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INTELLECTUAL PROPERTY DEVELOPMENT RECIPROCATION ON DISTANCE LEARNING EDUCATION: A REVIEW OF THE LAW & POLICIES, CHALLENGES AND RECOMMENDATIONS

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Abstract

Distance learning education via computer enabled technologies had created non-traditional off-site learners where better student engagement shifted towards organized content leadership to facilitate courseware delivery. The new teaching model caused concerns with regards to course material ownership and intellectual property rights (IPR), which prompted new legislations and policies to be put in place. University policies, while acknowledging ownership should be maintained by faculty, have a higher number of exemptions tailored for collection of a certain percentage of royalties. This reinforced faculty concerns of infringement of academic freedom of expression. Studies demonstrated raising awareness of IPR among faculty and students should be exercised.

Introduction

Distance learning education might seem to be associated with advancement of knowledge through technology; however, its roots can be traced back to ancient Greeks who issued correspondence letters to their future students (Lockmiller, 1971). With technology development in the state of rapid flux and the advent of the Internet, which has transformed education and learning models to reach the masses, it is challenging for intellectual property laws and policies to keep up to pace with technology proliferation. Therefore, the historical intellectual property rights development, which is still evolving, will be discussed, encompassing North America and European Union (EU) regions, and the reciprocating impact of Intellectual Property (IP) legislation on open and distance learning will be presented, addressing the core challenging issues and policies.

The main challenges associated with distance or open learning is that once the course material is transmitted through the Web, the receiving party may modify the material and distribute it to a third party. Therefore, the original contributor has no control on his or her copyrighted material or intellectual property. In the United States intellectual property rights are derived from the constitution, which states that IP is the conception of ideas that once put in order is protected by copyrights (Daniel & Pauken, 2005). An idea that is put in a fixed tangible form such as in writing or in a phono record is deemed protected by the copyright laws. Initially, copyright protected the inventor or the original owner for a period 14 years with an option for renewal of one time, but the law was updated in 1976 and now provides a lifetime protection plus 50 years' extension after the death of the owner. If a university or college owns the copyrights, the protection period is for 75 years (Burk, 1997).

The Copyright Act of 1976 in the United States had incorporated the Fair Use Doctrine, which allowed the use of copyrighted materials without the permission of the author, subject to certain restrictive usage. The Teaching, Education and Copyright Harmonization (TEACH) Act legislation extended Fair Use Doctrine usage to distance learning (Dames, 2005). Both laws aimed to address fair dissemination of knowledge but caused concerns to faculty about putting their original material on the Web, as a third party can take it, modify the content, and retransmit it electronically, just by the click of a mouse (Gasaway, 2002). Material ownership is another issue that is being debated: If the work is done for hire, do administrators maintain ownership or does it lie within the faculty domain? The interpretation of this is subject to each individual university's IP policies, though studies have showed differences in policies between private and public universities. These might be attributed to copyright law that was revised in 1976 in the United States, as earlier court decisions are anchored on the 1909 copyright law, which favored ownership for faculty. Though, as has been suggested (Burk, 1997), a ruling in favor of administrators or faculty is subjective to the judge handling the case, university ownership of the material might infringe on the principle of academic freedom, which implies that faculty can engage in academic work without undue influence (Hart, 2008; Burk, 1997) from outsiders and administrators. Furthermore, university ownership will impose limitations on academic output and enable administrators to control course content, which will restrict faculty independent thoughts and expressions.

Another legislative effort aiming to bring up to date copyrighted digital media is the Digital Millennium Copyright Act (DMCA) signed by William Clinton in 1998. The aim of the act is to integrate the legislation from the World Intellectual Property Organization (WIPO) with regards to copyright infringements of digital media (Daniel & Pauken, 2005) into United States copyright law in order to prevent conflicts between the two laws. The DMCA limits the liability of non-profit higher education institutions on copyright infringement for basic digital media services.

