points of their law school career, the study revealed speed differences between the novice and experienced readers but no statistical difference in basic comprehension. This study suggests that the brain learns how to speed up reading over information in a case that is nonessential to the student’s basic understanding of the case, but does not employ these strategies when the information is critical to the basic understanding of the case. The author suggests that further research could reveal assessment methods to assist law students with improving their reading skills.


Neuroscience teaches that the brain’s neural circuitry physically changes in response to our experiences. Dalton discusses the implications for Millennials, whose brains are being physically altered by their experiences with digital technologies. These changes affect their abilities to comprehend, concentrate, remember, and think deeply, which in turn sends them right back to the Internet. Dalton suggests that legal educators can offset these changes by teaching reading comprehension skills and assigning nontechnological time.


As online education increases, law schools must ensure accessibility to students with visual, hearing, or mobility impairments. This article provides guidance on the work needed to ensure this accessibility. It discusses different disabilities, reviews relevant state and federal laws and standards, and explores the relationship between accessibility and the principles of universal design. The article also introduces several best practices for creating accessibility in online instruction.


This article describes the learning styles of digital natives who enter law school with weaker reading and reasoning skills than prior generations. The author
argues that cognitive learning theory can help faculty teach students how to learn and to convert information to knowledge. To this end, she recommends applying cognitive learning theory to course design and planning and increasing the use of visual aids, visual exercises, and assessments.


A law student addresses the myriad ways in which Facebook use affects law students in Florida. She focuses on the potentially damaging effects of questionable photos, posts, and status updates on a law student’s admission to the Florida Bar and future employment opportunities. She also discusses the risks of disciplinary action and possible termination of employment that Facebook presents when law students transition to practicing attorneys.


Attention plays a critical role in learning, particularly as it affects the complex cognitive tasks required for legal analysis. Jacobson explains this role, explores factors that undermine attention in class—including technological distractions and multitasking—and offers practical advice to address each influence and improve student ability to pay attention and concentrate. Additionally, she asks faculty to consider whether their teaching methods contribute to the problem by failing to engage students.


Addressing the paucity of research into the challenges specific to DL, this paper reports on and analyzes preliminary data gathered from an empirical study of the mental well-being of online DL law students. The study was conducted at the Open University Law School with students in the final stage of their LL.B. degrees. Results demonstrated that a substantial minority of students had experienced mental health issues and were likely to need professional help. After discussing their methodology and the strengths and weaknesses of the study, the authors make suggestions for future studies.

Leysen, Sherry L. “Brain Plasticity and the Impact of the Electronic Environment in Law and Learning.” *Legal Reference Services Quarterly* 30, no. 4 (2011): 255–88. Leysen considers whether dependence on technology has caused the brain to rewire itself, degrading students’ ability to think critically, read deeply, concentrate, communicate, and feel empathy. The author queries whether the skimming, scanning, and screen reading endemic to the Internet will eventually put professional legal standards at risk. Finally, she highlights implications for legal educators and recommends minimizing interruptions and distractions and developing or maintaining a foundation of deep-reading ability. She concludes with suggestions for future research.

Meyer, Patrick. “The Google Effect, Multitasking, and Lost Linearity: What We Should Do.” *Ohio Northern University Law Review* 42, no. 3 (2016): 705–45. Meyer explores the negative cognitive effects of online legal learning, influenced by multitasking, information overload, and the physical limitations of screen reading. To alleviate these effects, he makes recommendations for teaching lin-
earity, structure, research, reading, and learning law online. At the same time, he cautions us to show students how to access the traditional structural cues that are critical to novice legal learners, including learning about new topics in print format.


The author posits that novice law students who are anxious about new technologies may not be motivated to use these resources appropriately. She suggests putting students at ease by explaining how to use the online environment, posting welcoming messages, and encouraging them to use the online forum to introduce themselves to classmates. She also recommends varying audio, video, and visual format resources, clarifying the goals behind designated tasks, encouraging interaction and collaboration between students, and providing feedback.


The relationship between the Digital Generation and technology is the subject of this article, which explores the neuroscience of attention and explains the crucial importance of attention for legal professionals. Part 6A addresses the changes that the Digital Generation and new technology will bring to legal education, including in-class laptop use, a greater emphasis on electronic communication in LRW courses, and a shift from the case method to technology-based teaching methods.


O’Leary reports on the first qualitative research study of law students with attention deficit hyperactivity disorder (ADHD) in online learning environments. She summarizes the online setting in which future law students will learn and previews the challenges for a student with ADHD in a rigorous law school milieu. After discussing the obligation of law schools to accommodate cognitive disabilities in digital environments, she offers institutional and instructional recommendations to support students with ADHD in online learning.


This article addresses legal education’s failure to prepare a digital generation of law students for the psychological toll of law practice, where the progression of technology has dissolved the walls between office and home. Proposing that law schools use an educational model adapted from social work to enable Millennials to manage these stresses, the author suggests ways in which a curriculum can employ best practices and preventive tools to prepare them to thrive in law practice.


