INTELLECTUAL PROPERTY LAW CONFERS RIGHTS IN RESPECT OF ONLINE DISTANCE EDUCATION, YET MOST LEARNING RESOURCES ARE STILL FREE - TRUTH OR FICTION?

By

BRUCE L. MANN

Memorial University, Faculty of Education, St. John's, NF Canada.

ABSTRACT

Educational technologists might well describe online distance education as 'a series of instructional events over the Internet that find their expression as learning events in a student'. As a legal construct however, 'online distance education' is simply 'the intellectual property of its owner'. This description is too simplistic for educational technologists, however for two reasons. First there can be no such thing as 'typical intellectual property ownership in online distance education', because there is no such thing as 'the typical distance education course'. No single law or appellate court decision can adequately protect at once the online course and the blended course, or the stand-alone course and the Web course management system. A second, related reason why intellectual property ownership is too simplistic is that most of today's online courses have multiple creators, each creator making a different original contribution to the course, each contribution being afforded a different type of legal protection within a jurisdiction. Ownership complexity rises with the number of contributors as well as the different types of legal protection available in the jurisdiction. This paper attempts to reconcile ongoing political rhetoric over everyone's right to an education with recent leaks in the media about the increasing likelihood of a global lock-down of intellectual property that could criminalize contemporary online distance education for every user.

Keywords: Intellectual Property, Distance Education, Instructional Design.

INTRODUCTION

Legal Rhetoric In Education

The rhetoric begins at the international level. The Universal Declaration of Human Rights (1948) states that everyone has the right to an education, and that higher education should be accessible to everyone based on merit. The Office of the High Commissioner for Human Rights (2007) states that "Higher education shall be made equally accessible to all, on the basis of capacity, by every appropriate means, and in particular by the progressive introduction of free education. The European Court of Human Rights (2003) and the Human Rights Act (1998) both state that no person shall be denied the right to an education with member states respecting the right of parents to ensure teaching in conformity with their own religious and philosophical convictions. The purpose of the very first copyright act, the Statute of Anne, was intended as 'an Act for the encouragement of learning' (Tallmo, 2009).

Terms such as 'teachers' and 'learning' also figure prominently in the World Summit on the Information Society (2003), with eleven sections in the document dedicated to education, teachers, trainers, learners and content creators, to play an active role in promoting the Information Society, particularly in least-developed countries. Similar contributions to the Tunis Agenda (2005) acknowledges the need for specialized training for public-sector employees, for ICT applications and content aims at ICT integration into education, and the need for local initiatives to deliver ICT services in education. The Tunis Agenda also shows a commitment to lifelong and distance learning, to build ICT capacity for youth, older persons, women, indigenous peoples, people with disabilities, and remote and rural

communities. ICT education and training is encouraged in developing countries by establishing national strategies for ICT integration in education and workforce development and dedicating appropriate resources.

Rhetoric in Distance Education

Distance education rhetoric is evident at local levels as well, most frequently manifested in 'the public interest' intellectual property. The public interest in intellectual property reflects a growing concern over digital policy in recent years, as copyright, net neutrality, privacy, and other Internet issues move onto the government agendae in many countries around the world. This is due in large part to the importance of information in the digital age, and the complexity in which it can be presented. It also reflects an intensified struggle over access and use of information, and even a strong lobby against intellectual property law (Martin, 1998).

The public interest is often discussed in contrast to works whose use is restricted by copyright, or not discussed at all. Until recently there has been little discussion in Britain to compare with Canadian and U.S. debates as to whether the rules on permitted acts merely provide defenses to claims of infringement or are free-standing public rights (MacQueen, Waelde & Laurie, 2007). From the public interest perspective, citizens have a moral right to experience educational works. The 'public' comprises the general population of citizens who patronize universities and colleges through their taxes or donations to support higher education, and who from time-to-time, may wish to educate themselves without paying more than once for the privilege. This is the mandate of the public domain, open source and open access educational websites and portals, and what is known in law as 'public interest'. Public interest is changing how some universities, colleges, and training organizations perceive the public. Consider for example, the OpenLearn website in the UK (2009) that affords free access to course materials to the general public from The Open University. 'LearningSpace' on the OpenLearn website, is accessible to anyone who wants to learn, whatever their educational need and experience. BBC Training & Development also offers free online modules and guides that originally designed for BBC staff and are primarily aimed at anyone who is working for, with or alongside BBC Training & Development (2009). Elsewhere in Europe there is the Foundation for the European Knowledge Pool, or ARIADNE (2009). Similarly the University of Kansas (KU) in the U.S., which in June 2009 became the first public university in the U.S. to adopt an "open access" policy that made its faculty's scholarly journal articles available free online. The faculty-initiated policy at KU, approved by the Chancellor, permitted open access to digital copies of all articles produced by the university's professors housed in an existing digital repository for scholarly work created by KU faculty and staff. The faculty-initiated policy, approved by the Chancellor, allowed for digital copies of all articles produced by the university's professors to be housed in an existing digital repository for scholarly work created by KU faculty and staff. This decision aligned KU with three of major private universities in the U.S. - Harvard, Stanford, and the Massachusetts Institute of Technology, which have similar policies in place.

