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ELECTRONICS AND THE FUTURE OF LAW SCHOOLS

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Electronics and the Future of Law Schools

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We know all about it—the tremendous advances of the internet as a tool for research; the cheap and broad communication links; the sharing of information and data among researchers around the world; the loss of stifling organizational hierarchy; the impossibility of coercive governmental controls; the replacement of crass commercialism by an ethic of community and sharing. Technology, it seems, has created a new set of tools for academic endeavors, strengthening and enriching the university and its component parts, including law schools.

Parts of this scenario will come true. But as one connects in new ways one also disconnects the old ways. Thus, many of the fundamental roles of universities in research and teaching will be superseded. And ironically, the challenge is not caused from outside the academy, but is being created by the university community itself—through its exponentially growing creation of information and knowledge; its pioneering of the internet; its advocacy of a sharing community of knowledge creators; and its competitiveness for status with other researchers and universities.

Scholarly activity, if we look at it dispassionately, consists primarily of three elements: to produce and select knowledge; to preserve it; and to transmit it to others. Accomplishing each of these functions is based on a set of technologies and economics. Together with history and politics, they lead to a set of institutions. Change the technology and economics, and the institutions must change, too, eventually.

Information institutions started about 5000–8000 years ago when at different places around the world specialized preservers and producers of information emerged in the form of priests and temples. Collectively they were also the primary information storage medium of their societies. But since reliance on individual and group memory to store and transmit information across time and space was clearly inefficient,

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recording methods emerged. Writers had to be trained, and schools emerged. Writing, in turn, led to information storage institutions. Under the Assyrian king Assurbanipal (668–627 BC), the royal library in Nineveh stocked over 10,000 works on 30,000 tablets. Documents were arranged by subject in different rooms: history, government, laws, biography, geography and commerce, mythology, religion, hymns, astronomy and astrology, biology, mathematics, medicine, and natural history.¹ Thus, knowledge was already being organized along lines that are strikingly similar to the departmental lines of today's universities. Importantly, the rooms were open to scholars who congregated to use the information and probably to add to it. No doubt they also argued among themselves, and were surrounded by disciples. It was probably the first university in the sense of comprehensiveness of coverage.

This model—centrally stored information, scholars coming to the information, and a wide range of information subjects under one institutional roof—was logical when information was scarce, reproduction expensive and restricted, and specialization low. It became also the model for the most formidable of knowledge institutions of antiquity, the Great Library of Alexandria. When the spirit of collection and inquisitiveness of antiquity gave way to the Dark Ages, at least in Christian Europe, the seeking of knowledge was discouraged. But by the late Middle Ages, with economic prosperity on the rise, information production expanded again through the emergence of universities, from Salerno to Paris, Oxford, Reggio, and Montpellier. These islands of knowledge and scholarship attracted students from afar. A community of scholars was created again, with Latin the common language. Information flowed through a network of diffusion of manuscripts and letters, but especially through the movement of itinerant students and scholars. The direction of the flow was same as it had been in Nineveh and Alexandria: information was the factor that was scarce and hard to move. People were more mobile, even when transportation was primitive.

The university's third fundamental function beyond production and storage of information for the university is its teaching function, and the related credentialing in the mastery of a body of knowledge. For a long time, teaching technology, or more correctly its absence, made the physical aggregation of students the most efficient arrangement, with teaching a wholesale (lecture) rather than retail (individual tutorial) activity, partly because the incremental costs of adding another listener

1. MICHAEL H. HARRIS, *HISTORY OF LIBRARIES IN THE WESTERN WORLD* 17 (4th ed. 1984).

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are quite low, and partly because it generates positive network effects by students encouraging and teaching each other.

The system remained remarkably stable for 2500 years. But it is now in the process of breaking down. The reason is not primarily technological. Technology simply enables change. The first fundamental reason is that the production of information has undermined the traditional university structure, making it ready to implode once alternatives to its function become possible.

