

LEGAL EDUCATION IN DIGITAL AGE: AN ANALYSIS

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Introduction

Legal Education is a branch of knowledge which cannot be compartmentalized as subjects are human beings with functional brains and not static machines .In the globalized digital age of today where press of a button adjusted to codes can alter the course of action, legal education has to address the multifaceted growth of law. It has to equip the budding lawyers with the clinical digital techniques in contrast to traditional deliverance. The future age is an electronic era and law has to be updated to handle the challenges as well as new laws have to be drafted to find procedural and investigative tools to educate them to find solutions in the jurisprudence sea of legal education . A lawyer with a multi-disciplined, multi- purpose education would be able to contribute to national development and social changes in a constructive way.

The **Computer Age** or **Digital Age**, is an idea that the current age will be characterized by the ability of individuals to transfer information freely, and to have instant access to knowledge that would have been impossible earlier.

The research paper focuses on the fact, whether the positive or negative vision of the digital future prevails will be determined, by current decisions and those made in the next few years in the halls of government and in corporate boardrooms. Research has contributed to the resolutions of several recent legislative and policy decisions in view of the increased invasion of technology & net over the print version. Future research needs to be designed with the public policy agenda in mind. The academic community has much to contribute to the debates over new developments in the digital age resulting in the emergence of cyber laws in combination and addition to earlier codified laws .The paper analyses the factors, reasons & problems related to jurisdiction in cyber crimes, fixing of liability to impose penalty and punishment, the investigative and procedural difficulties in handling and procuring evidence which is narrow, cumbersome, incompatible with new technology. Whether that role is ultimately fulfilled will depend on fresh, creative thinking and a firm commitment to move teaching, learning, and the university into the digital age.

Today's digital kids think of information and communications technology as something akin to oxygen: they expect it, it's what they breathe, and it's how

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they live. The researcher has enumerated few suggestions to address the evolving global phase of legal education in the digital era. Universities could shape online activities into socially contextualized learning environments in which students actively engage in the construction of their learning experience and immediately use their course content. An open, persistent system not bound by semesters or strict discipline borders could allow students to develop over time and track that development along several paths. This system could form the basis of a liberal education grounded in practice.

Education is moving into the digital age. Pedagogies have changed to engage the latest digital technologies. The methods of distribution are now a blend between face-to-face and some other combination of virtual interfaces. The content is moving from traditional text-based learning to text-plus-multimedia. The community is now involved in the development of content. The world of education is still in transition; the move to an all-digital environment will not be completed for some time to come. The cost of creating high-end multimedia content, although coming down, is still prohibitive for all but the very edge of the marketplace.

The digital age has brought profound change to academic law libraries. Numerous outside entities with which we work - accrediting agencies, publishers, other libraries, library organizations and consortia, information technology departments on campus and in legal education, to name a few - are also dealing with, and reacting to, the impact of digital technology from their perspectives. Academic law libraries cannot operate in a vacuum in responding to change, particularly if we want to master the future we envision rather than drift towards a future with no controls. Collaborations with these external entities, whose response to the digital challenge will greatly impact our futures, will enable us to influence their direction and achieve outcomes that best serve the academic law library and its place in legal education. The importance and necessity of these collaborations, therefore, prompt this scenario of the future.¹

Digital technology revolutionizes many of the ways we receive and use information every day. The availability of online resources has changed everything from hunting for a new house to reading the newspaper to purchasing plane tickets, and as a result has disrupted established structures (such as the real estate, news, and airline businesses). Telecommuting has become widespread. The market for popular music has transformed dramatically. Internet telephony presents a real challenge to established telecommunications companies. Millions of blogs, social networking sites, and interactive online games have created new modes for interaction and expression. In short, the advent of digital technology touches almost every aspect of modern life.² Perhaps no area holds more potential for such transformation than education. Many diverse and exciting initiatives demonstrate how rich sources of digital information could enhance the transfer of knowledge. Yet at the same time, the change in education arguably has been less radical, especially in

comparison to mundane endeavours such as selling a used bicycle or booking hotel rooms. There are many complex reasons for this slow pace of change, including lack of resources and resistance to new practices. As this white paper explains, however, among the most important obstacles to realizing the potential of digital technology in education are provisions of copyright law concerning the educational use of content, as well as the business and institutional structures shaped by that law.

Digital technology makes informative content easier to find, to access, to manipulate and remix, and to disseminate. All of these steps are central to teaching, scholarship, and study. Together, they constitute a dynamic process of digital learning.