Sonsteng argues that students need assistance in selecting the law school to attend and the courses to take. To this end, he developed an objective evaluation method that assigns points to courses based on eight criteria relevant to the teaching and learning tools used in classes. To demonstrate his method, he compares the use of
these tools in a fictional law school course with limited resources and a fictional law school course that uses multiple teaching and learning tools.


According to the author, entering law students are digital natives who seek rapid results with minimal work, increasing the likelihood of plagiarism as they use the Internet to bypass the tedium of research and citation. Arguing that law faculty have a duty to teach students to adhere to the standards required of professional legal writing, he offers suggestions for teaching them to avoid plagiarism, including the use of digital sources such as BriefCheck, WestCheck, and CiteGenie.


Many digital natives fail to prepare properly for law school classes because their immersion in technology has created habits that are incompatible with the focus required for traditional law school reading. To address this problem, the authors explain how law professors can use technology such as social media and vodcasts to make the reading assignments compatible with the learning preferences of digital natives.

**Legal Scholarship**


Armstrong argues that online access to legal scholarship and other legal materials could be expanded into a full digital library if a large pool of contributors would use a crowdsourced production process. He reviews Distributed Proofreaders and Wikisource, two projects that use crowdsourcing to proofread and archive texts, and discusses the strengths and weaknesses of their methods. He recommends that new projects avoid duplicating existing open access repositories and focus instead on supplementing them in areas where they are weak.


Technology has facilitated the temptation for law professors, judges, and practicing attorneys to plagiarize because information is widely available in digital form and easily copied and pasted into another document. This article, which focuses on topics such as self-plagiarism, authorship, and the difference between plagiarism and copyright infringement, includes a discussion of plagiarism detection technology.


An associate dean for faculty development offers his perspective on the value of shorter pieces in online law review supplements, focusing on questions related to tenure, promotion, and scholarly grants and stipends. He argues that form and venue are less important than scholarly ideas and that online supplement scholarship can be counted and valued for institutional objectives.
The authors assert that law reviews transitioning to a digital-only platform will benefit from organizational and environmental sustainability, cost savings, and new technologies. They also outline certain steps that law reviews should consider before doing so, including collaborating with administrators, faculty, and subscribers; adjusting publication timelines; notifying prospective and committed authors; discussing the legal community’s viewpoint; reducing or eliminating subscription fees; and developing a user-friendly website.

This article addresses the problem of vanishing Internet resources cited by law professors in their legal scholarship. After examining the roots and purpose of scholarship in academia, Broussard discusses the increase in technology and its impact on the academy. She also proposes guidelines for ensuring research integrity and scholarly credibility when using Internet resources excluded by stable databases.

As he charts the emergence of law faculty blogs as a legitimate source of legal commentary and analysis, Brown explores their disruptive influence on legal scholarship, faculty reputation, and law school rankings. He also discusses their citation in judicial opinions and scholarly articles and their ability to publish shorter, more current pieces quickly; to enhance the reputation of faculty members engaging in sustained academic blogging; and to increase law school name recognition and rankings.

This article seeks to promote discussion about the effectiveness of social media to communicate legal scholarship to diverse audiences. The authors discuss their own experiences using social and digital media tools for the scholarly engagement of public law academics, their students, the profession, and the public in a collaborative global community.

Charlow outlines the benefits of and problems with online journals. The author accedes to the inevitability of online publication, stating that the real question is whether law reviews should jump on the bandwagon now or wait until others have resolved the difficulties in the process.

This essay chronicles the creation of the *Tribal Law Journal*, the University of New Mexico School of Law’s open access electronic law journal devoted to law developed by specific indigenous nations and peoples. It addresses the challenges of using an electronic format to publish scholarship about an oral legal tradition and its emerging written product “in an academic and technological setting that contradicts and opposes the enterprise” (p.631).

Danner reflects on the history of the American legal treatise in light of the criticisms of academic legal scholarship published by Judge Harry Edwards in 1992. Part 3 of his article addresses the implications for the treatise of the shift from print to electronic formats. He concludes that there is a continuing need for treatises written by technologically literate legal scholars who can provide interpretive frameworks within the context of the new digital legal information environment.


Danner argues that open access to legal scholarship will facilitate cross-border dialogue and encourage international discourse in law. He also explores strategies, such as Duke Law School’s open access initiatives, for making scholarship widely accessible. Finally, he provides examples of institutional and disciplinary repositories for legal scholarship and addresses the potential impact of certain initiatives, such as the Durham Statement on Open Access to Legal Scholarship, on traditional print law journals.


See *supra* p. 410.


A survey of law professors who had recently published articles in leading law reviews revealed that 32 percent of respondents favored print over digital-only publications. Querying why law schools—faced with library budget cuts and staff reductions—continue to subsidize print publication of journals that are available electronically, the authors conclude that editors are concerned about the negative impact of electronic-only publication on a journal’s reputation, readership, and ability to attract authors.