Against IP Law

In some circles private citizens have developed strategies against strong intellectual property laws, including: civil disobedience, promotion of non-owned information, and fostering of a more cooperative society. A strong alternative argument to intellectual property protection is that intellectual products not be owned at all, or at least partially owned, as the case with most everyday language. Consider for example, the impact that public interest has had recently in Canada. In 2007 with the federal government expected to introduce new copyright reform within a matter of days, Law Professor Michael Geist launched a 'Fair Copyright for Canada' Facebook group to educate the public about an important issue. He sent invitations to a hundred or so Facebook friends and seeded the group with links to a few relevant websites. Within hours, the group grew to a thousand members. One week in, and there were 10,000 members. Two weeks in, and there were over 25,000 members with a private citizen joining the group every 30 seconds. One month later, the group had over 35,000 members and had succeeded in gaining the

government's attention, as it delayed the introduction of a U.S.-style DMCA in Canada (Geist, July 2009).

Students and the Paying Public

Students and the paying public see online distance education as a huge public domain of knowledge that contains all the world's variety of its knowledge, cultures, languages, art, music, science, technologies, medicines and genetic code none of which should be claimed as 'intellectual property'. This great public domain of knowledge can be conceptualized as a National Park with its natural wildlife and plenty for everyone to enjoy (Duggan, 2009). Some hunting and fishing may be permitted within the park at certain times of the year, for restricted periods of time, but not year-round. Similarly the public domain is our shared human experience, our knowledge and shared culture, and is there for everyone to enjoy. Some intellectual property rights are granted within the public domain for particular purposes at certain times of the year, for restricted periods of time, but not year-round.

Better yet, when the park is open to the public year-round. The OpenCourseWare (OCW 2009) website at MIT for example, provides free access to course materials used by faculty at MIT, including lecture notes, problem sets, labs, lecture videos and demonstrations. OCW disclaimers are that the website: does not replace an MIT education, does not grant degrees or certificates, does not provide access to MIT faculty members, and may not reflect the entire content of a course. The Online Education Database at MIT for example, lists only accredited online programs and colleges (OEDb 2009). Aside from searching these repositories under certain curriculum areas, a good activity for graduate students of intellectual property law in online distance education would be to compare the terms of service in two of these repositories. There is also a searchable collection of peer-reviewed online learning materials for higher education called the Multimedia Educational Resources for Learning and Online Teaching or MERLOT (2009). MERLOT, located in the U.S., is catalogued by its registered members, and by faculty support services. MERLOT's strategic goal is to improve the effectiveness of teaching and learning by increasing the quantity and quality of peer-reviewed online learning materials that can be easily incorporated into faculty-designed courses.

Instructors and Stakeholders

Course instructors and stakeholders of online distance education seek to control the variety in that park to control that huge public domain of knowledge. Instructors and stakeholders work to classify online distance education into its teleological elements, thereby imposing order on all that variety (Mann, 2000). Online courses are usually distinguished as either: stand-alone, blended, a Web course management system, or a virtual world. A second distinction is often made during course development: lesson enhancement (e.g., blog-writing or math drill), learning resources (e.g., a physics demo or online study guide), or online learning environment (e.g., virtual world) (Mann, 1999). More recently a third distinction has become evident in the light of strong intellectual property rights, classified according to the owners, users and stakeholders, as shown in Table 1.

In the past the fulltime university or college faculty member 'Author', ' Developer', 'Provider' and 'Manager' were the same person. Today the university has progressively taken-over more of these roles, presumably with the belief that the more tasks they control the bigger

Document Authors	Can be one or more subject - matter experts, but most often are rank- and - file academic staff and visiting faculty in a college, university or organization who write or record documents intended for reading or listening by students registered in a particular online course. Every document is an intellectual creation (), deemed 'original' by evidence of the substantive skill and judgment in its expression (Can).
Interface Managers	The instructional designers, graphics artists, video, sound and other resource producers who provide a particular arrangement of tools and files and access, or develop the instructions, directions, feedback for the online course.
Content Providers	Course tutors and general office staff who copyedit, information al, compilation, document editing
Internet Intermediary	University Internet Service Provider run by in - house non - academic staff and work - term students.
Rights-Holders	Original owners or licensed purchasers of various parts of the online course.
Student End-Users	Registered students with their passwords.
Tax-Paying Public	Private citizens who patronize college and universities through their taxes and donations to support higher education.

Adapted from B.L. Mann's Copyright protection and the new stakeholders in online distance education *First Monday,1* 3(7),2008.

Table 1. The owners, users and stakeholders of online distance courses.

percentage of the tuition should accrue to them. In so doing, the creator of course content (Author) is separated from the deliverer, as the university or college takes apart the faculty member's job, assigning different parts to separate members of a casualized academic labour force (Booth & Turk, 2000). Today the 'Web Course Developer is either an individual or a support team that includes an instructional designer, a video and graphics producer who adapts prescriptions from the 'Author' specifications using a web template to author the events of instruction for the Web course. The 'Content Provider' describes an individual or support team, such as a Course Tutor or office staff who help the Web Course Developer. Finally the 'Web Course Manager' is the instructor or teacher of the Web course.

