THE INTERNET IS CHANGING THE FACE OF AMERICAN LAW SCHOOLS

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Introduction

Information technology, especially as deployed in the Internet's World Wide Web ("the Web"), is changing the law, the functioning of legal institutions and the roles of lawyers. The Internet's potential for changing the face of American law schools is especially profound.

Legislatures, courts, and statutory bodies all over the world are discovering how a \$3000 Internet-connected computer can be a remarkably cheap legal printing press through which new statutes, court decisions and administrative regulations can be communicated instantly to anyone in the world. Thus used, the Internet is an engine of legitimacy for new political and legal institutions because they can communicate their work and their reasoning to their own citizens and the international community.

Readily available court decisions are necessary components of any rule of law that depends upon consistent decisionmaking. A low-cost personal computer ("PC") connected to the Internet becomes a virtual library through which a judge, legislator or government official can consult the laws of other jurisdictions and international bodies such as the European Commission, the European Court of Human Rights and the World Trade Organization. Such a virtual library makes legal harmonization possible.

The Internet also affords easier participation in political and legal processes. Legislatures and administrative agencies regularly publish proposed laws and regulations on the Web and solicit comment from interested persons. Comments can be submitted by e-mail simply by clicking a link on the Web page. Internet connectivity eases the formation and maintenance of political action groups and Non-Governmental Organizations ("NGOs"). However, the Internet not only favors those seeking to change governmental policy or incumbent governments but also enables established governments to inform their constituencies of policies and the underlying rationales. When disputes arise, the Internet facilitates adjudication by making it easier to find court dockets, exchange litigants' materials and file papers with judicial officers.

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^{1.} See, e.g., National Telecommunications and Information Administration (last modified June 1, 1999) http://www.ntia.doc.gov (soliciting comments on several telecommunication policies); Federal Communications Commission (visited July 13, 1999) http://www.fcc.gov (instructions on how to submit electronic comments).

^{2.} See generally Henry H. Perritt, Jr., Cyberspace and State Sovereignty, 3 J. Int'l Legal Stud. 155 (1997); Henry H. Perritt, Jr., The Internet and the Sovereign State: The Role and Impact of Cyberspace on National and Global Governance, 5 Ind. J. Glob. Leg. Stud. 423 (1998).

^{3.} See, e.g., The Center for Information Law and Policy (visited July 13, 1999)

The Internet is not only an instrument of legal procedure and political action; it is also a means of commerce. Like other means of commerce, e-commerce gives rise to disputes which must be adjudicated. Internet contracts, like any other contracts, sometimes lead to disappointed expectations and to breach-of-contract lawsuits. Statements made through Internet e-mail, offers made to consumers on Web sites, private data collected through electronic orders, pictures allegedly infringing copyright, and symbols allegedly infringing trademarks all give rise to tort and statutory disputes. Sometimes these disputes arising in Cyberspace give rise to suggestions that new legal principles should be applied to resolve them because of the Internet's unique characteristics. Such Cyberlaw proposals must be evaluated against claims that the Internet is a different medium for commercial transactions.

As commerce moves to the Web and the Internet, so do criminals. Fraud, forgery, extortion, and theft of property already are serious threats. To combat this intrusion effectively, law enforcement personnel, and the lawyers who advise and direct them, must be able to understand the details of crimes committed in Cyberspace.

For the potential of electronic legal publishing, virtual legal libraries and electronic democracy to be realized, lawyers performing judicial, parliamentary, and administrative functions must understand the Internet's potential and be knowledgeable about its use by other legal institutions around the world.

For practicing lawyers who advise or represent clients and for judges hearing Cyberspace disputes or criminal prosecutions, some knowledge of the new medium and of the legal issues it produces is necessary for professional effectiveness. One could go seriously astray in analyzing a judicial jurisdiction

http://www.cilp.org">.

- 4. See Henry H. Perritt, Jr., Video Depositions, Transcripts and Trials, 43 EMORY L.J. 1071 (1994).
- 5. See Janine S. Hiller & Don Lloyd Cook, From Clipper Ships to Clipper Chips: The Evolution of Payment Systems for Electronic Commerce, 17 J.L. & Com. 53 (1997); Kerry Lynn Macintosh, How to Encourage Global Electronic Commerce: The Case for Private Currencies on the Internet, 11 HARV. J.L. & TECH. 733 (1998); Henry H. Perritt, Jr., Legal and Technological Infrastructures for Electronic Payment Systems, 22 RUTGERS COMPUTER & TECH. L.J. 1 (1996).
- 6. See generally HENRY H. PERRITT, Jr., LAW AND THE INFORMATION SUPERHIGHWAY (1996) (analyzing contract, tort, intellectual property, jurisdictional and various regulatory issues raised by the Internet).
- 7. See Maureen A. O'Rourke, Fencing Cyberspace: Drawing Borders in a Virtual World, 82 MINN. L. REV. 609 (1998) (considering appropriate legal treatment of linking and framing); Henry H. Perritt, Jr., Property and Innovation in the Global Information Infrastructure, 1996 U. CHI. LEGAL F. 261 (1996); Dan Thu Thi Phan, Note, Will Fair Use Function on the Internet?, 98 COLUM. L. REV. 169, 173 (1998) (explaining why current or expanded fair-use concept is important for the Internet).
- 8. See Henry H. Perritt, Jr., Cyberspace Self-Government: Town-Hall Democracy or Rediscovered Royalism?, 12 Berkeley Tech. L.J. 413 (1997); Josh A. Goldfoot, Note, Antitrust Implications of Internet Administration, 84 Va. L. Rev. 909 (1998).

issue, for example, if one believed that a document requested from a website is necessarily physically present or necessarily is communicated through the Internet-connected computer from which it is requested. In fact, a request for a document, made by clicking an icon displayed by a Web server, often merely connects the requester's computer to a third computer containing the requested information. The third computer may be half way around the world from the computer originally contacted.

Those interested in developing a rule of law and an effective legal profession must think about how lawyers, judges, legislators and administrators will get the requisite knowledge.

It is the Internet, more than information technology in general, that offers the potential to do all these things. Focusing on frame relay, ATM (Asynchronous Transfer Mode), proprietary videoconferencing techniques, or on any other proprietary approach not closely linked to the TCP/IP and http protocols that define the Internet and the World Wide Web is a distraction. It is important to understand that what makes the Internet special in regard to law, legal institutions and legal education is its modular character and universality.