An increasing number of studies show that the quantity of information and of information producers has grown prodigiously. It has been said that 90 percent of all scientists who ever lived live today.² The same holds for other information professions such as lawyers, journalists, or engineers. Most branches of science show exponential growth, at about 4-8% annually with a doubling period of 10-15 years. There are about 80,000 scientific and technical journals, and 1500 scientific abstracting periodicals. To get a sense of the trend: *Chemical Abstracts* took 32 years (1907 to 1938) to reach one million abstracts. The second million took 18 years; the third, 8; the sixth, a year.³ It is reasonable to assume that in humankind's entire history before 1907, it did not produce a full million of articles in chemistry. It did so last year.

Individuals and organizations cannot handle this volume of information except by adaptation. The responses are to try to improve processing capabilities by better education, larger staffs, internal reorganization, and investment in technology. But the main response is through *specialization*. German has an apt term, the "Fachidiot" (Specialty-moron). Nietzsche mocked it a century ago. "A scientist was examining the leeches in a marsh when Zarathustra, the prophet approached him and asked if he was a specialist in the ways of the leech . . . O, Zarathustra, . . . that would be something immense; how could I presume to do so! . . . That, however, of which I am master and knower, is the brain of the leech; that is my world! . . . For the sake of this did I cast everything else aside, for the sake of this did everything else become indifferent to me . . ."⁴

The inexorable specialization of scholars means that universities cannot maintain a coverage of all subject areas in the face of the expanding universe of knowledge, unless their research staff grows more or less at

2. DEREK J. DE SOLLA PRICE, *LITTLE SCIENCE, BIG SCIENCE* 73-74 (1963).

3. Chemical Abstracts Service, <http://www.cas.org> (last visited May 28, 2008).

4. 11 NIETZSCHE, F.W., *Thus Spake Zarathustra*, in *THE COMPLETE WORKS OF FRIEDRICH NIETZSCHE* 301-06 (T.N. Foulis 1909).

the same rate as scholarly output, doubling about every 5–10 years. This is not sustainable economically. The result is that universities do not cover anymore the range of scholarship. They might still have most academic disciplines represented—whatever that means—but only a limited width or depth in the numerous sub-specialities. Specialized scholars find fewer similarly specialized colleagues on their own campus for purposes of complementarity of work. In other words, the collaborative advantages of physical proximity in universities decline. Instead, scholarly interaction increasingly takes place with similarly interested but distant specialists of similar specialists, i.e., in the professional rather than the physical realm.

This is not new, of course. Diana Crane's classic *Invisible Colleges* demonstrates the interaction among distant scientists.⁵ But the information-induced pressures of specialization are greater than in the past, and the means to make the invisible college the main affiliation have increased. Air transport has created the jet-setting professoriate. Even more so, electronic communications are creating new scholarly communities which respond to the elementary need for intellectual collaboration, through electronic dialogues, strengthened by the occasional beer at a conference for human bonding. Ironically, it was the universities who paid and paved the way for the network connectivity which help their resident scholars to shift the focus of their attention to the outside.

This gets us to the second function of the university, its serving as a storage of information. In the past it was said that a university is as strong as its library. Imposing law libraries made that statement in stone and ivy. But here, too, the economics and technology change everything. With the production of scholarship rising exponentially, so does the cost of acquisition.⁶ In 1940, Chemical Abstracts cost \$12 yr.; in 1977 \$3500; in 1995 \$17,400. In 2008, \$30,200, not including shipping charges of \$1550.⁷ At the same time, electronic on-line services are becoming powerful in technical terms and comprehensive in content. The rational response of universities is to gradually shift from physical presence of information to electronic access. But such access exists

5. DIANA CRANE, *INVISIBLE COLLEGES: THE DIFFUSION OF KNOWLEDGE IN SCIENTIFIC COMMUNITIES* (1972).

6. Daniel Gore, *Farewell to Alexandria: The Theory of the No-Growth, High-Performance Library*, C. MGMT, Aug-Sept. 1974, reprinted in *FAREWELL TO ALEXANDRIA* 164 (Daniel Gore ed., 1976).