See *supra* p. 410.


In this book chapter, the author provides an overview of the new digital environment for legal scholarship and proposes that law students be taught to understand this publication environment and to use search engines intelligently. He also describes the skills and topics covered in clinical offerings at Columbia Law School that incorporate lawyering in the digital age.


The authors report on their study of the impact of open access on legal scholarship. Examining an 18-year range of articles from three print-only journals at the University of Georgia School of Law, they conducted Google searches of
article titles to determine which articles had become freely available online. After comparing the citation rates for those articles and the citation rates for print-only articles, they concluded that open access legal scholarship received 58 percent more citations than similarly situated closed access articles.


The authors report on their empirical study of the citation advantage of open access legal scholarship. This study revealed that open access legal scholarship is 53 percent more likely to be cited in flagship journals and 41.4 percent more likely to be cited in court decisions than non–open access articles. They consider the benefits of, and rationales for, unrestricted access to law review articles, observing that it offers the opportunity for U.S. academics to provide guidance and influence for the global market and to contribute to policy development around the world.


In this article recommending comprehensive changes to the law review submission and editing process, Friedman addresses challenges presented by the electronic environment. These include skyrocketing submissions through services such as ExpressO and Scholastica, editing excesses inspired by change-tracking and redlining software, competition from online self-publication, and crowdsourced peer review. In Part 4, he offers concrete suggestions for change, which he maintains will improve published scholarship and at a lower cost.


Gallacher argues that the digital publishing environment has limited access to the law because there are few viable challengers to costly commercial databases and open access alternatives lack adequate indexing mechanisms. He proposes using social networking theory to map both the relationships between cases and the evolution of legal doctrine, thus allowing researchers to develop an index of the law related to each case while permitting open access sites to offer indexed research strategies.


The authors argue that the traditional institutional approach to commercial publication of academic research inhibits the ability of law professors to share their work beyond their professional academy. They suggest that social media platforms, such as scholarly blogs, can form part of a strategy for constructive engagement in the writing and publication process. To this end, they recommend that universities recognize publication in social media as a legitimate scholarly pursuit for law professors.


This article is an annotated bibliography of articles, commentaries, conference papers, essays, books, and book chapters that examine the impact of technology on legal education. The article covers legal scholarship in the United States and other English-language countries between 2001 and 2008.

See supra p. 400.


The author calls for law reviews to reintroduce the recent developments note into their writing requirements. She points out that blogs are often poor substitutes for the careful scholarly analysis of a single case that a recent developments note would provide. To compete with the timeliness of blogs and to improve student scholarship, she suggests that these notes be published on law review websites to offer quick, open access to current scholarship.


Hart’s study of journal selection standards employed by the four primary American legal research indexes revealed that they exclude 46 open access law journals and foreign titles. Without corrective measures, researchers will be unable to access the enormous volume of legal information offered through open access. Hart recommends analyzing open access legal journals in foreign and other indexes, bringing them to the attention of index selection committees, and urging committees to seek broad inclusion of open access legal journals.


In this essay, the associate dean for faculty development and research at Case Western Reserve University School of Law explores the Internet’s role in creating new opportunities for research, new outlets for scholarly work, and new vehicles for sharing this scholarship. Observing that the job of the associate dean for research is to increase the law school’s visibility, she describes how the Internet can be used to promote faculty scholarship and acknowledges that blogging can inspire intellectual exchanges and name recognition for bloggers.


Keele argues that academic legal scholarship should move past the print publishing model by publishing in HTML and EPUB formats, enriched by images, video, and other media, and by adopting persistent identifiers for scholarly works. He explores the advantages and challenges for law reviews wishing to publish in these formats. He also suggests that law librarians could provide valuable assistance in overcoming these challenges and making academic legal scholarship more accessible and flexible.


See supra p. 411.


This student paper argues that law reviews can coexist peacefully with legal blogs because they operate in different environments. After discussing the advantages and disadvantages of law reviews and blogs, the author concludes that scholars have unfairly criticized blogs. He maintains that the legal academy can benefit from the Internet’s ability to disseminate novel legal ideas more rapidly and pervasively, and he urges writers to use all tools at their disposal.

Kochan describes ways to combat the risks of quality dilution that student-edited journals face as they move to multiple platforms and new technologies. Instead of posting response pieces simultaneously with main articles, he suggests that journals use virtual workshops and virtual roundtables to help authors improve their work before publication. Such virtual liquid networks, he asserts, would improve legal scholarship and provide student-edited journals with an expanded, service-oriented role.


Koulikov examines the coverage that law review articles receive in general academic article indexing, abstracting, and full-text databases, concluding that they are covered meaningfully although inconsistently in nonlegal databases. He discusses the implications of his findings for nonlegal scholars’ levels of engagement with academic legal literature and for meaningful interaction with legal scholars. He closes with suggestions for further research.