As per ITAA 2008, Section 73 is given as follows:

[Section 73] Penalty for publishing electronic Signature Certificate false in certain particulars:

- (1) No person shall publish a Electronic Signature Certificate or otherwise make it available to any other person with the knowledge that:
 - (a) the Certifying Authority listed in the certificate has not issued it; or
 - (b) the subscriber listed in the certificate has not accepted it; or
 - (c) the certificate has been revoked or suspended, unless such publication is for the purpose of verifying a digital signature created prior to such suspension or revocation
- (2) Any person who contravenes the provisions of sub-section (1) shall be punished with imprisonment for a term which may extend to two years, or with fine which may extend to one lakh rupees, or with both.³

Meaning

The **Information Age**, also commonly known as the **Computer Age** or **Digital Age**, is an idea that the current age will be characterized by the ability of individuals to transfer information freely, and to have instant access to knowledge that would have been difficult or impossible to find previously. The idea is linked to the concept of a digital age or digital revolution, and carries the ramifications of a shift from traditional industry that the industrial revolution brought through industrialization, to an economy based on the manipulation of information, i.e., an information society.

The Information Age formed by capitalizing on the computer microminiaturization advances, with a transition spanning from the advent of the personal computer in the late 1970s to the internet's reaching a critical mass in the

early 1990s, and the adoption of such technology by the public in the two decades after 1990. Bringing about a fast evolution of technology in daily life, as well as of educational life style, the Information Age has allowed rapid global communications and networking to shape modern society. The digital age is started in second millenium, and it means that every company, shop, or bar, have at least one computer. When we say, this is age of...,first we think, theology of that age. Digital age is started,(digital photos, digital computers, digital books, digital airplanes...). The schools have digital structures,(on knowledge I mean), and we do not writing just on paper, we can write on computer, phones, PDA, or something like that. A new generations of cars have auto-control, when you are sleepy.

The Impact On Jobs And Income Distribution

The Information Age has impacted the workforce in several ways. First, it has created a situation in which workers who perform tasks which are easily automated are being forced to find work which involves tasks that are not easily automated. Second, workers are being forced to compete in a global job market. Lastly workers are being replaced by computers that can do the job more effectively and faster. This creates problems for workers in industrial societies. Jobs traditionally associated with the middle class (assembly line workers, data processors, foremen, and supervisors) are beginning to disappear, either through outsourcing or automation. Individuals who lose their jobs must either move up, joining a group of "mind workers" (engineers, attorneys, scientists, professors, executives, journalists, consultants), or settle for low-skill, low-wage service jobs.

The "mind workers" form about 20% of the workforce. They are able to compete successfully in the world market and command high wages. Conversely, production workers and service workers in industrialized nations are unable to compete with workers in developing countries and either lose their jobs through outsourcing or are forced to accept wage cuts. In addition, the internet makes it possible for workers in developing countries to provide in-person services and compete directly with their counterparts in other nations.

This has had several major consequences:

Growing income inequality in industrial countries

The polarization of jobs into relatively high-skill, high wage jobs and low-skill, low-wage jobs has led to a growing disparity between incomes of the rich and poor. The United States seems to have been more impacted than most countries; income inequality started to rise in the late 1970,'s, however the rate of increase rose sharply in the 21st century. Income inequality in the United States has now reached a level comparable to that found in South America.⁴

Teaching and learning in traditional schools, from kindergarten to graduate school, benefits from digital technology that enables new pedagogical methods and allows easy access to vast quantities of educational content. Examples of changes that capitalize on this potential include:

- A planned online network for high school history teachers, allowing them to share advice and classroom resources
- Classroom teaching enhanced with new media such as PowerPoint slides or video and audio clips
- Extension of the classroom dialogue through mechanisms such as e-mail or class blogs and wikis;
- Student authorship of diverse content beyond the traditional term paper and diorama, from video and audio to hyperlinked web pages.

The Digital Millennium Copyright Act

A further addition to rights holders arsenal is the ability to use technological mechanisms to prevent unauthorized copying of works. Such mechanisms are most widely known as Digital Rights Management systems though they are also sometimes called Technological Protection Measures or copy prevention technology. By whatever name, DRM systems are encoded into digital content by a variety of means, such as encryption or watermarking, so that users are incapable of accessing or using the content in a manner that the rights holder wishes to prevent. Sometimes, as in the case with most commercially distributed DVDs, the DRM system simply aims to prevent all copying indiscriminately.

Copyright law reinforces the power of DRM systems through the Digital Millennium Copyright Act, found in chapter 12 of the statute. In general, the DMCA seeks to forbid the circumvention of a DRM system defined as a technological measure that effectively controls access to a work protected by copyright law. It also outlaws development or trafficking of any DRM circumvention device or technology.

There are very limited exceptions to liability under the DMCA, but notably they do not include any defense based on an assertion of applicable exceptions under copyright law, such as fair use. Defendants who have a fair use right to reproduce content do not thereby have a defense if they must circumvent a DRM system to gain access to that content. There is also an exemption from civil damages for certain defined educational institutions under section 1203(c)(5), but it is available only if the defendant accused of circumvention sustains the burden of proving, and the court finds, that the library, archives, educational institution, or public broadcasting entity was not aware and had no reason to believe that its acts constituted a violation. It would be extremely difficult for any responsible educational institution to demonstrate such ignorance of a well-known legal restriction, and individuals are not eligible for the same lenience. Consequently, educators are potentially vulnerable to civil or even criminal penalties if they interfere with whatever technological restrictions rightsholders choose to impose on the use of content.