7. See *supra* note 3.

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from all locations. Now, information is everywhere and scholars need not congregate around it.⁸

The third function of the university is the transmission of information, its teaching role. It is hard to imagine that the present low-tech system will survive. Student-teacher interaction is already under stress by the widening gulf between basic teaching and increasing research specialization. And this interaction also comes with a big price tag. If alternative instructional technologies and credentialing systems can be devised, there will be an out-migration from classic campus-based higher education. The tools for such alternatives could be, in particular, online multimedia lectures by outstanding scholars and teachers; electronic access to interactive reading materials and study exercises; some electronic interactivity with the faculty and teaching assistants; “virtual” clinical exercises, and electronic exams when the student is ready.⁹ While it is true that the advantages of electronic forms of instruction have sometimes been exaggerated by their boosters, the point is not that they are superior to face-to face teaching (though the latter is often romanticized, given the reality of mass education).¹⁰ Rather, it can be provided at dramatically lower cost, and at a greater convenience to students with professional and family obligations, or who live remotely. Such an electronic curriculum, once established, would not just be offered to hundreds of students nearby but to tens of thousands around the world. It would be first offered by some universities themselves, though probably not at first by elite colleges which guard their scarcity value but rather by mass-attendance universities seeking additional revenues and reduced cost.

Yet the leading edge will not be universities but rather commercial firms. At present, private universities charge enormously high tuition. For-profit providers inevitably enter where they can do so legally. The commercial providers put together an effective teaching package, making in comparison the traditional teaching at universities boring, just as *Sesame*

8. And with publications increasingly electronic rather than paper-based, scholarship itself is likely to move beyond the static and linear print model to new formats such as electronic and interactive multimedia which we might not be able to store on paper even if we wanted to.

9. Henry Etzkowitz et al., *The Future of the University and the University of the Future: Evolution of Ivory Tower to Entrepreneurial Paradigm*, 29 RES. POL'Y 313 (2000).

10. Carol A. Twigg, *Innovations in Online Learning: Moving Beyond No Significant Difference* (2001), <http://www.center.rpi.edu/Monographs/Mono4.pdf>.

Street has raised the expectations of pupils for high-paced and lively instructional style.¹¹

The impact on universities will not be uniform.¹² On the teaching side, the greatest negative impact will be on mass undergraduate and professional education and on highly specialized and advanced fields. Least affected will be contact-intensive programs such as selective and tutorial-based liberal arts education (especially if it is backed by healthy endowments) as well as skill training requiring hands-on instruction and feedback (such as law), and small but stable fields of graduate study that are not lucrative for commercial providers.

On the research side of the university, the impact of communications technology will be similarly differentiated. Least affected are fields that do not experience rampant growth and specialization, and where the various researchers share a strong core (such as law). Most affected will be highly specialized research with a premium to keeping up-to-the-minute. In between is research requiring physical teams and shared equipment, which will still often be located on campus. These research units, however, will connect more to units at other research institutions in academia and the private and governmental sector than to the rest of the physical campus. This is the continuation of a trend towards semi-autonomous units in a matrix organization of a university, each of them a soft-money tub on its own bottom. As collaborations across institutional lines grow, the separations between the academic, private sector, and government research sectors blur even more than before. And if the financial infusions by government decline, as they do partly due to budget and political pressures, the role of private sector components in the research network must grow to fuel and maintain this system. This, in turn, strengthens some areas of research more than others, and shifts the center of gravity on campus.¹³

11. Another reason to attend a university is that the college years function as a rite of generational passage. This is important, of course, but the shared generational experience could be replicated in other ways, as it did in the thousands of years preceding mass college attendance. And it plays a much lesser role for graduate education.

12. Press Release, The Sloan Consortium, Sloan Foundation Addresses Education Commission on Future of Higher Education (June 5, 2001), available at <http://www.sloan-c.org/news/pr/pr060501.asp>; NEA HIGHER EDUC. RESEARCH CENTER, *The Promise and the Reality of Distance Education*, NEA UPDATE, Oct. 2002, <http://www2.nea.org/he/heupdate/images/vol8no3.pdf>.