Notably the Document Author, Interface Manager and Content Providers may in fact, not even be fulltime faculty members, but rather 'hired guns' on contract with the university. This appears to be the preferred way of doing business today. Memorial University in Canada recently introduced a new contract to fulltime academic staff, which they are now referring to simply as their 'Content Experts' for 'authoring course materials for distance delivery'. Under the new agreement, "the Content Author signs a royalty-free license to offer a course for five years. Under previous agreements, royalties were paid to the author for the use of course materials, although this was frequently overlooked and ignored by the university anyway, and not paid automatically. Earlier contracts provided authors 15% of any revenues from sale, although the author's rights after five years were unclear given the absence of any statement reverting ownership of the intellectual property to the author in the agreement. 'While the new contract prohibits the university from selling the course material without the author's consent, the author's share of income from a sale after consent is given is determined by a separate agreement negotiated following receipt of consent.' (Memorial University Faculty Association, 2007). This implies that the university intends to will at some point in the future, breach the confidence made seemingly against their own fulltime academic staff member.

Faculty at public universities rely on their faculty unions and associations for advice and support. In the Bryson case for example, after being assigned the responsibility for developing a new online course, Professor Mary Bryson received an e-mail from the administrator overseeing the program asking her to sign a contract transferring rights to 'course materials' to the university. The contract required that Bryson acknowledge the university could use the materials without attributing authorship and could revise and modify them or use them in a different context, without the author's consent. The contract further outlined that the university, not Bryson, would decide which materials were ultimately used in the course (CAUT, 2004). Professor Bryson could not accept the request to sign away my copyright, and for courage of her conviction, spent weeks mired in preparation for the arbitration and the equivalent of an entire day on the witness stand. The Arbitrator in the case G.J Mullaly, found that issues related to copyright were 'conditions of employment' of faculty members in a university setting (UBC v. UBC Faculty Association). The scope of the union's exclusive bargaining authority includes the right to negotiate about matters related to the copyright ownership of bargaining unit employees in works made in the course of their employment. Academic authors have copyright ownership of their writings, unless they agree to assign the copyright to the university, a publisher or someone else.... Whether grounded in an exception or implied agreement, academic authors are the first owners of the copyright of their work. A remedy for Professor Bryson's inconvenience might have been to secure a Creative Commons license. The most commonly used type Creative Commons license is the attribution license in which the author licenses all scholarly uses or just nonprofit scholarly and research uses of their work and requires only that when the work is used, she receives attribution. This may meet the needs of many faculty authors whose work is not likely to produce royalties in the first place since it ensures recognition, which may be all that a scholarly author really wants or can expect. Additionally, the faculty member has provided free access to others throughout academia and furthered the dissemination of knowledge (Gasaway, 2005).

Copyright

Copyright law is the most recognizable form of intellectual property in the world, and perhaps the most misunderstood in educational technology. This is not surprising due to its constantly changing nature. Copyright gives the owner of an original work exclusive right for a certain time period, including its publication, distribution and adaptation. In the European Union, the United Kingdom, and the United States that time period is Life plus 70 years. In Canada it's Life plus 50 years. In India the duration is Life plus 60 years.

Copyright laws differ from country to country. The differences depend on jurisdiction and the type of law practiced (common or civil law), economic interests of the copyright holders, interests of the users in the protected work, and sometimes the conflicts with other laws such as privacy or free speech. In Canada for example, the Copyright Act (1985 / 2005) sets out thirteen rights including reproduction, performance, publication, authorization, and nine other rights, as well as three moral rights of the author: integrity, attribution, and association. Five categories of fair dealing are also provided for inside the Copyright Act itself: research, private study, criticism, review and news reporting. This is different from some other countries like the U.S. Copyright Act (1976) where fair use is treated as an exception to copyright.

Finally, it is worth noting the existence of fraud in copyright, a false copyright claim to attempt to control works not legally within one's control. Copyfraud refers to claiming falsely a copyright in a public domain work, such as universities that pay licensing fees for virtually everything they reproduce and distribute to their students, whether warranted by copyright law or not (Mazzone, 2006). Copyfraud has serious consequences. In addition to enriching publishers who assert false copyright claims at the expense of legitimate users, copyfraud stifles valid forms of reproduction and creativity and undermines free speech.

Ocke's Natural Right

In 1690 John Locke espoused a natural rights argument of copyright, sometimes called labor theory (Carrier & Lastowka, 2007). Locke merged two critical aspects of property, industry and labour of thought (Locke, 1690). According to Locke, labour supplied by an author provided the necessary justification to exclude others from copying the work, even when the author was working with materials that were freely available (Murray & Trosow, 2007). In this way Locke's approach to property was consistent with the concept of intellectual property as a commercial entity within a market-driven economy. Willinsky (2006) extended Locke's theory of property into the commonwealth of learning by holding that the improvement of ideas is what warrants all claims to having created intellectual property. Craig (2002) has criticized Locke's approach to copyright however, which framed the 'author's right' as a natural entitlement to the fruits of her labour. Craig's concern was that if we understand copyright based upon the author-work as Locke did, we fail to see the relationship between the public and the work as little more than a side-effect of the author-work relationship.