DVDs in Film Studies Classes

A recent addition to the academy, film studies applies the techniques of established disciplines, including psychoanalysis, literary studies, and linguistics, to examine the art of cinema. Though a small group of intellectuals recognized the significance of film as a medium for artistic expression in the early twentieth century, film studies did not surface as an accepted area of scholarship until the 1960s. In the decades since, the popularity of film studies has spread dramatically, so that dozens of colleges and universities now offer undergraduate and graduate degree programs in film studies, and many more offer courses in the field. Technological advancement, including development of the DVD, has fueled this growth. And with the emergence of cinema as a crucial element of modern culture, film studies is certain to continue to develop as an important area of scholarly endeavor.

The ability of teachers and students to view and critique excerpts of film essentially, movie clips is a fundamental building block of serious study in this area. One of the most common means for professors to teach students about film is to show a series of excerpts from different movies that illustrate a common point. For example, a professor may wish to screen clips from different films that use a certain camera angle to produce a particular visual effect. Film studies professors also present and discuss relevant clips from assigned works during lecture, just as literature professors examine novels in class by reading important passages out loud.

Creating compilations of such excerpts (or, as they are sometimes called in a throwback to older technology, clip reels should be a relatively straightforward process using DVDs. Digital technology should also enhance the ability for students to have access to clips for homework or other study outside of class, either online or through distributed DVDs. In fact, our research and interviews with film studies professors demonstrates that, for a combination of technological and legal reasons, the opposite has occurred. The DRM systems used on DVDs, and the restrictions of the DMCA, interfere with these educational uses of film content. We have found that many film studies professors nonetheless reap the benefits of digital technology for their teaching but only by bypassing DRM systems in likely violation of copyright law.

Rightsholders almost always distribute film content on DVDs with DRM systems and a number of other technological limitations embedded in the discs. These technological barriers are reinforced by legal ones. As discussed above in section 1.2.3, the DMCA outlaws circumvention of DRM systems and the creation or distribution of circumvention tools. Even though showing a clip of a movie in class is unquestionably permissible, under both face-to-face teaching exceptions (see section 3.1.1) and the fair use defense (see section 3.2), the DMCA does not recognize any comparable exceptions. Professors who circumvent the DRM systems in DVDs to enable such uses thereby expose themselves to civil or even criminal penalties.

The most significant DRM barrier is CSS. Commercially available DVDs are encoded in CSS, an encryption and authentication scheme that prevents copying of video files directly from DVDs. CSS does not merely block DVD copying. Rather, CSS is an encryption system that scrambles DVD content and restricts playback to licensed devices equipped with keys for decoding the scrambled content. This encryption, combined with the terms of the CSS license, prevents copying by regulating the devices that play DVDs. Put differently, CSS restricts *access* to DVDs as well as duplication of them.

Clips taken from videotape or other analog formats are not adequate substitutes for the educational needs of these professors. Most obviously, the resultant copies are lower in quality than the originals (which most likely were already inferior to DVDs of the same film). A sophisticated analysis of cinema requires access to a version of the film in excellent quality, not the grainy images found on bootleg videos. Tape also must be copied in real time, making the creation of larger clip reels unrealistic. Finally, some analog formats do not lend themselves to creation of clip compilations whatsoever. For example, most professors do not have access to the equipment necessary to duplicate and splice clips from 16-mm film.

As a supplement to presenting segments of works in class, film studies professors occasionally distribute excerpts of works to students as part of the course curriculum either by handing out physical copies, or by posting content on an intranet. Professors who wish to distribute movie clips online encounter issues similar to those faced when distributing physical copies of content. Posting analog content to the internet (or an on-campus intranet) is a costly and time-consuming proposal, since it is necessary to digitize analog content before putting it online. This conversion reduces the quality of formats such as 16-mm film, since some resolution is lost during digitization. Clips from DVDs, in contrast, are easily compiled and posted to with the use of software tools such as Fast DVD Copy 4 and Cinematize. Unsurprisingly, the majority of film studies professors who post content online derive that content from DVDs.

Obstacles To Digital Learning

• Uncertain or Unfavourable Copyright Law

Lawyers tend to look first to legal regimes when surveying the landscape of a public policy issue. At times, this is the wrong place to begin, because economic or social forces play a greater role in shaping practices. In studying educational use of content, however, the law is the natural starting point: all of those other forces operate in the shadow of copyright law. Copyright single-handedly creates the monopolies that underpin economic interests in this area, and it profoundly shapes norms and institutional practices concerning the use of content.