13. Eli M. Noam, *Electronics and the Dim Future of the University*, 270 SCIENCE 247, 247-49 (1995).

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Of course, online education has not yet matched the promises of its boosters. There have been high-profile failures,¹⁴ including at my own university problems abound.¹⁵ And it has proven difficult for new, fully virtual institutions to maintain themselves against the established institutions whose reputation was built up over centuries. Even so, the growth in students has been impressive. According to a report by the Sloan Consortium, online enrollments are rising “substantially faster than the overall higher education student body. . . . [with] 3.2 million students . . . taking a least one online course during the fall 2005 term . . . [an] increase over the 2.3 million reported the previous year.”¹⁶ By any standard except that of the earlier hype of the dot com era, online higher education is making steady progress around the world.¹⁷ Except in legal education.

It is hard to imagine that law schools could stand apart from such major forces enveloping the rest of the university. But they have some stabilizing factors on the side of tradition. First, the profession of law has maintained a tight regulation of the educational system that generates the inflow into the profession. Law schools are regulated down to the number of minutes of instruction they must require, the nature of the instruction, and the status of the instructors—even though their graduates must meet a demanding outside test before they may practice. In consequence, legal education has been largely absent from online education, in contrast to the study of education or business, the two mainstays of distance education. Not a single online law school, whether non-profit or for-profit, has been accredited in the United States (and probably elsewhere), on principle, without reaching its merits. There is one unaccredited law school, Concord Law School, owned by

14. Richard Garrett, *The Real Story Behind the Failure of U.K. eUniversity*, EDUCAUSE Q., Fall 2004, at 4, available at <http://connect.educause.edu/Library/EDUCAUSE+Quarterly/TheRealStoryBehindtheFail/39883>; Donald MacLeod, *Oxford Online Learning Project Folds*, GUARDIAN UNLIMITED, Mar. 20, 2006, <http://www.guardian.co.uk/technology/2006/mar/20/elearning.highereducation>.

15. ARTHUR LEVINE & JEFFREY C. SUN, BARRIERS TO DISTANCE EDUCATION (2002); National Governors Association, *The State of E-learning in the States*, <http://www.nga.org/cda/files/060601ELEARNING.pdf>.

16. I. Elaine Allen & Jeff Seaman, The Sloan Consortium, *Making the Grade: Online Education in the United States*, 2006, Nov. 2006, http://www.sloan-c.org/publications/survey/pdf/making_the_grade.pdf.

17. *E-Learning Guide*, U.S. NEWS & WORLD REP., <http://www.usnews.com/usnews/edu/elearning/elhome.htm> (last visited May 31, 2008).

the Washington Post Company through its Kaplan subsidiary.¹⁸ Its students aim either to take the bar exam in California, the only state that does not require graduation from an accredited law school, and practice there, or a few years later in other states. Alternatively, they do not seek a legal career but a legal education that might help them in their main occupation, such as insurance, real estate, or personnel. Traditional law schools are severely limited in their ability to use new technology, with the number of courses a student may take limited to a total of three overall, none of which in the first year, and only one per semester thereafter, and subject to several other requirements.¹⁹ Thus, a strong defense perimeter—astonishingly strong given the antitrust laws that are applied to other activities—exists around existing law schools.

Internally, the strength of traditional law schools against the electronic encroachment is the common core of its faculty, with its professional traditions, language, and style. This common core may offset some the centrifugal tendencies affecting other parts of the university with their extreme specialization at the graduate levels. Traditionally, law professors taught more widely across their field than in many other departments, just as judges range across a wide field.

And the third element of defense is the strong inter-personal element of legal education, as exemplified in Socratic dialogue, the case method, and clinical education. Legal education is not merely the transmission of knowledge but also a process of socialization, a training of effective verbal skills, an analytical style, and the development of a network of personal professional contacts. All of these favor personal interaction both between teachers and students, and among students themselves.

But will these lines of defenses hold? The accreditation restrictions will become indefensible in time, even with the judiciary still smiling benignly on the restrictions. Probably symptomatic is Justice Ruth Bader Ginsburg, a former law professor herself and spouse and mother of law professors, who publicly expressed her skepticism about online legal education. In a 1991 speech at Rutgers University, Justice Ginsburg chastised the lone online law school,

18. In addition, two campuses of Penn State's law school share some courses electronically, under special permission. There are also several non-lawyer degree programs offered in health law, intellectual property, criminal justice and other specialties.