Before the Internet, one could distribute or acquire information by an electronic network, but one had to invest in establishing the network itself, invest in software at both ends of the connection, and other infrastructure features. By using the Internet, one can take the network for granted. One can assume Web server and browser software at both ends of the connection. In other words, one can take the infrastructure and user interface for granted and concentrate on the particular value-added features that are within one's own particular competence.

United States law schools have an important role to play in connection with these revolutionary phenomena. They can and should support electronic publishing and virtual library initiatives by public institutions. They must continue to perform their functions of generating intellectual and human capital in the form of scholarship and well-educated graduates, taking into account the new substantive legal issues presented by the Internet. It is increasingly clear that the Internet provides a new set of educational tools—tools for "distance learning." More schools must begin to understand how these tools can be used to improve the quality of their teaching.

I. SUPPORTING ELECTRONIC PUBLISHING AND THE VIRTUAL LIBRARY

The Internet is a means of making existing, and mostly state-based, public institutions more effective. The Internet functions as a virtual library, a medium for electronic publishing, and a case manager. The virtual library and electronic

^{9. &}quot;Effective" signifies improvements in democratization and legitimacy as well as improvements in efficiency. Often, efficiency conflicts with democratization and legitimacy. In the short run, transparency usually impairs efficiency.

^{10.} Electronic publishing has multiple effects: in the first as a technique for improving the functioning of courts and other existing institutions; in the second as an example of the transformation of information markets; and in the third as an influence giving rise to new political

publishing functions are interdependent. The extent of the virtual library depends upon the scope of relevant electronic publishing. John Dawson explained how the wide availability of legal tests promoted the unification of legal systems in his classic, The Oracles of the Law. 11 The Internet, by making it easier for lawyers in different legal cultures to access information about other cultures similarly promotes unification. Constitutionalism and human rights are ripe for this kind of unification. The restricted set of authoritative texts, about a dozen new constitutions and the Universal Declaration of Human Rights, the International Covenant of Civil and Political Rights and the European Convention on Human Rights ("ECHR"), and relatively limited output of specialized courts should enhance the feasibility of constructing a complete electronic information system that encompasses all relevant precedent. There is the possibility that these institutions will develop a common case law, not necessarily in the stare decisis sense that a case from the Czech Republic will bind a Slovenian court, but in the sense that all of the state decisions within the United States make up a common case law. Such harmonization would make constitutionalism and human rights law a truly international set of norms rather than a patchwork differing from state to state. National courts and legislatures must be tied to supranational ones; an ECHR decision or an Organization for Security and Cooperation in Europe ("OSCE") finding cannot influence a national judge or legislator if he does not know about it. That is where the Internet enters; it enables him for find such a decision and use it as justification for his own.

A new international court, or a national one trying to enhance principled decisionmaking need not have these aspirations frustrated by a poor traditional law library. The virtual library function also enhances the legitimacy of the institutions using it. A controversial case by the constitutional court in the Czech Republic may be more difficult to vilify if it is factually similar and decided similarly as a case decided by a constitutional court in Slovenia, if the analogous case is known and recognized by the Czech judges.

A rich variety of national materials from the same country, national materials from other countries and international materials from the ECHR are available through the Web. Access to them can be organized easily and cheaply by constructing specialized Web pages oriented toward the types of cases in the areas of law most frequently of interest to a particular tribunal. The Venice Commission recognizes the potential of such an information infrastructure for the

intermediaries.

11. JOHN P. DAWSON, THE ORACLES OF THE LAW (1968). Dawson explains the importance of dissemination of legal texts and decisions through law reports:

One main theme that will recur throughout this study is that the reasoned opinion, issued by the judge as a function of his office, is modern product. I will also contend that the assumption by judges of a duty to publish their own official statements of reasons has transformed their relationship to other agencies for the declaring and making of law.

Id. at xii.

constitutional courts by publishing their opinions and developing a conceptual topology or thesaurus to index opinions according to their subject matter.¹²

Electronic publishing is a tool to promote compliance as well as increasing efficiency and legitimacy. The Bosnian Ombudsman, a creature of the Dayton Accords, is a feature of human rights law. Someone alleging a human rights violation may file a complaint with an ombudsman, triggering the ombudsman's duty to investigate. If settlement is achieved, the ombudsman's job is complete. If it is not achieved, the ombudsman may publicize the human rights violation, seeking to mobilize domestic and world opinion to induce the offending governmental entity to resolve the dispute and to mend its ways.

Inherent in the ombudsman tradition and nomenclature is the idea that informal means, particularly public opinion, can be an effective alternative to more traditional, formal court judgments and coercive enforcement and execution of them. That is where the Internet comes in. The Internet is a startlingly effective new tool for mobilizing public opinion through electronic publishing.

Not only does electronic publishing on the Internet enhance the power of official judicial institutions, the vast network of interested nongovernmental organizations and human rights advocates around the world can focus public attention by adding their own indexes and analytical frameworks to raw material developed and published by the ombudsman. The need for translations into other languages need not delay publishing. The basic findings can be posted in the native language of the ombudsman with anyone else anywhere in the world performing the translation function through the World Wide Web.

Electronic publishing is profoundly important in preserving a rule of law and enhancing democracy. Freedom of information is an essential feature of responsive government. In the past, freedom of information meant a right in the press and public to obtain information on paper upon request. Now, freedom of information means more. It means the possibility of accessing virtually the entire stock of public information generated by governments at the click of a mouse button.¹³ This is significant not only for the convenience of citizens and their representatives who can retrieve information quickly and cheaply but also for governments who can disseminate information cheaply. Now, even small countries like Macedonia can expect their information resources to be widely available even though the market for government information from such small countries is likely to be too thin for traditional publishing initiatives. Because the Internet reduces costs, it lowers barriers to entry and makes it easier for even smaller bodies of information to be made available.

The case management function permits documents filed anywhere to be available from everywhere the court desires. New constitutional courts need not establish regional court houses or be integrated with a hierarchy of trial courts in order to be accessible to individual claimants. The case management function

^{12.} The European Commission for Democracy Through Law ("the Venice Commission") is an advisory body on constitutional law, organized within the Council of Europe.

^{13.} See generally Henry H. Perritt, Jr., Sources of Rights to Access Public Information, 4 Wm. & Mary Bill Rts. J. 179 (1995).

also permits confidential deliberations among the judges and conferences with counsel without all of them having to be in the same place at the same time.

Using the Internet in this fashion, to automate adjudication, and to link it to an increasingly unified body of substantive law, does not require any change in the formal organic or procedural documents for the potential institutional users in Eastern and Central Europe. Nevertheless, the mere existence of technology does not change international law; people have to use the technology for certain activities.