The next several subsections review and analyze exceptions to copyright that may protect uses of content for digital learning. It finds that they are

frequently narrow, cumbersome, incompatible with new technology, or vague. The penultimate subsection discusses the potential consequences for educators whose unauthorized use of content is found to fall outside of these exceptions: a potential infringement suit, steep legal fees, and substantial damages. The final subsection briefly considers different treatments of these legal issues in other selected countries outside the United States.

• The Fair Use Doctrine

If the educational use exceptions are excessively specific and narrow, the fair use doctrine presents exactly the opposite problem. The fair use doctrine has evolved through over a century and a half of judicial decisions as a defense to copyright liability governed by a very general set of standards. The only way to predict whether the doctrine will immunize a particular use from liability is to analogize the facts at hand to those of other cases that have come before the courts in the past. This open-ended structure gives the fair use doctrine important flexibility to deal with myriad situations left uncovered by the various particularized exceptions to infringement, such as educational use exceptions that fail to anticipate new technology. At the same time, however, this uncertainty frustrates institutional educational users who feel pressure to establish clear rules for educators, librarians, and students concerning the legal use of copyrighted works.

The essence of the current fair use doctrine dates back at least to *Folsom v. Marsh*, an 1841 decision by Justice Joseph Story. The doctrine continued to evolve for over a century. In its 1976 overhaul of the Copyright Act, Congress codified the fair use doctrine for the first time, without modifying the doctrine or removing from the judiciary the power to determine its boundaries. The current fair use provision, found in section 107 of the statute, reads:

the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include:

1. the purpose and character of the use, including whether such use is of a commercial nature or is for non profit educational purposes;
2. the nature of the copyrighted work;
3. the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
4. the effect of the use upon the potential market for or value of the copyrighted work.

The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.

Since the 1976 codification, courts have continued to shape the fair use doctrine by applying its standards to particular situations. While most courts analyzing fair use review each of the four enumerated factors in reaching their decisions, these factors are not a mechanical test that can be applied with precision. The evolution of this defense is an ongoing project.

• **Statutory Damages and Legal Fees**

Even where content users have a good-faith belief that their conduct is permitted under exceptions for educational use or fair use, every such use carries at least a small risk of litigation. A successful defense still entails significant legal fees. A report by the American Intellectual Property Law Association estimates that the average cost to defend a copyright case is just under one million dollars. While some education-related cases surely would require less than this average amount, this is an especially expensive type of litigation across the board. Statutory damages, like actual damages, aim to reduce incentives to violate copyright law, making the expected cost of infringing action no less than the expected cost of obtaining authorization. However, statutory damages often explicitly and purposefully go much higher than actual damages. Under some circumstances common in educational settings, especially where a teacher draws content from multiple works, maximum statutory damages for infringements can reach extremely high levels. Nonprofit educational enterprises can seldom risk such large damages on top of substantial legal fees. In addition, a number of factors make statutory damages awards unpredictable, further complicating educational users calculus of risk.

Congress has articulated that statutory damages serve a number of purposes not served by actual damages. First, the law allows awards in excess of actual proven damages because actual damages are considered inadequate in light of the difficulty of detecting copyright violations and the burden and expense of calculating and proving actual damages. More recently, Congress has also indicated that greater damage awards may deter large-scale piracy enabled by new copying technologies.

In pertinent part, the current statute (section 504(c)(1) of the Copyright Act) reads:

The copyright owner may elect, at any time before final judgment is rendered, to recover, instead of actual damages and profits, an award of statutory damages for all infringements involved in the action, with respect to any one work in a sum of not less than \$750 or more than \$30,000 as the court considers just. For the purposes of this subsection, all the parts of a compilation or derivative work constitute one work.

The section further provides for the increase of the statutory maximum to up to \$100,000 per infringed work if the defendant is shown to have acted willfully, or down to \$200 per infringed work for innocent infringements. The law requires that

minimum damages be awarded even in cases where infringers reap no profit from their activities and cause no significant losses to the plaintiff. No absolute maximum applies other than the per-work statutory maximum. As such, an educator found to have infringed five works even innocently would be required to pay a minimum of \$1000 in statutory damages, and a maximum of \$250,000. Thus, even a noncommercial use of copyrighted content for educational purposes could yield a statutory damages award of tens of thousands of dollars or even more.

Of primary importance to educational users, the next portion of the provision on statutory damages, section 504(c)(2), states that a court may not award statutory damages in any case where an infringer believed and had reasonable grounds for believing that his or her use of the copyrighted work constituted a fair use, if the infringer was:

- an employee or agent of a nonprofit educational institution, library, or archives acting within the scope of his or her employment who, or such institution, library, or archives itself, which infringed by reproducing the work in copies or phonorecords; or
- a public broadcasting entity who, as a regular part of the nonprofit activities of a public broadcasting entity infringed by performing a published nondramatic literary work or by reproducing a transmission program embodying a performance of such a work.