19. Josh Ard, *Crossing the Bar—Serving Over the Net: Legal Education Over the Internet*, MICH. B.J. (Aug. 2000), available at <http://www.michbar.org/journal/article.cfm?articleID=119&volumeID=10> (last visited Feb. 29, 2008).

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I am troubled by ventures like Concord, where a student can get a J.D. (though the school is still unaccredited) without ever laying eyes on a fellow student or professor. We should strive to ensure that the Internet remains a device for bringing people together and does not become a force for isolation.²⁰

Yet this line will not be easy to hold. California is already a major loophole. More importantly, online law schools will organize themselves to shed the image of degree mills and provide programs of quality. They will recruit top-flight instructors from around the world, and a governing board of distinction will offer particular specializations rarely offered by the broad-based law schools. Others will provide programs suited to those who wish to learn about the law as it applies to their professional activity without intending to become lawyers. Where law permeates society, it will often become sought as the secondary credential. Formal accreditation then becomes less important. Online law schools will organize student-faculty and peer interactivity through various platforms such as video, chat rooms, bulletin boards. Students will generate peer experience through community and sharing arrangements. At that point, it is hard to see how they can be excluded by a system run by their brick-and-mortar competitors. Indeed, some of the latter are likely to be among the first to provide online courses, certificates, programs, and degrees. The motivation will be to extend their market, to serve new constituencies, as well as to be innovative in terms of content and style. While the electronic medium starts as a lesser version of the real thing and can thus be easily condescended to,²¹ in time the tables might be turned.²² Technology will not stand still.²³ In time, there will be realistic simulations of court proceedings, well-crafted lectures by star professors, provided in quality video, even 3-D; “virtual worlds” that provide interactive legal situations and other forms of practice and apprenticeship; simulator programs to practice thinking on one’s feet; and wikis and other

20. Robert E. Oliphant, *Will Internet Driven Concord University Law School Revolutionize Traditional Law School Teaching?*, 27 WM. MITCHELL L. REV. 841, 848 (2000) (quoting Ruth Bader Ginsburg, Remarks for Dedication of Rutgers Center for Law and Justice (Sept. 9, 1999)).

21. Maureen Hannay & Tracy Newvine, *Perceptions of Distance Learning: A Comparison of Online and Traditional Learning*, J. ONLINE LEARNING & TEACHING, Mar. 2006.

22. I. ELAINE ALLEN & JEFF SEAMAN, ENTERING THE MAINSTREAM: THE QUALITY AND EXTENT OF ONLINE EDUCATION IN THE UNITED STATES, 2003 AND 2004 (2004).

23. Abdul Paliwala, *Legal e-Learning in Network Society*, J. INFO. L. & TECH. (2007), http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2007_1/paliwala/paliwala.pdf.

community tools for peer-to-peer education.²⁴ Where well-designed, these tools may well make online instruction more effective and better organized than traditional ones.²⁵

Even if one concedes the theoretical superiority of face-to-face instruction due to its human dimension, the reality of teacher-student interaction is more modest, as we all know. Classes are often too crowded for meaningful interaction; teachers may not be gifted instructors or outstanding scholars. But the major problem is the economics of face-to-face education. Though due to competition the average income of lawyers is stagnant, at present, private law schools charge a tuition that amounts to nearly \$168 per lecture hour per student, not counting public and private support, and not including room and board.²⁶ These are stupendous prices, and they are rising. They are growing because costs are rising. As William Baumol and William Bowen analyzed, sectors with low productivity growth such as teaching rise in cost because incomes are determined by the faster productivity growth of the other sectors of the economy (“Baumol’s cost disease”).²⁷ And the competition among law schools for reputation and students raises the number of faculty and their bargaining strength for salary and teaching load, which provides another reason for costs to rise. The main way to stem these cost problems is to increase productivity. Yet realistically, this will not happen by making the traditional teaching staff work harder or longer. Alternatively, some savings might be achieved by resorting to part time faculty without tenure, benefits, or regular salary. Adjuncts lower the instructional cost of a course by 80%.²⁸ But the real way is not to solve the cost problem through a two tier system of labor, but by changing the capital/labor ratio, thus enabling the most qualified members of teaching staff to service more students. And this must be done without a significant

24. Liz Polding, *Delivering Blended Legal Learning by Open Source Methods*, J. INFO. L. & TECH. (2007), http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2007_1/polding/polding.pdf.