The First Copyright Law

Six years after Locke's death in 1704, a very important event occurred in the history of intellectual property law - the passing of the Statute of Anne to reign-in book publishers, book printers and booksellers from reprinting and selling books without the author's consent. The Statute of Anne (1710) was the first copyright law designed as an Act for the encouragement of learning by vesting the copies of printed books in the authors or purchasers of such copies for a particular duration of time.

The Berne Convention

The Berne Convention for the Protection of Literary and Artistic Works (1886/1979) requires its signatories to recognize the copyright of works of authors from other participating countries in the same way that it recognizes the copyright of its own nationals. Prior to the Berne Convention, national copyright laws only applied for works created within each country. Consequently, a work published in France by a French national would be copyright protected there, but could be copied and sold by anyone in the UK or Germany. Now, under the Berne

Convention, French copyright law applies to anything published or performed in France, regardless of where it was originally created. The Berne Convention made a clear exemption for teaching (i) quotations from a work which has already been lawfully made available to the public, and (ii) use of literary or artistic works by way of illustration in publications, broadcasts or sound or visual recordings for teaching, provided such utilization is compatible with fair practice (WIPO 1886/1979, Article 10).

WIPO

The World Intellectual Property Organization or WIPO, was created in 1967 to harmonize the protection of intellectual property mostly in first-world countries, In 1974 WIPO became an agency of the United Nations, to promote creative activity & facilitate the transfer of technology to developing countries to accelerate economic, social & cultural development. The United States ratified the WIPO Internet Treaties in 1998, with the passage of the Digital Millennium Copyright Act or DMCA, with political pressure from record companies and movie companies to bring-in a new law (Ingram, 2007). In 2004 the General Assembly of WIPO agreed to adopt a proposal offered by Argentina and Brazil for the Establishment of a Development Agenda for WIPO to reduce the inequality of access to education that undermined development and social cohesion (Geneva Declaration 2004). In most international IP treaties however, strong rights are always mandatory and the exceptions optional, and nobody appears to be in any rush to harmonize exceptions to copyright (Boyle, 2006).

Similarly a U.S. report on Copyright and Digital Distance Education (2007) granted limitations on exclusive rights, and for the fair use of a copyrighted work, including for teaching, scholarship, or research. Factors considered in determining fair use are that: the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes. The United States added reform to existing provisions in the Digital Millennium Copyright Act (DMCA) of 1998. Lipinski (2003) suggests that the reform to the DMCA updated the distance education provisions for the 21st century by allowing students and teachers to benefit from the deployment in education of advanced digital transmission technologies like the Internet while introducing safeguards to limit the addition of risks to copyright owners that are inherent in digital format.

The WCT

The WIPO Copyright Treaty, or WCT (1996) has inadvertently permitted the entertainment industry to dictate the terms of how business is to be conducted to stakeholders in online distance education. Under WCT (1996), signatories could grant exceptions for uses deemed to be in the public interest, such as for non-profit educational and research purposes. The WCT could not grant these rights directly however, but rather require member WIPO countries to grant certain rights to ensure that right-holders could effectively use technology to protect their rights and to license their works online. The first, known as the "anti-circumvention" provision was meant to confront "hacking" of technological measures (such as encryption). The second was information that accompanied any protected material available on-line and identified the work, its creator, performer, or owner, and the terms and conditions for its use. The net effect of WCT in online distance education therefore, has been a climate of digital rights management that applies more to online music file sharing than online teaching and learning.

The TRIPS

The Trade-Related Aspects of Intellectual Property Rights or TRIPS, introduced intellectual property law into the international trading system, and remains the most comprehensive international agreement on intellectual property. TRIPS was negotiated at the end of the Uruguay Round of the General Agreement on Tariffs and Trade or GATT in 1994. Many of the TRIPS provisions on copyright were imported from the Berne Convention. TRIPS requires the member states to provide strong protection for intellectual property rights. For example, under TRIPS: Copyright terms must extend to 50 years after the death of the author, must be granted automatically, and not based upon any "formality". Computer programs must be regarded as "literary works" under copyright law and receive the same terms of protection.

The DMCA

In the United States, the Digital Millennium Copyright Act or DMCA (1998) has garnered worldwide attention for its strong prohibition of digital lock circumvention, that restricts the act of circumventing itself, as well as the tools that facilitate circumvention - one restriction on conduct, one on the instrument itself. Within the scope of the DMCA, the first is illegal, but the second is not (Gillespie, 2004). Rather than a simple ban on circumvention however, the law creates this two-tiered restriction, distinguishing between circumvention for the purposes of unauthorized access, and circumvention for the purposes of unauthorized copying.

The DMCA has been criticized for granting too much power to copyright holders at the expense of the public interest - too many hunters in the National Park are making the park unsafe for campers, to extend our scenario. In Canada, the DMCA way of managing intellectual property has been called a failure. People don't need a restrictive law that has an impact well beyond the music industry, a law that affects students, teachers, and basic access to knowledge in this country (Geist, 2007). Unfortunately the majority of Members of Parliament in Canada are more likely led to think more about cracking down on the circulation of mp3s on the Internet, than about educational consequences of restricting the public domain (Murray, 2005).