The Internet is a vast virtual library. In order for this library to have a collection, however, individuals and institutions possessing relevant information must place it on computers connected to the Internet. Moreover, other individuals and institutions must provide a value-added layer of bibliographic information pointing to primary documentation. For example, the full text of treaties must be placed on the Internet, and someone must also organize a list of treaties with pointers to the text of the treaties, which may be located on a multiplicity of servers. Many of those providing the bibliographic information may choose to standardize the typologies or thesauri for indexing documents, but they need not do so. One of the Internet's major advantages is the diversity of approaches to information retrieval.

The rest of the world is just starting to take advantage of the Internet's potential for electronic publishing and virtual libraries. The United States is far ahead both in terms of its electronic publishing and virtual library activities, and in terms of its freedom of information policies. That does not mean, however, that there is not much work yet to be done in the United States. For one thing, much state and municipal information is hard to find in paper formats. The markets for such information are not large enough to induce private publishers to distribute such materials. Few local governments have the technical expertise or the motivation to organize several Web sites. Accordingly, law schools, especially those with a local or regional orientation, can perform a valuable service by working with state and local authorities and local bars to get primary material such as municipal ordinances and housing and zoning codes on the Web.

Law schools can do more. To start, every law school should make sure that its law review is available in full text form on the Web. The main purposes of law reviews are to provide a special educational opportunity for law students and to disseminate new contributions to legal scholarship. They are not primarily commercial enterprises. Thus, if placing the full text of law review articles on the Web facilitates dissemination and provides practical opportunities for law review students to learn about Web-based publishing, the Web initiative will fulfill law review purposes—it is irrelevant if Web publishing decreases "sales" of the paper volumes of the law review.¹⁴

Law schools and law professors also play an important role when they organize "portals" and "one-stop shopping centers" for legal content placed on the Web by somebody else. Faculties and deans should encourage this kind of

^{14.} See Bernard J. Hibbets, Last Writes?: Re-assessing the Law Review in the Age of Cyberspace, 71 N.Y.U. L. REV. 615 (1996) (suggesting web-based formats for law reviews).

publishing and enhancement activity by their faculty colleagues.

Both the placement of primary information and the publication of bibliographic aids is facilitated by the Internet. An Internet server can be established for a little as \$3000. All it takes to publish a document on the server is to save it in a particular format (hypertext markup language "html") from either of the two most popular word processing programs, Microsoft Word or Corel's WordPerfect, and then to "publish it" to a particular directory on the server—a single step in either of the two most popular Internet Web browser programs, Microsoft's Internet Explorer or Netscape's Communicator. For an institution such as a court that regularly generates textual judgments or opinions, the process of web publishing can be automated with a few simple scripts that take word processing files and automatically formats and publishes them to an appropriate Web server directory, which automatically generates indexes and tables of contents as new opinions or judgments are added.

The preparation of bibliographic aids also is simple. All one needs is a concept for organizing the information. For simple content, one simply keys the text for the usually hierarchical arrangements for organizing the information resources and links the entries on the word processing documents to the URLs for the full documents. Typically, the linking can be done with one mouse click in popular word processing programs and Web browsers. The typology or thesaurus then is published to a Web server in the same fashion used for primary documents. The Web server containing the bibliographic information may be anywhere in the world and need not have any pre-established relationship with the Web server containing primary documents.

Unfortunately, not all governments make their information resources available for electronic access. The reluctance of some foreign governments stems from the Communist era in which public access to information about government activities either was unnecessary or was actively opposed. In other instances the motivation is not to discourage public participation in government, but to make money. Many government institutions recognize the economic value of government information in electronic form and also recognize that monopolists can extract more revenue by maintaining their monopolies and discouraging competition. Accordingly, they set up government-run or government-sponsored monopolies to sell access to their information resources and block access by others.¹⁵

State sponsored monopolies involving government information are undesirable for a number of reasons. Monopolies make it easier for censorship to occur. Because monopolists have no economic incentive to introduce new technologies, monopolies usually perpetuate older information technologies, thus depriving consumers of the benefits of new technology. Monopolies rarely serve the needs of particular consuming communities as well as a competitive market

^{15.} See Perritt, supra note 13, at 184 (explaining and criticizing agency temptations to set up state monopolies over government information); Henry H. Perritt, Jr., Should Local Governments Sell Local Spatial Databases Through State Monopolies?, 35 JURIMETRICS J. 449, 454-55 (1995).

structure can serve them because no monopolist can understand and cater to the needs of specialized communities as well as a designer and producer who narrowly specializes.

Accordingly, information policy should commit to and encourage a diversity of sources and channels for government information.¹⁶ This policy is best implemented by a legal framework that grants anyone a right of access to basic government information and also gives everyone a privilege to publish that information in electronic form or otherwise.¹⁷

There will always be commercial and economic forces aimed at creating information monopolies. Law schools, their universities and their faculties must vigilantly oppose such monopolies at the state or local level. When appropriate, they should support litigation by Web-based publishers against those who seek to enforce monopolies.

Effective use of information technology also needs technical support. The Internet is easy to use, but work is required to make it so. Any legal publishing or virtual library initiative must allocate sufficient resources to network administration, technical support personnel and training. Often, a university-based effort benefits from the availability of relatively low cost student resources in meeting these needs.

- 16. A good example of a commitment to a policy of diversity is expressed in the Paperwork Reduction Act Amendments of 1996, Pub. L. 104-13, 109 Stat 163 (May 22, 1995), which amended 44 U.S.C. § 3506 to read as follows, in material part:
 - (d) With respect to information dissemination, each agency shall—
 - (1) ensure that the public has timely and equitable access to the agency's public information, including ensuring such access through—
 - (A) encouraging a diversity of public and private sources for information based on government public information;
 - (B) in cases in which the agency provides public information maintained in electronic format, providing timely and equitable access to the underlying data (in whole or in part); and
 - (C) agency dissemination of public information in an efficient, effective, and economical manner \ldots "
- 44 U.S.C. § 3506(d)(1) (Supp. III 1997).
- 17. See Henry H. Perritt, Jr. & Christopher J. Lhulier, Information Access Rights Based on International Human Rights Law, 45 BUFF. L. REV. 899 (1997). In the United States, the Paperwork Reduction Act amendments to 44 U.S.C. § 3506(d) appropriately continue:
 - (4) [With respect to information dissemination, each agency shall] not, except where specifically authorized by statute—
 - (A) establish an exclusive, restricted, or other distribution arrangement that interferes with timely and equitable availability of public information to the public;
 - (B) restrict or regulate the use, resale, or redissemination of public information by the public;
 - (C) charge fees or royalties for resale or redissemination of public information; or
- (D) establish user fees for public information that exceed the cost of dissemination." 44 U.S.C. § 3506 (d)(4).