A great number of educational users of content fall outside of these narrowly drawn categories, however, including those not affiliated with such traditional institutions, or those who used types of content not covered by the exception. (The public broadcasting provision is particularly limited, and WGBH reports that it approaches fair use with the assumption that damages could be substantial.) Additionally, proving reasonable grounds for the belief in fair use may be difficult. And, although the issue has never arisen in a reported opinion, the exception does not mention good faith belief of non-infringement under any other exceptions; educators with a good-faith belief that their activity is privileged under the classroom use exception or the TEACH Act are not necessarily protected from statutory damages in the event that their judgment is incorrect.

In addition to their possible size, several circumstances make statutory damages unpredictable as well. For one, statutory damage awards are largely shielded from appellate review. Furthermore, the Supreme Court ruled in 1998 that plaintiffs have a right to seek a jury trial on the issue of statutory damages, rather than having them set by a judge. Thus, as lay juries calculate statutory damages more often, predictability can be expected to decrease even further and there is reason to believe that juries may grant larger statutory damages awards. Finally, although some courts recognize rough rules that statutory damages should be two or three times provable actual damages, these rules diverge between courts; in any event, such unofficial benchmarks are unlikely to be included in jury instructions.

As noted above, there are virtually no precedents in which educators themselves were defendants, so it is difficult to predict whether courts would award high statutory damages in such a case. There is little question, based on statements by our workshop participants and others, that educators fear such an outcome.

Even if the actual risks of being sued and of losing are small, those risks are multiplied by the potential damages. Where the expected cost of relying unsuccessfully on legal provisions for fair use or educational use including both legal fees and damages exceeds the cost of a license, educational actors will prefer to rely upon licensing over their good faith assessments of the law. As a result, even where most observers would conclude that an educational use of content fell well within the bounds of fair use or the TEACH Act, educators may shrink from relying on their protection because of the small risk of very large statutory damages.

Education and Copyright Law in Non-U.S. Systems

Most of the discussion of legal issues thus far has focused on the copyright law of the United States. While various international agreements over the last half century have moved various national intellectual property laws closer to one another, there are still very significant differences between U.S. law and law in other countries. At least two differences are worthy of brief mention.

First, most other countries do not have a fair use doctrine at all. Britain and some Commonwealth countries with roots in British law embrace a related doctrine called fair dealing, but its scope is narrower than fair use. Second, a number of other nations have resisted adoption of statutes equivalent to the DMCA, and in some cases those that have enacted some form of anticircumvention legislation have included more breathing room for educational uses of content.

India: Dr. Mira Sundara Rajan of the University of British Columbia wrote a paper] examining the evolution of copyright law in India, which has various permissive provisions motivated in large part by India's status as a rapidly developing nation. Digital learning carries particular urgency for a country of one billion persons with a shortage of educational resources. India's copyright statute thus includes provisions for compulsory licensing and fair dealing that are more lenient towards educators than comparable aspects of U.S. law, especially when it comes to importing educational content from more industrially advanced nations. For example, detailed and powerful provisions allow for the translation of works into Indian languages that are not in general use in a developed country if no one has prepared such a translation within one year of first publication. Works to be used in systematic instructional activities can be reproduced if they are either unavailable in India or more expensive than comparable works in India. An elaborate set of fair dealing provisions for computer software allows copying of programs in order to study them. As these examples show, Indian law has allowed significant educational uses of content.

The future of this orientation in Indian law is in doubt, however. The government is currently engaged in an overhaul of the copyright statute. The U.S. and other industrialized nations are exerting pressure for India to further harmonize its law with international trends. Possible changes under review include modifying or abandoning the software fair dealing rules as well as the possible enactment of the country's first law concerning circumvention of DRM systems, comparable to the DMCA. In general, the trajectory of India's copyright law may create new obstacles to digital learning there.⁵

Internet and Globalization

The two key forces having a deep impact on society are uniformly recognized as being the Internet, leading to the digital revolution, and the globalization, with its deep impact on legal information. These two forces can be studied separately, but they are intrinsically interwoven into the work of law librarians and access to legal information.

The Internet and digital revolution have led both to an information overload, with information coming from many different directions, and the simultaneous increased speed of information, where almost instantaneous responses are expected from the easy flow of information. The context of legal research today presents us with an inflation of information, augmented by an inflation of legal issues. Law reflects societal concerns, and new areas of regulation have appeared, as well as new substantive law areas.

Environmental law, bio-ethics, information technology and Internet-related issues are just a few. These new areas appear in a domestic context. In addition, almost every domestic law area now has an international component.