The ACTA and E.U. / Canada Trade Agreements

A proposed new global law called the Anti-Counterfeiting Trade Agreement or ACTA has recently been leaked by the news media (Geist, 2009), and promises to be the most stringent form of intellectual property legislation proposed to date. The intent in ACTA is to mandate a DMCA-style implementation for the WIPO Internet treaties and encourage the adoption of a three-strikes-you're-out system to cut-off access where there are repeated allegations of infringement. The draft legislation includes increased damage awards for infringement, mandated information disclosure that could conflict with national privacy laws, and the right to block or detain goods at the border for up to one year. The decision to release the draft text only weeks after the U.S. denied access on national security grounds may be attributable to the resolve of European Parliament and political pressure from Canadian stakeholders over the lack of public transparency.

Around the same time, although separate from the ACTA meetings, the European Union is also negotiating a Comprehensive Economic and Trade Agreement with Canada with intellectual property forming a major part of the agreement. If the E.U. / Canada Trade Agreement is combined with the ACTA, the "made-in-Canada" approach - already under threat from ACTA - would be lost entirely, replaced by a made-in-Brussels / Washington law. Canadian copyright law would be rendered unrecognizable and Canada would be required to rewrite its intellectual property laws (Geist, 2009).

The TEACH Act

DMCA-style education is currently in place in the U.S. The Technology, Education and Copyright Harmonization Act of 2002 in the United States, also known as the TEACH Act, covers distance education as well as face to face teaching which has an online, web enhanced, transmitted or broadcast component. The Act does not cover making textual materials available to students. The performance or display must be part of systematic mediated instructional activity, at the direction of or under the supervision of the instructor, and an integral part of a class session. Many provisions in the TEACH Act focus entirely on the behavior of educational institutions, rather than the actions of instructors. Consequently, institutions must impose restrictions on access, develop new policy, and disseminate copyright information. Because of the numerous conditions, and the limitations on permitted activities, many uses of copyrighted works that may be desirable or essential for distance education may simply be barred under the terms of the TEACH Act. The TEACH Act has a covert policing function, aimed at implementing changes in educational institutions, restricting materials and restraining students from reading who don't belong in particular courses, treating everyone concerned as potential infringers, gathering-up expired analogue copies, and indoctrinating students in the uses of protected intellectual property (Crews, 2002).

Academic Freedom

It's easy to understand how Web course copyright can be linked to academic freedom. Academic freedom consists in the right to choose one's own problem for investigation, to conduct research free from outside control, and to teach one's subject in the light of one's own opinions (Polanyi, 1951). Universities are revising their policies, taking account of intellectual property rights (Dreyfuss, 2000), and directing more attention to copyright (Seymour, 2006). The special relationship that exists between universities and their faculty members (and their graduate student employees) when they are engaged in teaching or research is different from the ordinary employer-employee relationship. Since independence, freedom of thought, word and action, is at the core of academic freedom, the actions of university faculty and graduate student teachers and researchers warrant special consideration in the context of this legislation (DMCA 1998). Without defining 'academic freedom' or 'respect', the Charter of Fundamental Rights of the European Union (2000/C 364/01) states that academic freedom shall be respected (2000/C 364/01).

In British universities there are no legal protections guaranteeing academic freedom, with exception of statutes (Birtwhistle, 2006). In the UK, the Association of University Teachers (2002) has said 'staff engaged in online distance education should have the same degree of academic freedom as other higher education teachers and researchers. This should be in full accordance with the provisions of the UNESCO statement on the rights and freedoms of higher education teaching personnel (Cottrell, 2002). Their reference to the UNESCO statement to which it refers for support (UNESCO 1997) is consistent with the language used for older Internet technology. Materials created by staff members for distance education courses should be treated in exactly the same fashion as materials created for traditional courses. Authors should seek to retain copyright of this material, whether it is in print or electronic form, while allowing for its free use by the institution for legitimate teaching purposes. Where the institution chooses to exploit such material commercially, the revenues should be distributed in line with negotiated arrangements (Cottrell, 2002). As shown in Table 1 however, there is no such thing as 'the typical intellectual property ownership in online distance education', because there is no such thing as 'the typical distance education course'. No single law or appellate court decision can adequately protect at once the online course and the blended course, or the stand-alone course and the Web course management system. In addition, most of today's online courses have multiple creators, each creator making a different original contribution to the course, each contribution being afforded a different type of legal protection within a jurisdiction. Ownership complexity rises with the number of contributors as well as the different types of legal protection available in the jurisdiction.