A number of American law schools, beginning with Chicago-Kent, Cornell and Villanova, have been pioneers in showing how the Internet can be used to facilitate dissemination of primary legal information. Cornell established a seamless channel for making Supreme Court opinions available on the Internet. The Center for Information Law and Policy ("CILP"), which the author originated at Villanova and now directs from Chicago-Kent, established the "Federal Web Locator"—a one-stop shopping center for access to every federal agency Web server. The CILP also led a consortium of law schools, including Emory, Pace, Texas and others, in organizing the "Federal Court Locator," a distributed database of all U.S. appellate court opinions, downloading them automatically from court-system electronic bulletin board computers to Web servers maintained by these law schools. Now, dozens of law schools maintain Web sites that facilitate access to specialized bodies of legal information available through the Web.

The author also led an effort, beginning with Project Bosnia in 1996, to encourage foreign law schools and other legal institutions to launch similar projects. One of the most notable successes is the Macedonian Legal Resource Center ("MLRC"), maintained by the Skopje law faculty in Macedonia. By going to the MLRC website, ¹⁸ one can get the full text of major Macedonian legal resource materials. The MLRC is a good example of how a law faculty can help the profession embrace the possibilities of the new technologies.

These schools and others can continue their leadership by: committing to free availability of basic legal information through the Web; allowing multiple publishing channels; and supporting university- and bar association-based efforts to educate judges and practicing lawyers on the new possibilities for legal institutions and new legal issues likely to arise from electronic commerce.

II. DEVELOPING INTELLECTUAL AND HUMAN CAPITAL

Supporting the electronic printing press and virtual library are not enough; as legal issues arise from the Internet's use for commerce and conversation, we must also provide ideas for policy makers and educate lawyers, in the bench and the bar. Law faculties specialize in educating legal professionals and, in most parts of the world, law faculties recognize the need to include in their educational programs some exposure to issues at the frontier of legal thinking and analysis. The Internet is a source of such issues.

A. Developing Intellectual Capital

Increasingly intellectual capital is beginning to be generated for these problems. The most ambitious project is the Internet Jurisdiction Project ("IJP") of the American Bar Association. Begun by the ABA Business Law Section, it now is co-sponsored with the International Law, Science and Technology and Public Utilities sections. Based at Chicago-Kent College of Law, at the Illinois

^{18.} Robertino Poposki & Gjorge Ivanov, *The Macedonian Legal Resource Center* (visited July 14, 1999) <www.pf.ukim.edu.mk>.

Institute of Technology, and led by reporter Margaret Stewart, a professor at Chicago-Kent, the project will report at the year 2000 Annual Meeting of the ABA in London. The IJP will analyze jurisdictional issues and eight different areas of law, including privacy, tax, consumer protection, banking and financial services, contracts for the sale of goods, contracts for services, and intellectual property.

Many different sections of the ABA regularly hold programs on the legal applications of the Internet. Additionally, the National Academy of Sciences/National Research Council commissioned a major policy analysis of encryption policy, which was completed in 1996. It now has underway, in cooperation with the German American Academic Committee, an investigation of "global networks and local values." ¹⁹

Law review articles are proliferating, exploring issues as diverse as jurisdiction in cyberspace, electronic signatures, appropriate application of contract avoidance rules when consumers are taken advantage of, and the like.²⁰

As often happens with early scholarly exploration of new phenomena, many of the articles simply identify the issues raised as commerce and political activity moves to the Internet. Increasingly, however, commentators are beginning to suggest specific ways of adapting or replacing traditional legal doctrines to handle these Internet disputes more appropriately. Jack Goldsmith's proposal, that personality-based jurisdiction may be the best answer to jurisdiction problems, is one good example. Peter Swire's distinction between "elephants" and "mice" is another because it focuses attention on the sharply different problems associated with large enterprises doing business on the Internet, where the challenge may be to prevent overreaching by national law, and small enterprises and individuals engaging in harmful activity on the Internet, where the problem more likely is to be underconclusive and ineffective enforcement. Larry Lessig, David Johnson, and David Post explore possibilities that new

^{19.} The author serves as a member of the committee.

^{20.} A January 30, 1999 Westlaw search of the "JLR" database revealed 772 documents with the word "Internet" included in their title. See, e.g., James Garrity & Eoghan Casey, Internet Misuse in the Workplace: A Lawyer's Primer, 72 FLA. B.J. 22 (Nov. 1998); Michael R. Gottfried & Anthony J. Fitzpatrick, The Internet Domain Name Landscape in the Wake of the Government's "White Paper," 42 B. B.J. 8 (Dec. 1998); Robert L. Ullmann & David L. Ferrera, Crime on the Internet, 42 B. B.J. 4 (Dec. 1998); Dawn A. Edick, Note, Regulation of Pornography on the Internet in the United States and the United Kingdom: A Comparative Analysis, 21 B.C. INT'L & COMP. L. REV. 437 (1998); Christopher E. Friel, Note, Downloading a Defendant: Is Categorizing Internet Contacts a Departure from the Minimum Contacts Test?, 4 ROGER WILLIAMS U. L. REV. 293 (1998); Josh A. Goldfoot, Note, Antitrust Implications of Internet Administration, 84 VA. L. REV. 909 (1998); Sandi Owen, Note, State Sales & Use Tax on Internet Transactions, 51 Fed. COMM. L.J. 245 (1998).

^{21.} See Jack L. Goldsmith, Against Cybernarchy, 65 U. CHI. L. REV. 1199 (1998).

^{22.} See Peter P. Swire, Of Elephants, Mice, and Privacy: International Choice of Law and the Internet, 32 INT'L LAW. 991, 1019 (1998) (defining elephants as large enterprises such as AOL and mice as small enterprises and individuals).

forms of interaction popularized by the Internet might be good guides for the legal system more generally.²³ And the author has explored how the Internet may change international law, and the possibilities for self-governance.²⁴

Sufficient momentum is underway with respect to research and scholarship, and other mechanisms for generating intellectual capital that little need be done to stimulate this activity. It is inevitable that law school faculties will continue to explore legal applications of the Internet and related information technologies.