This article responds to *The Durham Statement Two Years Later,* which called for an end to print publication of law journals. Leary criticizes its failure to consider the national and international actors and developments that will determine the future of digital libraries. She also argues that law libraries should preserve paper copies with digital copies, citing factors such as sabotage, aging infrastructures, political instability, censorship, interference with Internet communication, and natural disasters that prevent distribution of digital information.


Meredith evaluates the key features of three referencing software programs, considering feedback from a survey of legal scholars in the Oxford University law faculty and her own experience supporting scholars who use these programs. Respondents found Refworks to be clumsy, Endnotes to be time-consuming, and Zotero to be more user-friendly than the others. She concludes that users must invest time and resolve to learning how to use referencing software programs.


Merrill discusses the probable effect of the digital revolution on student-edited law reviews in the coming years. He predicts that simple economics, including cancellation of print subscriptions, will cause law reviews to migrate to online-only publication. He also discusses the effect of digital services, such as ExpressO, on the article selection process. Finally, he addresses predictions that open access publication will hasten the death of law reviews, opining that SSRN cannot replace the benefits that law reviews offer students and authors.

35. See supra p. 410.

This piece introduces *Touro Law Review’s* symposium issue, titled “Student-Edited Law Reviews: Future Publication Platforms.” The author traces the history of the debate over print vs. online publication and predicts that hardcopy bound versions will become obsolete while the need for student-run journals will remain.


To explore the impact of electronic publishing technologies on legal scholarship, the author employs a sociotechnical systems view, which considers the complex interactions between technology and disciplinary cultures. She argues that this framework explains why law reviews have survived the open access movement and why new technologies have resulted in a parallel system of open access repositories and forums.


Ramsay identifies and evaluates the comparative merits and limitations of publication in law journals and on SSRN, concluding that each offers advantages for authors. He notes that publication on SSRN offers particular advantages for authors in smaller countries, where journals lack a strong international readership.


This article, which explores the role of open access in academic legal scholarship, focuses on the diverse stakeholder interests. The author discusses the economic and social implications of open access, as well as concerns that university copyright interests hinder both author creativity and the public’s interest in open access to scholarly works. Finally, he recommends model open access policies that would address the varied interests of scholars, institutions, publishers, and the public.


The author argues that continuing technological change—including hyperlinked sources in briefs, citation software, and public domain citation—is rendering traditional citation manuals obsolete. She encourages legal educators and practitioners to adopt a citation approach that embraces the opportunities technology offers and recommends concrete steps that would create a balanced, cost-effective citation system.


Arguing that budgetary cuts at law schools will necessitate changes in the publication formats of law reviews, Schaffzin examines the feasibility of online media as potential platforms for these publications. She recommends an online-only, open access format for secondary journals and flagship law reviews with lower readership and less funding.

Setty outlines criticisms of student-edited law reviews, including their inability to match the speed and low cost of platforms such as SSRN and reader preference for shorter works on respected blogs. Nevertheless, she argues for their retention because they are part of a law school's core educational mission, serve a critical filtering role in an information-saturated world, and play a vital role in disseminating outsider scholarship.


The author argues that law review writing should be more accessible and relevant to a broader audience outside the legal academy. To this end, he advocates embedding into law journals both links to content summaries written for the layperson and Quick Response codes that take readers to related secondary sources. He concludes that public accessibility would make legal scholarship more educationally useful and would pay a dividend to scholars through increased citation of their works.


This article advises scholars how to evaluate and revise law journal publication agreements so they can protect their property in an era of open access scholarship and digital archiving. The author also explains how future technologies will alter the capture, representation, retrieval, and delivery of scholarly writings, and the implications of such trends for publication agreements. Appendices include an annotated model publication agreement and an electronic publishing glossary.


This bilingual editor's note introduces the *McGill Journal of Law and Health*, a peer-reviewed academic law journal available online free of charge, and discusses its place in the open access movement.

**Marketing**


Updating and expanding their earlier study of law schools in England and Wales, the authors address new requirements mandating standard website formats to facilitate direct comparison between law schools. They note that the resulting collection of quantitative information lacks details and context and often omits information such as faculty research interests and demographic data of the student body. They conclude that the standardized website model may not communicate a law school's unique and diverse approaches to legal education.

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36. See infra p. 426.

The authors analyzed the conflict between the factual and marketing purposes of the websites of 45 law schools in England and Wales to determine its effect on prospective applicants. They note that factual material often lacks context and is difficult to navigate, while marketing material may create false expectations and subsequent dissatisfaction. Moreover, the unique formats and features of these websites hinder effective comparison. Nevertheless, the authors conclude that pressures to standardize websites would hinder law school efforts to communicate their own distinctive identities.


“Scam Bloggers” are a populist online community of unemployed and underemployed attorneys who see legal education as a dishonest industry. Their movement calls for reform of the way that law schools market themselves to potential law students. Jewel contends that, despite the frequent vulgar comments violating norms of professional discourse, these blogs contribute valuable thoughts about problems facing the profession. She concludes that we should relax our professional norms, allow these arguments to take shape, and listen to them.