Globalization has been defined as the process of integrating nations and peoples—politically, economically, and culturally—into a larger community. The focus is not on nations but on the entire globe.⁶ This complex, controversial, and synergistic process combines technology in communications and transportation with the deregulation of markets and open borders to lead to vastly expanded flows of people, money, goods, services, and information.⁷ The dark side of globalization produces economic and social dislocations and arouses public concerns over job security, concentration of economic power, harm to the environment, danger to public health and safety and the disintegration of indigenous cultures.⁸ In the information field, we can also say that it has created a digital divide, between those who have access to the Internet, and those who do not the world is shrinking, and it is now difficult to distinguish between domestic and foreign and international law in a global setting. We need to look beyond national jurisdiction. New terms have been coined, such as Transnational law,⁹ Global law, and there is an international element to most domestic law subjects, e.g. international trade law, the international law of human rights, environment, criminal law, etc. The law of foreign countries has to

be studied. Every important domestic subject—securities regulation, criminal law, procedure, environmental law, family law, etc.—has an international dimension. The U.S. Supreme Court has taken foreign and international law into consideration in several decisions.¹⁰ Interestingly, comments on hot topics like the famous debate between U.S. Justices Breyer and Scalia on the use of foreign law by U.S. courts, often take the form of blogs.¹¹

Globalization has permeated and deeply influenced the legal literature. There has been an explosion in the legal literature in international and foreign law, which is well documented in indexes and catalogs. I have observed it personally over the years. My career has been affected in a deep way by the many changes in the legal information environment. I did much of my professional career in legal information in the print world, and I evolved as the world of legal information started to change, first in an evolution, and now as a revolution. I started my career as a law graduate from France and the United States,¹² following studies in Germany and a university degree in German. After receiving a Master's in Law Librarianship from the University of Denver, I started my professional career at Duke Law School as a reference librarian, totally in the print world. During my time at Duke, the first word processors came into being, and the first Lexis and then Westlaw dedicated terminals were introduced into the law school. Among the new growing literature worldwide, one can note the growth of textbooks explaining U.S. law to international law students, and introductory books explaining foreign law to researchers from a different country or legal tradition.¹³ There are many such titles, such as comparative law textbooks and casebooks, and many new books on specialized areas of comparative law, rather than books general in scope. A new online service, *International Law in Domestic Courts*¹⁴ is emblematic of the transnational law trend. The publishers send out reporters in many countries of the world, who suggest cases, and write annotations on the cases selected. This service provides great empirical data on how national judges apply international law norms.

Impact of Internet on Legal Research—A CRITICAL LOOK

In spite of the huge technological advances, access to information is different from use as a reliable source. There are both positives and negatives. A huge amount of information is accessible, in an easy and convenient way, but it is unfiltered, and on the web currently, there is no organized control of information, it is hard to know what you are missing, and if the information you find is accurate and authoritative,¹⁵ and the most relevant to your specific needs. Researchers want easy, convenient access to the most reliable materials that directly relate to their research interests, which is the reason library indexing and classification tools and systems have been designed in the first place, so that researchers have precision in their research. These tools are lost in full text searching.¹⁶ Full text online searching can yield a wealth of information. Often lacking is the proper context and direction to ensure the mass of information is

highly relevant to the matter at hand. This problem can be met by resorting to web guides, or background texts online or in print, which provide analysis and summaries. In the law field in the United States, the reliance on Internet search engines has led to the loss of a lot of sophisticated indexing tools, such as subject and digest keyword indexing, the elaborate system created by West and used since the end of the 19th century.¹⁷ Many commentators have written on comparing free text searching versus classified arrangement and indexes. In general, free-text works best for factual research, but not always with the best results. Even Lexis came out with its own headnotes and classification several years ago, after starting as a pure full text database. Also, for the general public, there are some limitations to getting the plain text of the law. How much can one understand the law by looking at a text? If no context is provided, it may be harder to understand the issues, the procedure, etc., which are provided in a commercial system such as West, with headnotes and annotations. The greatest danger is for non professionals who get the letter of the law, but not the context. The Internet makes legal information much more accessible to the public. But, it is not clear that the greater accessibility makes the law more understandable, because it may lack a context. People can misinterpret the text of the law, unless there are disclaimers. It may also put a greater burden on the legal profession to explain the law. So, what is there to do?