Patents

Before exploring patents in online distance education it's worth covering a few basics of patent law. A patent is a right granted by a government to an inventor for a limited period of time in exchange for a public disclosure of an invention. Enabling disclosure is a description of the substance of the patent that someone else who is skilled in the subject would be able to reproduce. This requirement, which is one of the most crucial ones in patent law, is capable of having a considerable amount of influence on the scope of protection of the patent claimed. If the requirement is applied in a lenient manner, i.e. the requirement is easily fulfilled, even if the disclosure in the application is rather vague and generalized (Bostyn, 2003). If the requirement is applied too strictly, i.e. if the application is required to provide a detailed disclosure of the invention and the embodiments claimed, then it could have as a consequence, in certain circumstances, that the scope of the patent would be narrower than originally claimed by the applicant. A patent specification should be given a purposive construction rather than a purely literal one. The language of the claim should be construed purposively, so as to extract from it the essence or the essential elements of the invention. A purposive construction suggests that its 'use' is limited by the subject matter of the invention, and that any acts for a

purpose whether foreseen or not by the inventor may constitute an infringing use (Cullet, 2005). The problem with defining 'use' as commercial use is that the inventor is not obliged to describe the utility of the invention, the inventor must merely describe the invention so as to produce it.

One criticism of patents is that they may hinder innovation and give rise to "troll" entities. A holding company for example, pejoratively known as a "patent troll", owns a portfolio of patents, and sues others for infringement of these patents while doing little to develop the technology itself. Another criticism concerns affordable generic anti-HIV drugs in developing countries and software.

Education Patents

A recent case of patent infringement in online distance education was the U.S. company "Blackboard" against its Canadian competitor "Desire2learn". Blackboard and Desire2learn are web course management systems (products) like "TeleTop", "WebCT", and "e-Script" (Mann, 1999). Blackboard Inc. is the market leader in providing educational institutions with course management software that allows interaction between instructors and students over the Internet. Desire2Learn Inc. is Blackboard's primary commercial competitor. Blackboard sued Desire2Learn for infringement of their U.S. Patent, which claimed an Internet-based educational support system and related methods. There was substantial concern among educators that the legal action went beyond competition to challenging the core values and interests of higher education (Blackboard v. Desire2learn 2009). Desire2Learn appealed for indefiniteness, anticipation and obviousness. In July 2009 the United States Court of Appeals for the Federal Circuit heard by Judge Ron Clark who affirmed the appeal in part, reversed it in part, and dismissed it in part. The message was clear - 'Education' is a for-profit enterprise protected by law.

A potentially interesting activity for graduate students in educational technology would be to consider the multitude of patents that do not conduct so much media attention. A good research activity would be to explore the debate claims, appeals and media attention with particular attention to the issues. The database search engine at the United States Patent and Trade mark Office for example, found 5,298 education-related patents granted in November 2009:

- Educational worksheets. A U.S. Patent was granted to Paulus et al., for a Worksheet wizard: A system and method for creating educational worksheets.
- Validating assumptions. Bajer and Gbedemah of the UK were granted a U.S. patent for a system, method and article of manufacture which implements a training session for training a user to validate assumptions.
- Information exchange. A U.S. Patent was granted to Bezos and Gupta for a method and system for exchanging information between users of different web pages.

Trade Marks & Domain Names

Before investigating some trade marks for online distance education, some explanation is needed on the fundamental concepts of trade mark law. A 'trademark' or 'trade mark' is a distinctive name, word, phrase, logo, symbol, design, image, or sound or service mark. Trade mark law provides protection for distinctive marks, certification marks and distinguishing guises. Trade mark protection is unique. When a trade mark is registered, its owner may not need other forms of protection, such as copyright, design right, or patent protection. Consider now, the education trade mark in Figure 1 that was published by the UK Intellectual Property Office and accessible from the website of the UK Intellectual Property Office (2007).

An interesting activity for graduate students in educational technology would be to explore the free databases of the patent and trade mark systems within the student's own country. Another student activity would be to uncover any international comparisons of trade mark law.

Domain names are closely aligned with trade marks. Many public educational institutions invest in a domain name for purposes of brand advertising, and to gain direct website access for their clientele. The University of Oxford for example, owns the domain name

Figure 1. Educational Trade mark: A sample from the UK Intellectual Property Office, 2007.
(a). Health education; vocational education relating to health related problems; keep-fit instruction; provision of keep-fit facilities; arranging of seminars relating to strokes; educational services for providers and users of healthcare services.

www.ox.ac.uk/. Harvard University owns www.harvard. Edu /, the University of Toronto owns www.utoronto.ca/ and the University of Delhi is using www.du.ac.in/. Private educational businesses also use domain names. Consider the well-known computer game company Tom Snyder Productions, Inc. that uses the domain name http://www.tomsnyder.com/

Considered together then, intellectual property rights form a dense thicket of legal protection around different kinds of creative work. Copyright law protects literary, artistic and original database compilations. Patent law protects new and useful inventions, and trademark law protects the names and symbols of products and services. Independent rights-owners however, can choose to work within a culture of cooperation. This paper has attempted to reconcile these initiatives in respect of online distance education.

IP Law and Online Education

The original question can now be reconsidered - can learning resources be free in the current atmosphere of strong intellectual property rights and anti-circumvention legislation? The answer is that *it depends* on the will of the rights-owner particularly if there is a corporate will to preserve the business model of education on behalf of its shareholders. Proponents of the business model and strong intellectual property protection for online distance education will continue to offer incentives for our work on the mistaken assumption that originality is somehow borne of incentives. For them, original expressions are learning objects, learning resources, instructional devices and artifacts (Mann 2006) and *deliverable* products or services like any other property, to be protected under new contract, and rented-out for profit according to a business model. These deliverables will require different forms of lawful protection, classified as front-end or back-end and briefly summarized in Table 2.