B. Developing Human Capital

Law schools also must adapt legal education to encompass the Internet. In doing so, they must distinguish between technology as an educational tool, and technology as a source of legal problems that lawyers help solve. Educating legal professionals about information technology as a tool sharpens needed skills. All law students should know how to use a personal computer ("PC") for word processing and email, and all should know how to use the Web. Increasingly, law students learn this on their own, often before they enter law school. Part of a law faculty's responsibility is to reinforce the need for these skills, to expect the skills of their students and to provide supplementary instruction as necessary for students who lack the requisite skills. The same approach is appropriate for newer skills such as ability to publish a Web page, and basic knowledge of database design and use. A competent law graduate for the 21st Century should know how to publish a Web page as easily as sending an email message.

Educating legal professionals about the legal problems arising from the Internet ultimately will occur in the regular curriculum, just as learning about contract problems resulting from use of the telephone and learning about torts arising from automobile use are covered in the regular contracts and torts classes respectively. At present, however, there are few teaching materials that cover Internet-related problems, and few faculty are sufficiently familiar with how the Internet is used in commerce and how it functions to generate their own.

Two initiatives by law schools and legal publishers thus are needed in the near term. First, they should undertake to develop teaching materials and equip willing faculty with knowledge of Internet commerce. Second, they should offer courses such as "Computer Law," "Internet Law" or "Cyberlaw." Such courses

^{23.} See David R. Johnson & David Post, Law and Borders—The Rise of Law in Cyberspace, 48 Stan. L. Rev. 1367, 1370 (1996); Lawrence Lessig, The Constitution of Code: Limitations on Choice—Based Critiques of Cyberspace Regulation, 5 COMMLAW CONSPECTUS 181 (1997).

^{24.} See Perritt, supra note 8, at 417 (suggesting points of tangency between cyberspace and other legal systems and rules of thumb for sovereign deference to cyberspace "sovereignty;" "self-governance may be more efficient; the rules and/or the adjudicatory techniques for applying the rules may need to be different from those of the surrounding community; it may be impracticable to apply the rules of the surrounding community; or compliance with basic norms of the community may be higher when members of the subcommunity participate in self-governance); Perritt, supra note 2, at 425; Henry H. Perritt, Jr., The Internet Is Changing International Law, 73 CHI-KENT L. REV. 997 (1998).

should cover the following subjects:

- (1) Introduction to Internet technology, stressing the function of routers in packet-switched networks, and the architecture of http, ftp, and mail protocols;
- (2) Contract formation via electronic networks;
- (3) Authentication and electronic payment systems;
- (4) Tort issues in the Internet, including standards for intermediary liability;
- (5) Jurisdiction to prescribe, to adjudicate, and to enforce;
- (6) Intellectual property in the Internet, especially copyright and trademark;
- (7) Computer crimes, with an emphasis on definition, detection and apprehension;
- (8) Consumer fraud and breach of Internet access service contracts; and
- (9) Relationship of the Internet to the public switched telephone system and its regulation.

These subjects can be covered adequately in a one-semester course, meeting three hours per week, if students already have sufficient grounding in basic contract, tort, jurisdiction, crimes and administrative law, and if the instructor is appropriately selective in assigning materials to permit in-depth analysis of examples rather than a superficial description of a multiplicity of problems in each topic.

For law schools it is difficult to decide how to approach Internet-related issues that eventually should be covered in regular law school courses. Unlike the case with primary and secondary public school education, it is not the legal academy's tradition to make collective judgments about the content of the curriculum. The challenge is to induce individual teachers, without interfering with their academic freedom to design their own courses, to teach their students about the legal issues which arise when commerce and other human activity moves to the Internet.

One way to accomplish this goal is to ensure that Internet problems and cases creep into the case books. Most law professors structure their courses around case books. As interesting issues in contracts, torts, procedure and property are solved by appellate courts, ²⁵ casebook authors no doubt will begin to include these cases, and the problem gradually will take care of itself.

But the process can be accelerated. More and more law professors are becoming exposed to Internet issues through the American Association of Law Schools ("A.A.L.S."). For example, the A.A.L.S. program in January, 1999, included many sessions dealing with some aspect of the Internet. Notably, the sessions were not sponsored by the section on Law and Computers; they were sponsored by the mainstream sections on contracts, conflicts of law, property and civil procedure. Programming of this sort, which is likely to continue and

^{25.} A January 30, 1999 search of the Westlaw "allcases" database revealed 168 cases with the word "Internet" in their syllabus or headnotes.

intensify, will convince law professors all around the country, in the full range of law schools, that Internet issues define the frontier of their subject areas.

Motivated professors will expose their students to these issues on the frontier if they can do so at tolerable costs. Two ways exist to reduce costs for these law professors. One way is to make it easier for them to learn about the basic technological features of the Internet that matter in resolving legal disputes. Another way is to make anthologies of legal commentary, caselaw and statutory law available to them for a transitional period until the regular case books include such materials.

III. Using New Tools for Teaching

The Internet can be a tool for legal education as well as the subject of scholarship and education. New Internet- and Web-based technological tools, grouped generally under the rubric of "distance learning," offer new opportunities to enhance legal education.

Distance learning, as the term is used in this article, extends to all uses of computers, telecommunications, and digital networking technologies that permit education to occur outside a conventional classroom. Thus defined, it includes preparation of video tapes of lectures, pre-programmed Computer Assisted Legal Instruction ("CALI") exercises, and use of the Web to deliver these and other materials. These technologies have been around for several decades. The more interesting distance learning opportunities focus on newer technologies and new combinations of older technologies. In particular, digitized video and audio presentations can be delivered through the Web, and through appropriately designed Web pages, video and audio can be combined with interactive exercises, assigned and supplementary text and graphical materials, and electronic discussion groups.

In the past five years the interest in and capability to deliver computer-supported education at a distance has literally boomed. Federal funding, the emergence of the Internet, pervasively available and inexpensive PCs, and the potential for efficiency, reach and pedagogical improvement, have fueled growing interest and experimentation by universities in the use of distance education. Experimentation with distance learning technologies has occurred at Cornell, Chicago-Kent, Villanova, SMU, and elsewhere. Typically, these experiments involved specialized proprietary videoconferencing technology in relatively small classes. The Kaplan Organization announced its intent to offer a J.D. degree entirely through the Internet. Regents University received approval from the ABA to offer an L.L.M. degree entirely through the Internet. Florida State University and the Open University and College of Law of England and Wales have announced their intention to explore offering a variety of undergraduate legal courses remotely, making greater use of Internet technology.

Meanwhile, engineering schools, including such distinguished ones as Stanford, and MBA programs, including such distinguished programs as to the Sloan School of Management at MIT and the Wharton School of Business at the University of Pennsylvania, are actively deploying distance learning alternatives to their regular programs, especially in foreign markets.