In evaluating a web source, the following questions need to be asked and answered with some confidence. What is the source? Is this source reliable? Is it up-to-date? Is this the official, final version of a text? Can you cite this to a court?¹⁸ For research purposes, it is important to strike a balance between electronic and print sources, and know the strengths and weaknesses of each.¹⁹ To make some sense out of the mass of information provided on the Internet, a good way to manage legal information on the Internet is to start with reputable web sites. For the United States, here are a few good and free commercial sites: Findlaw,²⁰ and LexisOne,²¹ are free comprehensive sites on U.S. law (respectively belonging to Westlaw and Lexis, the premium fee-based services), Law.com²² is a leading legal news and information network for attorneys and other legal professionals. LLRX²³ is geared to legal information professionals. An efficient approach in dealing with information overload and unfiltered information while doing legal research, is to start with authoritative research guides on the web. The following have emerged as great starting points for legal research on a worldwide scope: *Law Library of Congress Guide to Law Online*,²⁴ and the *Global Legal Information Network (GLIN)*.²⁵ The American Society of International Law web site has a Research part.²⁶ Two services of note, which annotate new web sites of interest, and classify them, are *INTUTE: Law*²⁷ and *InSite*.²⁸ An example of a collaborative search engine application is the new Cornell Law Library's new *Legal Research Engine*, which helps users find authoritative online legal research guides on every subject, by searching about twenty different web sites.²⁹ Finally, two general indexes with full text links, *Current Cites*,³⁰ and *Resourcesshelf*,³¹ are useful current awareness tools, as well as *First Monday*.³²

One of the favorite tools to find books by subject or keyword, in any language, is Worldcat. It is a wide ranging union catalog, and, since the summer of 2006, it became available for free searching by anyone. Its combined holdings of thousands of libraries worldwide make it particularly valuable. It includes all 70-plus million records in the database, with an easy-to-use interface.³³ So, if you want to find books in English on French Law starting with the most recent ones, you can limit your search by language and date.

New Roles for Librarians in the Digital Age

In this rapidly evolving technological environment, and in the face of constant change, what are the new roles for librarians? Technology does not replace human expertise, and law librarians are called upon to provide guidance in a pro active way, reaching out to their audience, since the audience may not go to them. The focus here is on law librarians, not libraries. But a few thoughts are in order first on the future of law libraries. Even though their demise has been proclaimed many times, it may be based on the erroneous assumption that libraries are warehouses of books. Libraries are physical buildings that house library materials, but they do so in an organized fashion, and providing classified access to library materials. ⁹² A library in its fullest sense is more than a building, it is a place where people are served and where people are not only encouraged to interact with the information they are seeking, but are helped and guided in their research. ⁹³ How then will law librarians cope with the information overflow and provide guidance in a way that meets the needs of researchers, whether they come to the physical library, or directly through the library web site, or other distant technologies?

New roles emerge for librarians who are needed to evaluate the quality of information; teach legal research methodology; and be seen as core participants in the mission of their institutions. This is a tall order, because at the same time they need to keep up with the breakneck pace of technology, and adjust to the new information seeking and usage behaviors of students, faculty, judges and lawyers.

Conclusion And Suggestions

Information reliability, authenticity, precision, relevance, accuracy, version control. The challenges posed by digital libraries are many. The long term consequences of the digital world are unknown. There is so much information available, but without any context, which raises educational issues. In the law field, it is not only a matter of digital competence, but also of legal consequence . Some as yet unanswered questions are whose responsibility is it to train the public, and whether there will a growing demand.

The recent development in the U.S., to add a legal research test on the bar exam, is of interest to the whole world, because it signifies the importance of a sound legal research training to the competent practice of law. It is an amazing

time to be a law librarian, and an information specialist. It is also an amazing time to be able to connect with so many colleagues from all over the world, and help one another. It makes us stronger as a profession, and more effective in communicating our value to the decision-makers in our institutions.³⁴ What greater pleasure than to share what we know to foster knowledge and scholarship, and be both a great fan of innovation, and a guardian of digital records for the long term future. It is possible to embrace the information revolution, while keeping the tradition of service and quality of information that has been the trademark of libraries.

At a time when researchers are still sorting out the complex relationship between adolescents and the mass media, the entire nature of the media system is undergoing dramatic change. The explosive growth of the Internet is ushering in a new digital media culture. Youth are embracing the new technologies much more rapidly than adults. In addition, because of their increased spending power, youth have become a valuable target market for advertisers. These trends have spurred the proliferation of Web sites and other forms of new-media content specifically designed for teens and children. The burgeoning digital marketplace has spawned a new generation of market research companies, and market research on children and youth is outpacing academic research on youth and the newer media. The emergence of this new media culture holds both promise and peril for youth. Whether the positive or negative vision of the digital future prevails will be determined, in large part, by decisions being made now and in the next few years in the halls of government and in corporate boardrooms. Research has contributed to the resolutions of several recent legislative and policy decisions in areas including television violence and the V-chip, children's educational television programming, and privacy and marketing to children on the Web. Future research needs to be designed with the public policy agenda in mind. The academic community has much to contribute to the debates over new developments in the digital age.