**Mobile Technology**


The iLEGALL project was created to explore the use of mobile devices in law courses in England and Scotland. The authors discuss the advantages and challenges of mobile technology and the use of iPads for teaching, learning, teamwork, and assessment. They report positive feedback, concluding that the devices contributed to development of professionalism, collaboration, and active and interactive learning. They call for increased research in mobile legal learning.


Since 2013, Western Sydney University (previously UWS) has been providing all first-year law students with iPads, which Blissenden employs to introduce storytelling pedagogy. He explains how students use free apps, such as Explain Everything, to investigate the backgrounds of reported cases and then present their findings to classmates using Bamboo Paper and/or iMovie on the school’s intranet. He concludes that this project encouraged active class participation while exposing students to the human and practical aspects of litigation.


The author examines the delivery of legal education at UWS, where all first-year law students receive an iPad for studies in a blended learning environment. However, his interviews with students showed that they used the iPad for learning and
social networking but not for collaborative learning. Blissenden concludes that law teachers need to build appropriate activities to ensure enhanced collaboration.


Boyle discusses the resistance of legal educators to mobile classroom technologies, with some banning laptop use altogether because inappropriate distractions prevent student engagement in classroom learning. Citing research showing that laptops benefit auditory, tactual, and visual learners, she argues that classroom laptop use should be permitted, subject to controls that maximize benefits and minimize distractions. She also suggests ways to curb those distractions and facilitate effective use of laptops.


Colker refutes the literature cited to support laptop bans and argues that these bans present unnecessary obstacles to academic performance. Her empirical study showed that laptop users in her constitutional law class earned comparable grades to voluntary nonusers. Because students learn best in different ways, she recommends that law professors trust them to decide for themselves whether to use laptops, as long as professors clearly prohibit using the Internet for non-class purposes. She concludes that a permissive laptop policy should be on the list of Universal Design features that supports effective learning for all students.


The author implemented a two-year laptop ban in his property course, based on his perception that laptops decreased student participation and exacerbated the challenges Millennials face when adjusting to law school. After reviewing research suggesting that classroom laptop use impairs higher-order learning, DeGroff reports that his policy was well accepted, partly because he posted outlines online before each class. He recommends that professors of first-year courses consider adopting a laptop ban that is clearly explained and reasonably implemented.


See supra p. 378.


The authors criticize the fixed-location approach to legal education, which results in minimal formative feedback about student performance. They argue that a more portable learning environment would better meet the demands of legal education and law practice, both inside and outside the classroom, with web-based learning, podcasts, blogs, and interactive, wiki-based outlining. Because today’s law students learn in a world of electronic data, the authors conclude that resisting 21st century demands ultimately will prove counterproductive.

Based on a study revealing that undergraduate laptop users transcribe their professors’ words without regard to meaning, causing comprehension and retention to suffer, Eisenstat calls for a reevaluation of policies permitting unlimited laptop access throughout every class. He discusses the results of his own ban, indicating that student support markedly increased over the semester. After explaining why monitoring classroom laptop use is unproductive, he concludes that laptops should be banned except when required for a specific educational purpose.


This article examines the decline of civility demonstrated by the use of digital devices in both college and law school classrooms. The author considers the impact this decline has had on students’ classroom behavior and the effect of mobile technology on learning. She offers suggestions for addressing this lack of civility and improving the classroom learning environment.


Recounting her visit to Litchfield Law School, America’s first law school, Harmon rails against the use of laptops in the law school classroom. She describes the leather-bound books handwritten by 18th and early 19th century law students. As she explains the process by which the act of writing by hand engages both mind and body, Harmon decries the laptop dictation approach to note taking that, she argues, discourages participation, sacrifices reflective cognition, and creates the illusion of understanding.


McCreary reports the results of her survey of 449 second-year law students regarding their views of laptops and the distractions they reportedly cause. The survey revealed that many students use laptops for appropriate learning purposes, while distractions were overwhelmingly more likely to affect nonusers. For these reasons, McCreary suggests that law professors ban laptops from sections of the classroom rather than the whole classroom, which she believes would be detrimental to students’ learning.


The University of London conducted an e-reader pilot that delivered DL materials to LL.B. students in the United Kingdom, Germany, Kenya, and Singapore. This article presents results relating to device usability, user behavior, the educational affordances of e-pub formats, and the impact on learning and teaching. Despite the difficulties of developing usable reading formats, overcoming cultural challenges, and dealing with copyright issues, the article highlights the successful partnership of e-publishers and e-reader manufacturers.

The authors report on a study evaluating the relationship between note taking, laptop use, and academic performance in constitutional law and evidence courses. They review prior studies in the higher education setting, explain their methodologies, and describe outcomes. After controlling for LSAT scores, the authors found that second-year law students who handwrote their notes had a higher combined GPA for these required courses than laptop users. They conclude that this study meaningfully contributes to the ongoing discussion about whether classroom laptop use might impede performance on essay exams requiring conceptual applications.