The gap is partially to blame that gap between political rhetoric about our legal right to an education through technology on the one hand, and legislation about digital rights management that speaks more about music file-sharing than online teaching and learning, on the other. The argument to be made here is that the user-as-consumer model of online distance education is not the best approach to online distance education because it ignores more recent educational research that finds that many copyright protected works are actually transformations of older works, or as Marshall McLuhan once quipped 'the content of a new medium is the old medium' (McLuhan, Hutchon & McLuhan, 1977). In this way our uses of online resources may actually be production, and not simply consumption (Scassa, 2005).

The Focus: • Instructional design of a WCMS	The Focus: • Data saved in a WCMS
IP Law: • Database copyright vs. the public interest • Database copyright vs. fair dealing/use	IP Law: • Sui generis database right vs. the public interest • The public interest defense and breach of confidence
Criterion for Protection: • Author's genuine intellectual creation in selection or arrangement for a database () • Author's exercise of skill and judgment ()	Criterion for Protection: • Substantial investment of money, time, effort in obtaining verification and presentation of the contents of a database

Table 2. Forms of lawful protection in a Web course management system (WCMS), one for the front - end another for the back- end. Adapted from B.L. Mann's Copyright protection and the new stakeholders in online distance education *First Monday, 13* (7), 2008.

Conclusion

Educational technologists must get more involved in these tensions between the public's right to freely use original materials for learning, and the course author's right to be recognized and remunerated for their original intellectual expression. Academic discussions about intellectual property law by educational technologists should not be reduced to one-sided opinions about power and control, anymore than arguments about General Public Licenses should be relegated to statements for or against the free culture movement. Instead of judging between them the discussions should become a means of surrendering oneself to the disputants points of view (Aristotle, 350BC). Educational technology can and should address these issues within our courses. The future of educational technology depends on it. Graduate students in educational technology should encounter questions such as, why are there different types of legal protection for different parts of an online course? How are international and national policies about intellectual property relevant to online teaching and learning? What's at stake for colleges and universities in teaching and learning? Suitable projects in educational technology would critically evaluate legislation and case law through academic journals, media reports and court cases, focusing on specific issues in intellectual property law and the public domain. An exemplary project in intellectual property law for example, would be a web-based presentation that integrates some text with graphics and audio, such as an annotated slide presentation.

Document authors, interface managers and content providers who take a laissez-faire attitude toward their own products and services, only perpetuate the commoditization of all online course development and dilute the uniqueness of online contributions, placing them in a mass market where price alone determines their value. The time has come for educational technology researchers and students to consider the law in their explanations of online teaching and learning. We must become aware of the inherent public interest in our work, and the business model that motivates our employers. We must learn to make informed decisions about our intellectual property for ourselves, our students, and for our employers. This is a new and urgent direction in educational technology.

References

[1]. **ARIADNE (2009).**, Http://www.ariadne-eu.org

[2]. **Aristotle (350 B.C.)** Rhetoric. Translated by W. Rhys Roberts. In Lee Honeycutt (ed.). (2009). *Aristotle's Rhetoric: A hyper-textual resource,* http:// classics. mit. edu/ Aristotle /rhetoric.html

[3]. **BBC Training & Development**, http://www.bbctraining. Com/onlineCourses.asp

[4]. **Blackboard, Inc., V. Desire2learn Inc.**, United States Court of Appeals for the Federal Circuit 2008-1368, -1396, Judge Ron Clark.

[5]. **Booth, T. & Turk, J. (2000).** Ownership rights: The sale of online course content, *CAUT Bulletin*, Canadian Association of University Teachers, September.

[6]. **Bostyn, S.J.R. (2003).** The prodigal son: the relationship between patent law and health care, *Medical Law Review, 11*(1), 67-120.

[7]. **Boyle, J. (December 2006).** *Seven ways to ruin a technological revolution*. Paper presented to Google Inc., http://video.google.com/videoplay?docid=-8538240380002213699

[8]. **CAUT (2004).** Landmark academic freedom decision at UBC, *Bulletin Online, 51*,4.

[9]. **Copyright Act, R.S.C. (1985/2005),** c. C-42, http://www.canlii.org/en/ca/laws/stat/rsc-1985-c-c-42/latest/rsc-1985-c-c-42.html

[10]. Copyright and Digital Distance Education and Related Laws, Title 17 of the United States Code, circular 92, United States Constitution, Article I, Section 8, 2007, http://www.copyright.gov/title17/circ92.pdf

[11]. **Cullet, P. (2005).** Monsanto v Schmeiser: a landmark decision concerning farmer liability and transgenic contamination, *Journal of Environmental Law, 17(*1), 83-108.