25. ABDUL PALIWALA, INFORMATION TECHNOLOGY IN LEGAL EDUCATION: A RESOURCE BOOK (1991); Rebecca Eynon, *The Use of ICTs for Teaching and Learning in Law Education: Some Innovators’ Perspectives*, WEB J. CURRENT LEGAL ISSUES (2006), <http://webjcli.ncl.ac.uk/2006/issue3/eynon3.html>.

26. Tuition at top law schools has reached \$42,000, and lecture requirements are 15,000 minutes per year by ABA standards.

27. James Heilbrun, *Baumol’s Cost Disease*, in A HANDBOOK OF CULTURAL ECONOMICS 91 (Ruth Towse ed., 2003).

28. Stephen R. Ruth et al., *E-Learning at a Crossroads—What Price Quality?*, EDUCAUSE Q., Spring 2007, at 32, available at <http://connect.educause.edu/Library/EDUCAUSE+Quarterly/ELearningataCrossroadsWha/40027>.

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lowering of the quality which would attend a mere enlargement of the class sizes.²⁹ This is the challenge.³⁰

This competition, and the expansion of knowledge, also weaken the cohesion of the faculty. Law faculty has become more research oriented and more specialized. Interdisciplinary areas of research raise the scope of academic exploration but also of centrifugalism. And as the law reaches into farther aspects of society and economy, the subject area becomes gigantic. Specialization is the result. It also widens the gap between the research oriented faculty and the skills-needy students who are called to finance the gap.

The traditional law school does not scale well, and accreditation standards restrict such scaling. But sooner or later someone will figure out how to create an alternative model that is attractive in educational and financial terms. This is likely to come from new for-profit institutions and from the more entrepreneurial law schools, especially second and third-tier private schools that are under the greatest threat. They will offer programs directly to students or to other law schools as wholesalers.³¹

What then will be the outcome? The debate about electronic versus physical education tends to dwell in stereotypes. Online education is either derided as a degree mill or celebrated as a laboratory of innovation.³² Similarly, the traditional setting is idealized either as a blossoming grove of academe, or pitied as a high cost fixed-facility legacy institution. Where does the truth, and the institutional equilibrium, lie? Probably in a mix of click and brick. This provides the tools for innovation, cost reduction, service to new constituencies, flexibility of schedule during each semester and over the course of study, and greater empowerment of students. The strongest comparative advantage for physical law school instruction lies

29. Chris Jones et al., *Networked Legal Learning: An Evaluation of the Student Learning Experience*, 15 INT'L REV. L. COMPUTERS & TECH. 317 (2001); Duncan G. LaBay & Clare L. Comm, *A Case Study Using Gap Analysis to Assess Distance Learning Versus Traditional Course Delivery*, 17 INT'L J. EDUC. MGMT. 312 (2003).

30. Stephen R. Ruth, *E-Learning—A Financial and Strategic Perspective*, EDUCAUSE Q., Winter 2006, at 22, available at <http://connect.educause.edu/Library/EDUCAUSE+Quarterly/ElearningAFinancialandStr/39962>; Robert H. Woods, "Order in the Virtual Law Classroom . . . Order in the Virtual Law Classroom"—A Closer Look at American Law Schools in Cyberspace: Constructing Multiple Instructional Strategies for Effective Internet-Based Legal Education, J. INFO. L. & TECH. (2001).

31. Peter Martin et al., *Cornell's Experience Running Online, Inter-School Courses—An FAQ*, 30 INT'L J. LEGAL EDUC. 70 (2005).

32. Thomas Clark, *Attitudes of Higher Education Faculty Toward Distance Education: A National Survey*, 7 AM. J. DISTANCE EDUC. 19 (1993).

not in the transmission of information or even of ideas—but this could be done online too—but in the mentoring, engaging, peering, and skill training. Clinical courses and small seminars are examples.³³ Effective Socratic teaching is another. The aura of quality of a school would be maintained through a small core of resident noted scholars and teachers whose words would be amplified and further distributed through electronic means. Surrounding them will be many imported courses by local part-time faculty,³⁴ distant specialists,³⁵ and global academic stars. Such faculty will be less institution-tied, and more in the nature of academic freelancers, with shifting teaching across institutions.