Murray argues that laptop bans in law school classes are based on untested assumptions about laptop use. Her article challenges these assumptions and recommends ways to encourage productive laptop use. Suggestions include educating students about their learning and note-taking preferences, clarifying classroom policies, designating a laptop zone, offering incentives for participation, asking students to disengage from laptops at critical times, and addressing the effect of laptop distractions on law practice.


Rothman responds to A Technological Trifecta: Using Videos, Playlists, and Facebook in Law School Classes to Reach Today’s Students,37 advancing two reasons for his conclusion that digital classrooms have discouraged student engagement. First, they encourage students to transcribe faculty comments verbatim without actively listening to context or meaning. Second, they allow students to distract themselves and classmates with online activity unrelated to class content. He reports positive responses from his students to his laptop ban.


This study of laptop use by law students during 60 sessions of six courses revealed that 58 percent of upper-year students were distracted for more than half the class session, while the average level of distraction was 14 percent in first-year courses. The author attributes the differences to the importance of grades to first-year students and the increased boredom of upper-year students. He also discusses the pros and cons of classroom laptop bans and calls on others to conduct similar studies.


Volokh argues that the advent of e-readers, such as the Kindle 2 and the Sony eBook, increases the likelihood that legal texts will be published and read electronically. Specifically, he addresses the advantages of e-readers for law students, including portability, accessibility, malleability, usability, and cost. He also discusses the future of the law book market and the improvements manufacturers and publishers must undertake to make e-readers effective for a legal audience.

37. See supra p. 397.
Pedagogy


The author of this book chapter proposes a virtual lawyer curriculum supplemented by the New Chicago School style of jurisprudence, the study of persuasive computing known as captology, and science fiction criticism as useful devices for furthering critical assessments. He also argues that the digital curriculum must include the ethical, professional, and societal implications of the use of technology.


Blissenden addresses the pedagogical benefits of having students use technology to “reverse-engineer” the appellate reports excerpted in their casebooks to discover their underlying stories. Using an example from a case he teaches, he explains how students investigate cases online, distill the case histories, and then employ multimedia sources to retell the stories and discuss the legal issues raised. He closes by discussing the benefits of using this active learning experience within a digital environment.


This article outlines approaches to help law students develop technology competencies for career success. These approaches are based on the author’s experiences addressing similar challenges at an undergraduate college of engineering. Chachra concludes that although the specific needs of the professions differ, engineering and law graduates will benefit from education that allows them to collaborate, to use technology effectively, and to think about the larger societal context of their work.


After discussing the progress of conventional teaching methodologies since Langdell’s revolution in 1870, the author explores the digital technologies that are propelling a second revolution in legal education. These include computer learning games, virtual worlds, electronic simulations, flipped classrooms, and MOOCs. The article also reports the results of her survey of AALS members about their pedagogies and teaching tools. An appendix reproduces the survey and results.


This book chapter chronicles the role of technology in reshaping the practice of law and addresses the corresponding challenges for legal education. After outlining a day in the life of a technologically sophisticated lawyer, the author calls for integration of technology into the law school curriculum. Examples discussed include technology-based legal issues in doctrinal courses, digital drafting and email communications exercises, hands-on technical literacy labs, and online instruction.

This article introduces disruptive innovations in legal technology that are changing law practice and analyzes their implications for legal education. The authors argue that law schools must prepare their students for these changes by teaching the technology of blockchain contracts, AI, and machine learning. Law students should also learn basic coding related to platforms for smart contracts and the skills for working in interdisciplinary teams with software engineers. These goals require experimentation and a more creative law school curriculum.


Arguing that Australian legal education fails to prepare graduates to engage in an increasingly technology-driven legal profession, Galloway advocates an immersion approach to digital literacies across the curriculum. The broad framework she proposes would require legal academics to understand the effect of digital technologies on the law, law practice, and the structure of legal education, and to use scaffolded, digitally mediated engagement in concepts, information tools, and self-reflection. Because she concludes that this is the only way to equip graduates to engage effectively with society’s needs, she calls for further research and investigation by legal education scholars.


Garon traces the technological revolution that has produced interactive software, predictive drafting, socially mediated self-help portals, and virtual law firms, all of which have profound implications for law practice and legal education. He outlines a curricular plan that would prepare students to practice law in the new marketplace by increasing their exposure to live client experiences, logic and communication skills, the technology and business of lawyering, and the skills necessary for corporate and global law practice. Finally, he recommends accomplishing these goals in a setting that values competencies more than classroom time and offers students access to courses and law faculty around the globe.


This book chapter offers a practitioner’s perspective as to what should be in a digital lawyering curriculum. The author lists basic technology topics that should be included in this curriculum, including social media, e-lawyering, metadata, and cloud-based practice management applications. Each topic includes an illustration and resources for further reading.