Endnotes

1. http://www.aallnet.org/Archived/Leadership_Governance/committees/scenario10.html
2. <http://cyber.law.harvard.edu/media/files/copyrightandeducation.html>
3. http://220.227.161.86/17796IT_ACT_2008.pdf
4. http://en.wikipedia.org/wiki/Digital_Age#Digital_Age
5. <http://cyber.law.harvard.edu/media/files/copyrightandeducation.html>
6. See the definition in *Encyclopedia of American Foreign Policy* (2002).
7. *Id.*

8. *Id.*
9. The history of the term “transnational” is retraced in *Germain’s Transnational Law Research* Ch. I, section 1.01.3 (1991- . Looseleaf). The term is often attributed to Philip Jessup in his book *Transnational Law* (1956), but the first author to use it was actually Gustav Walker, an Austrian law professor, in 1934, and then Ernst Rabel in *The Conflict of Laws: A Comparative Study* (1945).
10. See Sir Basil Markesinis, *Judicial Recourse to Foreign Law: A New Source of Inspiration?* (2006); On the debate in the U.S.A., see Sir Basil Markesinis, “National Sufficiency or Intellectual Arrogance? The Current Attitude of American Courts towards Foreign Law, ” 65 *Cambridge Law Journal* 301 (2006); “Symposium: “Outsourcing Authority?” Citation to Foreign Court Precedent in Domestic Jurisprudence: *Aristotle, Cicero and Cardozo: A Perspective on External Law,*” 69 *Alb. L. Rev.* 645 (2006).
11. See, for instance, Michael C. Dorf, “The Use of Foreign Law in American Constitutional Interpretation: A Revealing Colloquy Between Justices Scalia and Breyer,” <http://writ.findlaw.com/dorf/20050119.html> (Jan. 19, 2005).
12. University of Paris XII, France, and Louisiana State University Law School, U.S.A..
13. A small sampling: Kenneth L. Port & Gerald Paul McAlinn. *Comparative Law : Law and the Legal Process in Japan*. Durham, N.C.: Carolina Academic Press, 2003. Herbert Hausmaninger. *The Austrian Legal System* . 2d ed. The Hague ; Boston : Kluwer Law International ; Wien: Manz, 2000. George P. Fletcher and Steve Sheppard. *American Law in a Global Context*. Oxford ; New York : Oxford University Press, 2005.
14. Oxford University Press. *International Law in Domestic Courts* (ILDC) is described as an online database containing domestic cases in international law from over 65 jurisdictions, featuring the full-text of judgments in their original language, translations of key passages of non-English judgments into English, and expert commentary, going back to 2000.
15. See *infra*, Section C, on “Authenticity of Official Legal Digital Sources.”
16. Richard Leiter, “Musings on the Future of Law Libraries,” 26 *legal information alert* 7-8 (Jan. 2007).
17. For a good history, see Robert Berring, “Legal Research and Legal Concepts: Where Form Molds Substance,” 75 *California Law Review* 5 (1987). See also Richard A. Danner, “Legal Information and the Development of American Law: Writings on the Form and Structure of the Published Law” 99 *Law Library Journal* (forthcoming 2007).

18. For some tips, see Doyle, Tony, & John L. Hammond, "Net Cred: Evaluating the Internet as a Research Source," *34 Reference Services Review* 56-70 (2006); Vaughan, C. Judd, Lucy I. Farrow, & Betty J. Tims, "Evaluating Public Web Site Information: A Process and an Instrument," *34 Reference Services Review* 12-32 (2006).
19. Anne V. Ellis, "The Joy of Paper and Ink," *Legal Times* (July 17, 2006). http://west.thomson.com/pdf/librarian/Ellis_Legal_Times071706.pdf
20. www.findlaw.com
21. www.lexisone.com
22. www.law.com
23. <http://www.llrx.com/>
24. Annotated guide covering U.S., international areas, and individual countries <http://www.loc.gov/law/guide/index.html>, *The Guide to Law Online*, prepared by the U.S. Law Library of Congress Public Services Division, is an annotated guide to sources of information on government and law available online. It includes selected links to useful and reliable sites for legal information. International and Multinational Nations of the World.
25. Public database of laws, regulations, judicial decisions, and other complementary legal sources contributed by governmental agencies and international organizations <http://www.glin.gov/>
26. <http://www.asil.org/resources/index.html>. An excellent guide to authoritative web sites and helpful research guides to international law on the Internet, including a database, Electronic Information System for International Law (EISIL).
27. <http://www.intute.ac.uk/socialsciences/law/>. The service identifies and evaluates legal resource sites offering primary and secondary materials and other items of legal interest. <http://www.intute.ac.uk/socialsciences/law/>. The service identifies and evaluates legal resource sites offering primary and secondary materials and other items of legal interest.
28. <http://library.lawschool.cornell.edu/RESOURCES/insite.htm>. The service annotates new law related web sites.
29. The twenty different web sites either publish guides, or index and link to guides.
<http://library.lawschool.cornell.edu/guides/researchengine.asp>
30. www.lists.webjunction.org/currentcites. A monthly selection of annotated citations of current literature in information technology.

31. <http://www.resourceshelf.com>. A web site run by librarians who find useful resources.
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33. WorldCat.org
34. http://wiki.answers.com/Q/What_is_the_definition_of_Digital_Age.