The law school's function will be to be the integrator of these different strands. In the past, law schools were pretty similar in structure, curriculum, faculty, student aspirations, and financial model (the differences were of quality, not of fundamentals, and probably seem greater from the inside than looking in). But in the future, law schools will become more differentiated along all of these dimensions—not just better or worse, but different.

The result will be a law school environment with fewer schools, lighter resident staffing, higher student count, greater specialization and differentiation, more electronic techniques, greater import and export of instruction, more legal programs aimed at non-lawyers (including to other countries),³⁶ a much greater role for for-profit institutions,³⁷ more public/for-profit collaborations,³⁸ and more international collaborations.³⁹

33. Abdul Paliwala, *The Technology of Clinical Legal Education*, 3 Y.B. L. COMPUTERS & TECH. 181 (1987).

34. Dan Carnevale, *For Online Adjuncts, a Seller's Market: Part-Time Professors, in Demand, Fill Many Distance-Education Faculties*, CHRON. HIGHER EDUC., Apr. 30, 2004, at A31.

35. Nancy Walters Coppola et al., *Becoming a Virtual Professor: Pedagogical Roles and Asynchronous Learning Networks*, 18 J. MGMT. INFO. SYSTEMS 169 (2002).

36. Scott Jaschik, *Legal Education at a Distance*, INSIDE HIGHER ED, Oct. 31, 2007, available at <http://www.insidehighered.com/news/2007/10/31/concord>; Marijk van der Wende, *The Role of US Higher Education in the Global E-Learning Market*, CENTER FOR STUD. IN HIGHER EDUC., Jan. 1, 2002, available at <http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1016&context=cshe>.

37. Colloquy Live, *Prospects for For-Profit Distance-Education Spinoffs*, CHRON. HIGHER EDUC., Dec. 13, 2005, available at <http://chronicle.com/colloquylive/2001/12/nyuonline>.

38. Tim Matthews et al., *e-Learning Risks: Why Universities Should NOT Go It Alone*, 10 ONLINE J. DISTANCE LEARNING ADMIN., Fall 2007, available at <http://www.westga.edu/~distance/ojdla/fall103/matthews103.htm>.

39. Paul Maharg & Antoinette Muntjewerff, *Through a Screen, Darkly: Electronic Legal Education in Europe*, 36 L. TCHR. 307 (2002).

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Of course, this will not take place overnight. People usually overestimate the change in the short term, but they also underestimate it for the long term. They recall that earlier warnings about the potential of television and computers⁴⁰ as a tool of higher education failed to materialize, and like to believe that even a vastly more effective technology will meet the same fate, forever. Yet, the fundamental forces at work cannot be ignored.

In making this argument it is easy to appear to be tarred as yet another dismal economist, or technological determinist, or both. It is easy to respond to the analysis with a ringing reaffirmation of the importance of quality personal education, academic and professional values, the historic role of education in personal growth, and the human need for free-wheeling exchange. To make such arguments feels good and gets acclaim as standing up for values, but all this is beside the point. The question is not whether universities and law schools are important to society, to knowledge, or to their members—they surely are—but rather whether the economic foundation of the present system can be maintained and sustained when electronic communication provides alternatives. These are the drivers of change. Research and teaching as activities will not be questioned—they will be more important than ever—but rather their present main instructional setting. We have come to equate legal education with traditional law schools. Not much longer.

40. See RUSSELL BURRIS & ROBERT E. KEETON, *TEACHING LAW WITH COMPUTERS: A COLLECTION OF ESSAYS* (1979); Robert Charles Clark, *The Rationale for Computer-Aided Instruction*, 33 J. LEGAL EDUC. 459 (1983); Peter Egri, *Computer Assisted Learning, Legal Expert Systems and Practical Legal Training*, 8 J. PROF. LEGAL EDUC. 1 (1990).

Second Panel: Deans

RICHARD A. MATASAR

DANIEL B. RODRIGUEZ

EDWARD RUBIN

STEVEN R. SMITH