The author queries whether law professors are ethically bound to use active learning technologies, given evidence that they improve exam performance and reduce gender and socioeconomic learning gaps. She observes that, with the advent of MOOCs and wearable interactive learning technologies, the ethical question of pedagogical competence grows in importance and those who fail to respond to innovative technology will find themselves increasingly overwhelmed.

Lane's literature review reveals that legal education has used technology ineffectively, without assisting deep, analytical, reflective, and critical learning. As primary obstacles to progress, she identifies university administrators who favor less expensive traditional teaching, instructors stuck in traditional lecture mode, and students who eschew active learning. She offers recommendations for providing students with opportunities to analyze problems, including flipped classrooms and interactive assessment methods.


The author argues that the prevalence of technology in the lives of law students requires that professors embrace technology to improve the learning experience and make it similar to what graduates will encounter in practice. To this end, she offers concrete suggestions for fitting technology into Bloom's Taxonomy to support and promote the expected knowledge or skills the student should gain at each level of the taxonomy.


Lee argues that law schools should explicitly connect mindfulness training with legal technology learning. This approach would prepare students to face the challenges of law practice technology, including distraction and multitasking, and reinforce the connection between mindfulness practice and responsible, productive use of legal technologies. She closes with suggestions for how law schools might make that connection.


This essay defends humanistic legal education in an era of increasingly automated legal services. Examining the effect of new technologies on the lawyer's evolving role and the corresponding challenges facing legal education, Lee argues that law schools must teach both technologically relevant skills and the moral judgment that cannot be automated.


Based on his analysis of learning science and empirical research, Levy argues that digital law students process information in much the same way that their cave-man ancestors did. Refuting the assumption that they should be taught primarily with technology, he asks us to consider whether and how technology will advance our learning objectives and recommends combining technology with established teaching practices as part of a hybrid approach to classroom instruction.


Disintermediation refers to the process by which the elimination or reduction of an intermediary gives users direct access to a service. In this article, Maharg demonstrates how the presence of disintermediation in legal education—caused
by digital technologies—poses serious issues for legal curricula and the processes of teaching and learning. He examines the effects of disintermediation in open access learning and legal research skills and considers both the challenges and the opportunities each presents to legal educators.

Murray, Andrew Douglas. “The Value of Analogue Educational Tools in a Digital Educational Environment.” European Journal of Law and Technology 6, no. 1 (2015), http://ejlt.org/article/view/388/550 [https://perma.cc/AC9N-BNQR]. Murray addresses institutional decisions to use preselected platforms throughout the university without considering how to supplement classroom education with these platforms. He discusses his experiment in a cyberlaw class, in which he used an analog platform to introduce students to conventional textbooks. Concluding that students gained a deeper understanding of regulatory texts, he argues that instructional design must be driven by pedagogy and andragogy, rather than by the institutional availability of technology platforms.


Shackel, Rita. “Beyond the Whiteboard: e-Learning in the Law Curriculum.” QUT Law and Justice Journal 12, no. 1 (2012): 105–32. This article reports on an e-learning program, Electronic Case Analysis Tool, used to teach case analysis skills at Sydney Law School. Shackel discusses pedagogical issues raised by the use of e-learning strategies and argues that e-learning resources should be developed to support active, engaged, and reflective experiences for law students. After examining the program's educational goals and design, she concludes that it promotes flexible, independent, and self-directed learning in core legal skills and can be adapted to teach legal skills to students with diverse learning needs.

Yates, Mark. “Text Is Still a Noun: Preserving Linear Text-Based Literacy in an E-Literate World.” Legal Writing: The Journal of the Legal Writing Institute 18 (2012): 119–52. Yates argues that legal educators must balance the use of technology against the importance of preserving the linear, text-based literacy skills needed in law practice. He examines literature arguing that IT interferes with the way students think and process information. Yates concludes by identifying areas in which technology serves important pedagogical purposes and areas in which a traditional approach is more effective.
The Impact of Technology on the Future of Legal Education


This essay considers the impact of digital technologies on legal education in the 21st century, including the demise of traditional casebooks and the rebirth of customized electronic coursework. Because law schools have already integrated many mainstream digital solutions, Binford argues that obsolete constructs of traditional legal education must yield to a new age of leadership and vision that will protect the development of digital education resources from commercial interests.


In this short piece, Boudreaux queries whether current economic and technological trends may lead to the elimination of tenure for law professors. He depicts a future in which international corporate conglomerates replace law schools and computer-generated coordinators replace law professors by guiding students through their law studies on a wall-sized screen at home.


Because e-lawyering has expanded an otherwise shrinking job market, Goodenough proposes that law schools adopt an e-curriculum that prepares law students for the workplace. This curriculum would offer both specialty courses that develop specific legal technology skills and across-the-curriculum inclusion of technical instruction in doctrinal courses. His analysis is rooted in three principles: value added, values added, and economic sustainability.