Intellectual Property Rights and Policies

Teachers and educators should not be concerned during traditional delivery sessions about copyright issues since teaching is not something tangible to be commercialized. However, if the course material is owned by the university, then this will impose limitations on academic output and publication of textbooks, as the course content and ownership does not belong to faculty. The other ramification -- faculty cannot take the material and engage in delivery in another physical venue (Townsend, 2003). In the case of distance learning, things are more complicated since the likelihood of the university being embroiled with copyright infringements issues is higher. The challenges stem from the fact of ownership of the course content. For example, let's assume a scenario where course content was on a university server, and a third party managed to download it, modify it, and retransmit it. Therefore, the material is beyond the control of faculty; so in case of copyright infringement, who is responsible the faculty member or the university? The responsibility in case of copyright infringements is in the domain of a faculty member since the material is owned by the educator (Castagrena, Fine, & Belfiore, 2002). However, others assert that liability is within the domain of the institution (Packard, 2002). This stems from the lack of clarity of the revised copyright law.

University ownership of course material will impose a limitation on course content and publication. This is analogous to a corporate environment where the corporation rather than the employee owns intellectual properties that were developed during the course of employment. In higher education the basis of the copyright issues is derived from faculty academic freedom (NLTN, 1999), which implies that faculty can engage with academic work without undue influence from outsiders and administrators (Hart, 2008). The notion that administrators can own course materials degrades this principle, as shaping of the material is controlled by the administrators rather than the faculty. Therefore, the validity of academic freedom is in danger; though experience in the UK did not indicate significant influence of administrators on shaping curriculum development (Hawkridge, Armellini, Nikoi, Rowlett, & Witthaus, 2010). It is clear that technology proliferation made the copyright and intellectual property law and policies difficult to keep up with. Due to the fact that technology is in a state of rapid flux, research on intellectual property rights associated with online pedagogy is limited and continues to evolve to keep up with advancements in online technology.

A comparison between US private and public universities policies has yielded somewhat surprising results. It appears that public universities have put in place IPR policies that are likely to better protect copyright work of faculty than private universities (Loggie, Barron, Gulitz, Hohlfeld, Kromrey, & Venable, 2006). Though, most of US universities have published their policies on their websites, the situation related to IPR policies is relatively more challenging in other parts of the world. A study in Saudi universities (Al-Jarf, 2013) recommended the Ministry of Education adopt and enforce the 2011 Ministry of Information's electronic publishing rules in addition to establishing offices in Saudi universities in order to craft policies associated with online copyright materials' fair use integration of protected digital resources.

Case Studies

There have been a variety of cases (Twigg, 2003) that highlight various aspects of intellectual property rights issues impacted by distance learning in general, and that contributed to repercussions on the role and model of higher education institutions in general. The widely known case of Arthur Miller, a professor of law at Harvard University who sold videotaped lessons to Concordia University is worth noting. As the Internet and distance learning become more prevalent, the demand for high quality learning materials from the best professors will skyrocket, generating a windfall of income that administrators will likely tap through writing IPR policies tailored for collecting royalties. The university argued that the university provided the right setting for the professor to reach a high status in addition to the financial support and the accessories, such as computers and software, to deliver content. While the professor argued limited competition and no conflict in commitments because Concordia University is an online university and therefore the business model is different from that of Harvard University. The second case is focused on a company that contracts with well known universities to develop courseware for training employees of large corporations. In this model the universities are not involved with delivery, just in providing the course content. The drive for generating income by the universities might compromise academic values and quality by contracting with a third party, since this resembles the role of a publishing power house as the content is not delivered towards credit for a degree. The third case highlights faculty entrepreneurship, where faculty embarked on their own to develop courseware tailored to promote problem solving skills and addressed whether the university should intervene to curb these activities. The

fourth case, is related to whether universities should be engaged in commercial enterprise opportunities related to developing in-house courses delivered online, or should they delegate this mission to a third party by creating spinoff companies.

The four cases have highlighted the importance of writing clear IPR policies that address the issues of courseware ownership and control and further emphasize that distance learning has opened the way for universities to be engaged in commercialization of course content-- in other words of a product, which created a healthy debate of universities being focused on education rather than being focused on enterprise.