Because distance learning can both supplement, and replace parts of an existing education process, it is convenient to have in mind a simple model of the conventional process. Such a model can unbundle a J.D. course into four components: (1) classroom instruction; (2) class preparation through assigned readings; (3) occasional office visits in which students and instructor discuss course materials and deal with student questions; and (4) student-to-student discussion of materials, such as occurs in study groups.

Use of distance learning technologies is most advanced for the second component. Through one of several available techniques for electronic publishing, authors and editors of course materials can make them available cheaply and conveniently to law students who can read assignments on the screen or print them. The electronic case books used in Chicago-Kent's first-year E-Learn section focus directly on this component of legal instruction. Other techniques, such as publishing all or some of course materials on a Website and linking those materials to entries on a syllabus, are similar examples of automating this component. A significant percentage of published law school case books are available in electronic form, albeit not directly on the Web.

A growing number of law schools are using Internet technologies, predominately e-mail and e-mail listservs, to automate the third component. Students send their questions about points covered in class or read in assigned materials to the instructor who either replies by e-mail or broadcasts the question and answer to the entire class. Web-based discussion groups are another way of organizing the same kind of interaction between student and instructor. Most users of the technology find it more efficient than office hours and student appointments. However, the character of the student-instructor interaction is qualitatively different through the newer medium. It is more focused, partially because an average typist finds extended exploration of related points burdensome and inconvenient. The use of distance learning for this component of instruction tends to make student-instructor interactions more succinct, which may or may not benefit learning.

The same technology applications often used for the third component are well suited for the fourth, student study groups. For several reasons, this technology has been used sparingly in the past. First, students tend to use the discussion groups and listservs to present questions directly to the instructor, and they are likely to use the application for nothing else unless the instructor deflects these bilateral questions and answers into a broader multilateral electronic discussion. Not many instructors realize the need for this purposeful intervention.

Moreover, the same characteristics of the technology that discourage extensive exploration of collateral points and intellectual context in student-instructor discussions may also discourage wide ranging electronic study group discussions among students. It takes more work to follow a group discussion through a computer display than simply to sit at a conference table and participate orally.

Less has been done to use information technology to complement or replace what goes on in the classroom, the first component. To be sure, the Illinois Institute of Technology and other universities have been using distance learning in the form of remote television broadcasts of classroom lectures for many years. Closed circuit video of this form, however, simply takes a piece of what goes on in the classroom and makes it available remotely; it does not probe the classroom experience deeply or select particular pieces for technological enhancement. The E-Learn experiment at Chicago-Kent has motivated automation of the classroom experience. Not only has student use of electronic case books on notebook computers in class subtly altered the in-class interaction between student and teacher, in class use of Web pages and prepared electronic materials has presented alternatives to the spoken word, blackboard diagrams and paper handouts.

Limited distance learning experiments with Internet-based television, have permitted student-student and student-instructor interaction in "classroom" environments encompassing multiple law schools at the same time. Chicago-Kent faculty and technology staff who have participated in these experiments have come away struck by how much is missing from a simple broadcast of a part of a law class. Much of the ritual, stress and entertainment aspects of a good Socratic law class is lost. The subtle nonverbal cues from class to instructor communicating levels of preparation, degree of student comprehension, boredom and interest are lost. To the extent that the best law school classes have these elements in them, and to the extent that good law professors make effect use of pace, momentum, theatre and overall group dynamics in their teaching, it is important that further technology development in legal education explore these phenomena more deeply and take advantage of the full range of technological tools that are readily available. Only in such an environment can choices of techniques be driven by pedagogical judgment rather than technological convenience.

In addition, several decades of bar review teaching, in which video broadcasts are a regular alternative to live classroom presentation, provide a rich source of empirical data about the impact of video technology on the educational process. Little has been done so far to make effective use of this experience.

The frontier for distance learning is the classroom. Use of Web technologies for other components of the learning experience are proven and will be used by more law faculty as they become familiar with the techniques and gain access to the necessary infrastructure. As the interim ABA guidelines note, distance learning can be useful not only for regular law school classes in J.D. programs, but also for post-J.D. programs, for clinical instruction where maintaining faculty oversight can be difficult, and for foreign programs. Chicago-Kent has been especially active in exploring distance learning techniques for managing international Rule of Law externship programs, and in designing new practitioner-oriented education programs for China.

A. Virtual Classroom

The preceding section suggested that one can think about distance learning technologies in legal education in two different contexts. The first context relates to using distance education technologies as an enhancement to regular classroom-based instruction. The second context invites consideration of the use

of distance learning technologies as a way to substitute new modes of education for some existing classroom time. This section considers the second context and poses some of the questions that must be resolved in designing useful experiments for "virtual classrooms."

Good design of a virtual legal classroom begins by deconstructing the law school classroom experience. One approach to such deconstruction identifies the following specific purposes for classroom instruction in law school, with the first-year socratic class as a paradigm, including:

- (1) Modeling the behavior of judges and advocates;
- (2) Transmitting information;
- (3) Quizzing students to give them feedback on how they do;
- (4) Allowing students to practice articulating legal concepts and developing argument and patience skills; and teaching students how to deal with stress in an advocacy situation.

If one accepts the above-mentioned list, it is apparent that many of these purposes can be met by the use of information technology equally as class instruction. The quizzing and the translating information tasks are the clearest examples. Other goals, such as role-modeling, might be best met by showing law students actual instances of judging and advocacy.

Using information technology to relax the constraints of the calendar and the clock could improve what now must occur in the classroom. For example, one could begin a semester with actual virtual observation of judging and in court advocacy. Then, one could have a period of live discussion followed by a period of virtual interaction shaped by specific professor questions and CALI-type exercises. Toward the end of the semester, one might have a moot court or mock trial experience for all the students followed by a critique. By substituting information technology for the classroom channel in instances where information technology can do the job as well or better than in-class activity by the professor, the professor is freed to do other things that ordinarily would not be feasible within manageable investments of time for regular classes.

However, designing appropriate "virtual classroom" tools and modules requires answering a number of mixed pedagogical and technological questions.

1. How Much Content Should Be Produced in a Studio Environment and How Much Should Be Captured from an Actual Classroom?—Capturing classroom activity by video and audio broadcast reduces the requirements for faculty time, and, therefore, may be more acceptable to some faculty members, and may require fewer budgetary resources. On the other hand, costs for video and audio operators may be higher because of the need for cameras to follow instructor movement around the classroom and to capture student interaction. Also, because of the complexity and richness of a good classroom interaction, it almost certainly requires a high degree of artistic talent to capture the important qualities of the interaction. It is not clear whether law schools will be able to mobilize the requisite cinematographer, director and video editing talent at affordable costs. If they cannot do so, simply filming students and professors in a Socratic classroom is likely to be the merest shadow of the reality.