[12]. **Duggan, G. The public domain. In M. Geist. (Ed.).** *Why Copyright? Canadian Voices on Copyright Law*, video at http://www.blip.tv/file/1513205/

[13]. **Gasaway, L. (January 2005).** Copyright issues and scholarly communications, *Proceedings of Scholarly Communications in a Digital World*, The University of North Carolina at Chapel Hill, http://www.unc.edu/scholcomdig /whitepapers/gasaway.pdf

[14]. **Geist, M. (December 2007).** *Copyright and intellectual property" Whose rights? Who's Property?* Video Clip from The Agenda with Steve Paikin. TV-Ontario.

[15]. **Geist, M. (December 2009).** Beyond ACTA: Proposed E.U. - Canada Trade Agreement Intellectual Property Chapter Leaks, http://www.michaelgeist.ca/content / view /4627/125/

[16]. **Geist, M. (December 2009).** Battle over global anti-counterfeit treaty. *BBC News*

[17]. **Geist, M. (July 2009).** Fair Copyright for Canada, Facebook, http://www.facebook.com/ group. Php? Gid = 6315846683

[18]. **Geneva Declaration on the Future of the WIPO. (2004),** http://www.cptech.org/ip/wipo/geneva declarati on.html

[19]. **Gillespie, T. (2004).** Copyright and commerce: The DMCA, trusted systems, and the stabilization of distribution, *The Information Society, 20*: 239254.

[20]. **India, s. 22,** Copyright Act, 1957[10]

[21]. **Ingram, M. (December 2007).** *Copyright and intellectual property" Whose rights? Who's Property?* Video Clip from The Agenda with Steve Paikin. TV-Ontario.

[22]. **Jacoby, D. (September 2008).** SecondLife, Second Strife? *Intellectual Property & Technology Law Journal*. 20, 9, 7-10.

[23]. **Lipinski, T. (2003).** Legal reform in an electronic age: Analysis and critique of the construction of S.487, the technology, education and copyright harmonisation (TEACH) act of 2001, *BYU Education and Law Journal*, 95-164.

[24]. **MacQueen, H., Waelde, C., & Laurie G. (2007).** *Contemporary intellectual property: Law and policy*, Oxford, UK: Oxford University Press.

[25]. **Mann, B.L. (1999).** Web course management. *Australian Educational Computing* 14(1), 15-20.

[26]. **Mann, B.L. (2006).** Technology adoption and the Internet. In Bruce L. Mann (Ed.). *Selected styles in Web-based educational research*. (pp. 37-50) Hershey, PA: Idea Group Publishing.

[27]. **Mann, B.L. (2000).** Phase Theory: A Teleological Taxonomy of Web Course Management. In Bruce L. Mann (Ed.). *Perspectives in Web Course Management.* (pp. 3-25). Toronto, ON: Canadian Scholar's Press.

[28]. **Martin, B. (1998).** Against intellectual property, Information Liberation. London: Freedom Press.

[29]. **Mazzone, J. (2006).** Copyfraud. New York University Law Review, 81, 1026, http://ssrn.com/abstract=787244

[30]. **McLuhan, M., Hutchon, K. & McLuhan, E. (1977).** City as Classroom: Understanding Language and Media. The Book Society of Canada Limited.

[31]. **Memorial University Faculty Association (2007),** Information Bulletin 14, http://www.mun.ca/munfa / Ib07 0814.pdf

[32]. **MERLOT,** www.MERLOT.org

[33]. **MIT OpenCourseWare** website, http://ocw.mit.edu / OcwWeb/web/home/home/index.htm

[34]. **Murray, L. (2005).** Copyright talk: Patterns and pitfalls in Canadian policy discourses. In Michael Geist (Ed.). *In the Public Interest: The Future of Canadian Copyright Law,* Irwin Law.

[35]. **Murray, L. & Trosow, S. (2007).** Canadian Copyright: A Citizen's Guide, Toronto: Between the Lines Books.

[36]. **Office of the Information and Privacy Commissioner. (2007).** Report 2007-013 CanLII 47420 (NL I.P.C.)

[37]. **Office of the High Commissioner for Human Rights,** Article 13 2(c)

[38]. **Online Education Database** http://oedb.org/

[39]. **OpenLearn website** http://openlearn.open.ac.uk/

[40]. **Scassa, T. (2005).** Interests in the balance. In: Michael Geist (ed.). *In the public interest: The future of Canadian copyright law.* Irwin.

[41]. **Tallmo, K.** The history of copyright: A critical overview with source texts in five languages, http://www.copyrigh t history.com/anne.html

[42]. Tunis Agenda for the WSIS-0 /TUNIS/DOC/6(Rev. 1)-E, http://www.itu.int/wsis/docs2/tunis/off/6rev1.html

[43]. Universal Declaration of Human Rights (1948). Article 26 (1)(2) http://www.un.org/Overview/rights.html

[44]. UBC v. University of British Columbia Faculty Association (2004).

[45]. U.S. Copyright Act (1976). 17 U.S.C. §§ 101 810, http://topics.law.cornell.edu/wex/Copyright

[46]. Waelde, C. (2007). Database copyright: the story of BHB, In Paul Torremans (Ed). *Copyright Law: A Handbook of Contemporary Research*, Edward Elgar Publishing.

ABOUT THE AUTHOR

Dr. Bruce Mann teaches postgraduate courses in Instructional Design and Intellectual property law at Memorial University.