Quite often technology can impose great challenges to the judicial system. This can be highlighted in cases related to software computer programs where certain programs can be categorized as a form of speech and at the same time have some sort of functionality to operate a device. Courts and litigants have struggled to determine whether software has expressive or functional nature. Functionality of the software will restrict distribution outside the United States due to government restrictions on exporting certain technologies overseas without a license. But if the software can be considered as a form of speech, then no restriction can be imposed. This is highlighted (Burk, 2000) in the case of a law professor at Case Western Reserve University where he wished to upload class material including an encryption source code on his website. The US commerce department found that there is no problem in publishing his book on the website. However, it did restrict the publication of the source code subject to license requirement. The outcome of the litigation was that the professor argued that the software has expressive nature, although to limited audiences that can understand cryptology programming; the court accepted the argument. This case highlighted complexities and challenges facing the judicial system when cases related to technology, distance learning and freedom of expression are intertwined.

Courseware Motives and Concerns

The online courses are normally developed by faculty in collaboration with the IT department at the university or institution. The central role of the faculty is to develop course materials to facilitate teaching and to provide better student learning experiences. Based on this, faculty are hired and paid for by the institution. Therefore, the course material ownership lies in the domain of the university, in an analogy to a product or patent developed during employment at a company, though it is worth noting that in the past universities rarely asserted claim of ownership on the course materials (Twigg, 2003). Once the course material has been developed, universities have realized that the turnover time to transform it into online format is fast, and, therefore, the university can reach wider audiences by distribution of the course materials online. As a consequence, the university approval policy that permitted the faculty to sell their original work subject to maintaining quality and commitment to teaching and no competition was broken. This idea of transformation of the course material developed by faculty into an online product has changed university policies, as previously universities encouraged faculty to engage in textbook writing and did not claim ownership and responsibility for the content, nor opposed publications, since the material was written by the faculty on their own time -- though universities did provide rewards for such achievements. The assertion of ownership of online material by administrators might be attributed to the resources utilized in the process of developing the course, such as uploading the material to the university server, web design and programming and involvement of the

IT department in maintaining and upgrading the versions of the course. However, these assertions might be challenged as all course materials developed will utilize university resources in one way or another (Twigg, 2003). So the main question is why the sudden change to claim ownership of course materials by the universities? It is due to the fact of the possibility to generate extra cash by packaging those courses and either sell them or claim royalties by licensing them to other institutions. Furthermore, universities were concerned about faculty generating these profits and selling the courses to other universities, so they wanted to minimize the competition. But, looking at the other side of the coin, providing the courses online will impose redundancy of faculty members, and therefore universities might hire less skilled faculty members to cut costs and reduce overhead payrolls. The main anxieties associated with online higher education is how likely the online market will generate profit and to what extent the courseware will create a redundancy among faculty members. To answer these questions, we first define certain terminology associated with online course content and delivery, as quite often we use course and course material interchangeably. It is clear that course definition encompasses course materials, and it became obvious that *course* encompasses five distinct components. These are, content, course material to explain the content, the program of study that includes the syllabus, aims and learning outcome and strategies to be implemented to achieve them, interaction planned and spontaneous and institution to offer the course and award credit. To sharpen our understanding further, consider: While course materials can be bought or sold or repackaged, can a course be owned or can it be only offered? And if the course material can be packaged and sold, are we talking about the institution's involvement as a publishing business?