Studio production permits use of technology to do things that are difficult to

do in a live classroom, such as quizzes and programmed instruction, scripted presentations, simulations and multimedia techniques such as streaming PowerPoint presentations. It also may be easier to make effective use of video or audio of actual real world events when they are edited into other studio-produced materials, rather than being played live in a classroom with the entire classroom experience including audio visual aids being taped or broadcast. The principal disadvantage of extensive studio production is greater expenditure of faculty time, probably much greater, and the capital expenditures necessary for appropriate production and editing equipment.

2. How Important Is a Group Setting for the Students?—Regardless of the nature of the distance learning materials, whether broadcast or recorded from a classroom or produced in a studio, they can be delivered to students either in a solo setting, such as an individual student's home or office, or they may be delivered to students in a group setting, such as a remote classroom, or a conference room controlled by an institutional sponsor. The common experience of most people suggests that there is significant motivational value of being scheduled to go to class at a particular time with other people. There is a combination of embarrassment and loss of self esteem when one misses class. The loss of self esteem is less when one simply fails to do an individual computer-based exercise. Also, distractions are minimized in the classroom; students are shielded from telephone calls, television in the background and requests from children or spouses.

On the other hand, some of the benefits of distance learning technology are eliminated when one delivers education only into group settings. Actual or imputed rent must be paid for the classroom space. Students must travel to be with other group members. The group must meet at prescribed times. There must be enough students within a reasonable distance to permit a group to be formed. Eliminating the group learning constraint permits time shifting entirely according to individual student desires that eliminates the cost and time associated with travel and any sort of critical-mass or remote-facility requirement.

Technology requirements for group learning are challenging. It is difficult with low-cost, Internet-based technology to capture the group interaction. Should there be one or multiple cameras? Should each student be wired, should a staff member carry a microphone around the classroom, or is the group small enough to use a single, table-top microphone? On the other hand, equipment for delivering course content to students in groups is simpler than delivering it to students in solo settings. Only one appropriately-sized video display device and an audio system is necessary for the entire group, as opposed to one for each student that would be necessary in a solo setting. Also, the students can interact with each other orally, eliminating the need for technology applications to permit student to student interaction. Obviously, design decisions must be made as to how the remote group communicates with the professor, but that decision also must be made with respect to solo learners.

3. Should the Virtual Classroom Experience Be Synchronous (Simultaneous) or Asynchronous (Time Shifted)?—Asynchrony (time shifting) has advantages, including accommodation of student and professor. Anyone can schedule class

attendance whenever it is most convenient, assuming solo, rather than group reception. Specific classes can be defined by time periods, such as twenty-four or forty-eight hours or one week. To attend that class means to participate a specified number of times during that extended period. Students can interact with each other and with the professor by posting questions or comments in the form of text messages or video or audio clips. They also can make changes to Web pages to which they all have access, a kind of white boarding concept. Through these processes, asynchronous interaction can be fairly probing.

On the other hand, the lags between question and answer and comment and response can reduce the quality of the experience. A live interchange permits instant clarification of ambiguities or misunderstandings. Simultaneous interaction, to be efficient, must involve audio and perhaps video; it is simply too inefficient for multiple users to wait while a poor typist laboriously enters an idea in a coventional "chat room."

- 4. How Much Does Video Add?—The most common form of distance learning is probably a "talking head," a broadcast or video recording of a professor teaching a class. It is reasonable to ask how much richer such a video image is than presentation of the same class through audio alone, especially when the video images such as streaming video over an Internet connection are not "television quality." A related question is what should be shown on the video. Under what circumstances is streaming PowerPoint or edited video of real world events better than a talking head? On the other hand, talking heads are almost certainly cheaper to produce than any other kind of video.
- 5. What Is the Most Appropriate Mix Between Audio and Text?—Should some things be delivered by streaming audio rather than text? Why, because audio is easier and cheaper than text? What use should be made of voice recognition technology to produce transcripts, perhaps imperfect transcripts, of prerecorded audio?
- 6. To What Extent Should Media Channels Between Students and Professor Be Symmetrical?—One can envision distance learning environments in which material is presented to students through a combination of full motion video, audio, text and static images, while students respond and interact with each other only through text. This is a typical Web-based distance learning environment. One can also envision a setting in which students receive video and audio, but respond only via audio, as in a typical remote classroom equipped with a speaker phone. How important is it to add video from the students? What is the purpose? Does it enhance the students' experience or the professor's, or both?
- 7. Does the Following Adequately Disaggregate the Elements of a Traditional Class?—Communicating rules and concepts to students? Role modeling—exemplifying problem-solving behavior of practicing professionals? Giving feedback to students through quizzes and evaluation of simulated professional activities? Allowing for student-to-student interaction?
- 8. What Technology Applications Are Most Interesting?—Multi-user white boards? Multi-user Internet Telephony? Improved video streaming over the Web? To be "interesting," an application must be available in easily deployable form and must meet a pedagogical need.

B. Accreditation Issues

Aggressive use of distance learning raises significant problems under the existing rules of accreditation for law schools to the United States. Standard 304(f) of the ABA standards for approving law schools says, "a law school will not grant credit for study by correspondence." Almost everyone interprets this prohibition as including any form of distance learning that might be useful. In 1997, however, the Section on Legal Education of the ABA adopted interim guidelines to encourage experimentation with distance learning. These guidelines suggest a more favorable reaction to post-J.D. programming than to J.D. programming and also express a clear preference for educational content sent from one physical law school to another rather than programs that allow students of one law school to receive credit at that law school without physically being present for classes.²⁷

Beyond that, the interim guidelines allow considerable room for experimentation with technology that enhances existing courses as long as students are not relieved of the obligation for regular and active physical participation in classes.

It is important to understand the relationship between Learning with Electronics at a Distance Program ("Learn-ED") experiment and accreditation. Accreditation is a standardization and minimum quality control system. It is not meant to be the source of innovation. It may be that new technologies make available teaching techniques that should cause accreditation rules to be changed. The legal academy will never know what those are if experiments only take place within a conservative estimate of what the accreditation rules allow. Accordingly, an essential part of any proposal is that it be bold and essentially uninhibited by existed accreditation standards. Law schools must be willing testing grounds. This does not suggest defiance of accreditation rules or bodies; instead, it suggests taking a prominent leadership position in the current A.A.L.S. and ABA task forces which are developing an understanding of the relationship between distance learning technology and sound education.