In this discussion of technology’s vital role in implementing teaching reforms, Johnson offers examples of how technology can address the learning needs of law students, including the use of effective formative assessments, classroom instructional methods, and simulations. He also discusses the next generations of casebooks, suggesting that they might include video vignettes, CALI exercises, computerized tutorials, quizzes, and role-playing games. Finally, the author explores the manner in which law schools might use technology to instruct law students in technology skills.


Katz argues that the digital age requires law school curricula to adapt to new employment sectors that increasingly use legal information engineering, legal analytics, and legal software. To this end, he describes a hypothetical MIT School of Law, a cross-disciplinary institution that would integrate science, technology, engineering, and math into the law school curriculum.

Matasar considers whether certain issues that plague legal education, such as student debt and decreasing demand, could signal a broader crisis in universities. He argues that law schools must consider additional sources of revenue, such as using MOOCs to deliver content to learners in other fields of study. As they experiment with technology to survive the current crisis in legal education, law schools will become a model of how universities should confront contemporary challenges.


Noam argues that changes in information production and distribution are undermining the essential purpose of universities. Law schools, in particular, have been more resistant to online education than most other professional schools. This article explores both the strengths of traditional law schools and the declining likelihood that they will survive electronic encroachment intact. It also investigates transitional options, such as a mix of click and brick.


The authors argue that the technology revolution in higher education requires quick and effective responses from traditional law schools. Failure to respond could send law schools to the same fate that Borders Books experienced with the dominance of Amazon.com. To outpace their online competition, law schools must migrate content to an online platform, expand face-to-face experiential offerings in their physical buildings, reward and refine student use of new literacies, and use adaptive learning software to tailor the online learning experience to the needs of each student.


This article examines the future of legal education through the lens of a changing market in which practitioners increasingly use the Internet to provide legal advice. Emphasizing the need to enhance the employability of graduates, the authors discuss using new technologies to expose law students to diverse methods of communication and interaction. To this end, they recommend that practical simulations become an integral part of the law school curriculum. They also discuss their experiences with an online transactional simulation conducted via a VLE.


This article discusses the disruptive change that the convergence of technology and economics is bringing to legal education. The result, the author predicts, will be a range of technologies that facilitate the implementation of new teaching techniques, allowing increasingly sophisticated subjects to be delivered to students entirely online. In this way, the law school of the future will become a global platform unencumbered by time, space, and hegemony.
Miscellaneous


Although technological advances have made the law school community increasingly interested in recording class sessions, law schools have failed to keep pace with the legal and pedagogical issues inherent in developing class recording policies. The author discusses these issues and presents a framework for a cohesive policy consistent with legal norms. An appendix lists publicly available classroom taping policies of the top 30 law schools based on the 2016 *U.S. News & World Report* rankings.


Casanovas argues that web science must play a greater role in curriculum and course design in legal education if young lawyers are to operate in an evolving technological environment. He proposes combining law, science, and technology courses and framing them into research programs that reflect the crowdsourced work of students, researchers, and professors. These programs, which would reflect the interplay between Web 2.0 and 3.0, would be managed by the Semantic Web. He concludes that legal education has a significant role to play in this new web space.


This article examines the unique approaches of three labs dedicated to developing new approaches to legal education and law practice: (1) the Hofstra Law, Logic and Technology Lab, combining logic and analysis with technology to enhance efficiency and fairness in law and policy; (2) the ReInvent Law Laboratory at Michigan State College of Law, incorporating the innovations of law, technology, design, and delivery into the legal services industry; and (3) the NuLawLab at Northeastern University School of Law, employing interdisciplinary approaches, including technology, to imagine, design, test, and implement integral components of law practice.


Maharg argues that regulation of legal education should involve collaboration and dialogue between regulators and those who are regulated. In this “shared space” model, student development and learning is the priority, with technology used to achieve that goal. To this end, he discusses two legal education projects—the Law Courseware Consortium and SIMPLE—that demonstrate how shared space regulation would allow technological innovation to thrive.


The article is based on presentations made by the authors at the Transactional Law Teaching Conference, sponsored by Emory Law School. Thomson and Duncan discuss teaching drafting online, focusing on the challenges of converting a traditional drafting class to an online class. Sneddon and Chesler address the teaching of drafting ethics, using video vignettes that they produced themselves. They reproduce and discuss some of the scenarios used.

The authors call for law schools to become knowledge centers that use digital technology to accomplish traditional pedagogical goals. As a model of such a center, they introduce Hofstra Law’s Research Laboratory for Law, Logic and Technology, where participants reconceptualize forms of knowledge and develop digital tools to accomplish new tasks. Law schools using this prototype would have the opportunity to move law into the digital age, while still conducting traditional research and training law students.


Wang proposes unbundling legal education to allow students to pay only for the services they want or to buy services from different providers. In explaining how to effectuate this restructuring, the author discusses recent developments in the use of technology and DL in law schools. He concludes that unbundling would provide more individualized instruction and greater freedom of choice in courses, instructional media, schedules, and sites of learning.