Selling online courses can generate income, but in today's competitive markets the likelihood of making high profit margins is small. Furthermore, selling courses is a business venture, and history has shown that universities or higher education institutions were not successful in the business environment. Are commercial ventures viable for pursuit by universities? The answer for this question is probably not. The likelihood of universities and faculty developing business ventures will face major hurdles due to multiple factors -- among them lack of experience in developing new products. Creating creative and competitive apps requires a mix of skills, design and experience the university setting lacks. The university cannot recruit, retain and compete with the high flying salaries prevalent in the Internet and media industry. The time scales of corporate and institutional operation and decision making are quite different. In industry, timing is set by customer and not by institutions and operations and adaptability. Decisions are made by faculty committees that likely favor working in traditional old ways. Higher institution and corporations operate on different business models. The former is based on providing the best learning experience, high quality research and retention and recruitment of the highest skilled faculty. The latter on focusing on high earnings ratio, productivity measures and high profit returns on investments. Therefore, the main outcome of the above discussion is that institutions of higher educations should be focused on the learning experience, research and good service for the community. Thus, income generation should be based on tuitions and royalties based on commercialized patents. However, during this process universities can extract extra income that would be beneficial, but that extra cash will likely be marginal as compared with tuitions and fees generated based on the services provided, and the more universities enter commercial business, such as publishing, this will likely degrade their main missions of providing high quality teaching and research.

After the faculty put their course materials online, their services are no longer valued, since they fixed the materials into machines, and those machines are owned by the administrators. The question is: How likely is it that this scenario will happen? In order to answer this question, we need to look in the context of traditional delivery versus interactive online course instruction where the lecturer role is a facilitator and a person packaging the course material to promote better online student learning experience. So in this context of a changing learning environment, the faculty was leading and controlling the content delivery where in the new model he or she is a leader of a community. So there will be transformation and adaptability for the new role in this changing environment. The transformation is a blessing for large number of students attending introductory courses where the help of innovative learning interactive software will require fewer faculty teaching them. freeing resources for more contact time with other subjects. The intellectual property issues that might arise (Twigg, 2003) are due mainly to redefining the teaching missions of higher education in this new environment.

Who Is Responsible for Addressing the IPR Challenges?

Lawyers are asked to create policies that can address the intellectual property issues. However, the main task of a lawyer is to alert the customer to potential risk associated with taking a certain action, and the responsibility of taking the risk is on the customer. Therefore, the institution is the entity that sets the policies, and the role of the lawyer is to craft this policy and highlight the risks associated with it. It is obvious due to copyright law, that the ownership of a course or a course material is a legal issue. It is worth noting that law of ownership has a lack of clarity. The lack of clarity stems from the fact the copyright law revision of 1976 has stated the work for hire doctrine, and the work of regular employees that receive a salary and fringe benefits are bound by the work for hire (Loggie, Barron, Gulitz, Hohlfeld, Kromrey, & Sweeney, 2007); however, faculty members enjoyed exceptions despite the fact that this was understood implicitly in the revised copyright act.

Conclusions

In order to maintain high content quality and academic freedom and to recruit highly skilled staff, the university policies should insure that course ownership and control are maintained fully or partially with faculty. This is essential in order to retain and recruit the best skilled faculty; this will also provide incentives for the faculty to work harder and be more productive. The institution should provide an atmosphere that is conducive for faculty support and transparent in all matters related to IPR. However, where the institution developed substantial ownership of course material, the university might reach out to faculty and negotiate an agreement so that copyright owner will assign a limited rights or permission to use the material by allocation licenses. In certain circumstances the institution can develop substantial ownership of the course material due, for example, to significant contribution from the IT department in programming and web design. The university might approach the faculty member and negotiate an agreement in order for the copyright owner or the faculty member who developed the course material to assign limited rights to the university to be able to distribute the material and share the proceeds.

In order to address issues associated with intellectual property it is suggested that all institutions should have a framework and procedures for decision making. It is noted that many institutions have policies in place, but those policies are somehow

cumbersome as they try to address all possible scenarios, despite the fact that it is unlikely that those institutions will generate any source of income. Institutions should develop a default policy that states that ownership of the material is maintained by the faculty. But this primary policy will have certain exceptions. In the case that the material is commercialized, the university or the college will recoup royalties, though of small percentage, to cover the investment it has made. It is critical that the university maintain an office to deal with commercialization and market distribution. With the aim that if the faculty needs help on such efforts, there is going to be assurance from the institution that they are there to help. Furthermore, the IPR laws and policies will continue evolving, subject to needs and facts on the grounds rather than to academic ideas based on speculations that certain scenarios might occur.

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