C. Specific Plans

For almost two decades the Chicago-Kent College of Law has been preeminent in the application of computer technology to the teaching of law. The law school has gathered a gifted faculty of powerful intellectuals who are making visible and important contributions to legal scholarship. Its parent institution, the Illinois Institute of Technology, has been a leader in the use of analog television for distance education.

Chicago-Kent intends to leverage its historical institutional strengths and the recent societal developments to move in a deliberate but concerted way towards

^{26.} See Temporary Distance Education Guidelines, SYLLABUS (ABA Sec. of Legal Educ. and Admissions to the Bar), Fall 1997, at 12 (encouraging experimentation).

^{27.} See id. at 13 ("[D]elivery of course work to a person's home or office would generally not be in compliance with these principles.").

leadership in the delivery of computer-enhanced legal education at a distance. The law school will devote focused energy to enhance all of its E-learn sections to enable professors and students to use Internet tools as improvements to the existing traditional classroom instruction. E-learn techniques will be applied to the second and third year curriculum when targets of opportunity appear, as the faculty approves extensions of the present initiative.

Chicago-Kent will begin to deliver an Internet-enhanced Evening Division curriculum in fall 1999. The law school will immediately review the pedagogy, methodology, support structure, performance and student acceptance of its pioneering E-learn first year curriculum. All faculty members teaching E-learn sections will be offered additional resources to extend, improve and enhance the use of computer-assisted techniques. Special emphasis will be placed on the use of Internet tools that permit students to learn collaboratively and asynchronously. In early 1999, faculty members were recruited to devote intense effort to make the Evening Division curriculum a model for electronically enhanced education. The school began immediately to enhance electronically all of the courses taught in the Evening Division. Special emphasis was placed on delivering educational experiences outside the classroom using distance education, including facultystudent interaction outside of class, student study groups and discussions, clinical simulations and client interaction over the Internet. Classroom instruction and the study of substantive material were supported by use of computer exercises, problems and interactive lessons. This Learning with Electronics at a Distance Program ("Learn-ED") will evaluate and experiment with distance learning technology, including e-mail, discussion groups, chat rooms, streaming video and audio, video conferencing and computer white board tools.

Upper level courses will be enhanced in the same way, as faculty choose to implement these changes. Enhancing the Day Division first year courses will produce two years of curriculum for the Evening Division. In 2000 the school will reevaluate the progress in large enrollment upper level courses to determine if more directed efforts to encourage distance enhancements are needed.

In addition to the strategic target of a distance-enhanced Evening Division beginning in fall 1999, the law school expects that the educational tools, lessons, simulations and exercises will be useful in building a variety of instructional programs for other markets. These new markets will include foreign lawyers interested in U.S. law, undergraduates seeking interprofessional degrees, business executives and others who will not practice law but seek less-expensive or less-disruptive access to high quality legal instruction. The new educational program and materials will be mined to leverage their usefulness in these new markets. Obvious examples include: the China-Bridge initiative, Building Businesses on the Web, the Financial Markets curriculum and a number of opportunities for distance instruction in Europe.

As soon as possible, three core upper class subjects, such as Evidence, Federal Income Taxation, Constitutional Law, Decedents' Estates or Federal Courts should be scheduled so that one contact hour per week can take place in a regular law school classroom and the remaining contact hours (typically two) can occur through appropriately-designed distance learning Web channels. Initial selection of courses should give preference to subjects in which interactive

instructional materials already exist. The Web-based contact hours should be designed to provide, as nearly as possible, the educational ingredients present in the classroom and addressed by accreditation standards, specifically including instructor control, student eligibility for being "called on," instructor feedback to student recitation and exposure of student contributions to other students in the class. The Web-based contact hours should be packaged so that one class session can be distinguished from another and linked with the assigned materials. In other words, each Web-based class should be a discrete event, although it would not necessarily demand the simultaneous participation of all students and instructor. Instead, the class might be spread over a defined time period to permit the benefits of time shifting. Asynchronous participation will extend student scheduling flexibility with important benefits to evening students.

The Web-based instructional sessions should draw upon the "preceptorial" model of education pioneered for undergraduate education by Woodrow Wilson. At the end of the first year, student performance on examination questions can be compared with student performance on the same questions in regular classes covering the same subject matter. If this cannot be arranged politically, perhaps "baby bar" questions could be given to the Learn-ED students. Upper class experimentation would be done under existing accreditation ground rules. To the extent it seems appropriate, accreditation authorities would be notified of the experiment.

Eventually, as accreditation rules are modified, the same techniques, refined in light of the first year experience, could be extended to first year students with at least two first year courses taught in the same fashion. Similar assessment techniques would be used, and the accreditation authorities would more completely engaged, perhaps conducting onsite visits.

D. Mobilizing Faculty Support

Distance learning will never become successful in legal academia unless mainstream law professors lend it support. It is not enough to get the computer aficionados of the faculty to experiment with distance learning tools. One must enlist the respected Socratic teachers, who teach large classes in basic subjects, regardless of whether they like computer technology. Of course not all such people must be enlisted at the same time. But any serious strategy to experiment with distance learning and to learn more about the relationship between technology and legal pedagogy must involve, from its earliest stages, at least one large-class basic-subject Socratic instructor.

One can anticipate that the biggest source of faculty opposition to distance learning techniques will derive from the professors' sense of independence and tradition. Most of us honor Justice Holmes' maxim that we should do legal education not only in a competent matter but also in the "Grand manner." The paradigm of a successful law school class involves considerable theater. There is great ego satisfaction in teaching one of these classes. To the extent that distance learning technology pulls professors off center stage in the classroom and turns then into video producers and casting directors, the thrill of teaching law will diminish.

As with any innovation, thought must be given to incentives, favorable and unfavorable, for instructors and students who might participate. In the long run, Learn-ED classes might be more attractive than regular classes to law school faculty because of the advantages of time shifting and flexibility of location. In the short run, however, teaching a Learn-ED class will mean considerably more work for the instructor than teaching a regular class. The educational experience must be rethought, the components of a traditional course unbundled and repackaged to take advantage of the technology, and the anxiety associated with any experiment and inevitable difficulties and implementation tolerated. Because of these short run disincentives, significant economic incentives must be made available to those faculty members willing to participate. It is especially important that these incentives be available because, for the experiment to be successful, a broader range of faculty beyond those fascinated with technology must be enlisted. In particular, faculty who like to teach Socratically and using other interactive methods must participate, rather than those who are inclined to lecture and who find it easy simply to prepackage their lectures in electronic media.