

Unexploited Resources of Online Education for Democracy – Why the Future Should Belong to «OpenCourseWare»

**Bernd Lutterbeck, Technical University Berlin,
Department of Computer Science
(narwal@cs.tu-berlin.de)***

With Massachusetts Institute of Technology's bold «OpenCourseWare» initiative, one of the world's leading universities is making its teaching material accessible on the Internet, free of charge, to any user anywhere in the world. While this seems counter-intuitive in the trend towards commercialization in today's educational markets, I will argue that this strategy could not only prove successful economically, but also exploit human capital resources that would foster innovation and strengthen the democratic foundation of a knowledge-based society.

We are told that education, together with health and water, is the next market of the future. According to an estimate by Merrill Lynch, this education market alone is worth some \$2.2 billion, with online education taking a big share of it. Some even go so far to claim that online education is the next killer application for the Internet.

Much of this probably is quite overexaggerated. But education lies at the heart of any society, and as such is reshaped by the online

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revolution. And questions raised for society at large also apply to education in particular:

«Tomorrow's information and communication infrastructure is being shaped today. But by whom and to what ends? Will it meet the needs of all people? Will it help the citizenry address current and future issues? Will it promote democracy, social justice, and sustainability? Will the appropriate research be conducted? Will equitable policies be enacted?»¹

Important questions indeed, and as such almost overwhelming. Instead of bold concepts and common sense approaches, caution and an open mind are called for. In what follows I will not present any answers, but instead suggest that in order to approach such questions, we should proceed cautiously and not let us be deceived by what appears to be "common sense".

Offering Online Courseware

In the mid 1990s I was among the first in our university to bring one of the courses that I teach into the then new World Wide Web. "Don't you worry that the students might not visit your course?" was a question my colleagues kept asking me. Even if I kept such fears, they proved completely groundless. Offering my basic materials online gave my students the freedom to choose what and when to read the basic material online – thus leaving much more time to us for lively face-to-face discussion in the classroom. Nowadays this and other

¹ From the "Call for Papers" for the CPSR conference «Shaping the future. Patterns for Participation, Action, and Change», May 16-19, 2002, in Seattle.

means to communicate electronically with the students are part of our daily teaching routine, and I feel that my communication and relationship with the students has improved, both inside and outside of our classes – with the student rankings for our courses seemingly supporting my view.

These electronic means to reach the students enhance what serves as the fundament of my teaching concept, my teaching ideal:

Knowledge is not some 'commodity', 'good' or 'thing' to be handed over, but is contracted by the students themselves.

I do not 'give' knowledge, but help them construct their knowledge. I think this is what recent education research has labeled the "constructivist" model of learning. It is interesting to note though that I learned this concept long ago while studying constitutional law: Juridical texts and legal norms themselves are without any meaning. It is only the interpretation that 'construct' the meaning. And the electronic means to communicate enables me to reach out to the students in more – and better – ways to help them construct their knowledge.

Publishers and Colleagues – Two Experiences with Online Education

So far, so good. There is no reason why I should not continue to teach in this way, using the ever-growing new possibilities of the electronic medium. Or is there?

The first experience that made me think about the whole situation occurred sometime after I began my online offerings. A big and well-known Austrian publisher alleged that I infringed their copyright with

my course material. Indeed I included a compilation of facts of the European integration from 1918 until now – some 15 pages – out of one of their books into my online course material – of course with all proper citation of author and work. Although I still believe that it is part of the academic freedom to use it the way I did, I did not want my family to suffer from my academic beliefs. By paying some small fine the case was settled.

But it is the second experience that really got me concerned. With our online offerings coming rather into age – and far from perfect to say at least – – I gladly accepted to participate in a research project supported by the German Ministry of Education and Research which aims to develop a common platform for online courses in the field of «Computers and the Law». I expected to find a forum where problems ranging from simple administration of web offerings to societal challenges such as copyright were openly discussed. But after some meetings it became clear what my other colleagues – mostly legal professors from several German universities – came together for: to create a *marketable product* which then would be licensed to some future publisher. (I should add that in Germany the market for legal publication has a quasi-monopolistic structure.)

I accept that in real life there is more than just one way to the truth. But these experiences certainly make me wonder what will remain of my teaching ideal should I decide to follow my colleagues.

Education as a Good – the Privatization of Knowledge

The diagnosis of this trend in higher education is undisputed, and support the position of my colleagues. It is what KerryAnn O'Meara accurately describes as «consumerism, capitalism and for-profit

competition» [O'Meara 2001]: First, students become customers of colleges as vendors. Second, new financial sources have to be found to raise the cost of the consumerism and compensate for the declining public funding. And finally, non-profit universities establish for-profit subsidiaries in order to become financially self-sufficient, with for-profit or publicly traded corporations also entering the lucrative market of higher education. Add to this the internationalization of higher education, and we can follow Philip Altbach, director of the Center for International Higher Education in Boston, when he states: «We are in the midst of a revolution in the delivery of academic programs of all kinds, internationally.» [Altbach 2000] And this revolution is the commoditization and privatization of knowledge and education.

World Trade Agreements and Copyright Laws – Two Strategies toward Commoditization and Privatization of Knowledge

The discussion about the future online education seems to miss one, if not the current important development. In legal terms, education is a (international) commodity, and a such falls under the regulations of the World Trade Organization (WTO) respectively the General Agreement on Trade and Services (GATS). As a consequence, national or European efforts toward any regulations in the area of education could be interpreted as a trade barrier which infringes the concept of free trade and international competition. Therefore, the GATS may further accelerate the trend toward the privatization (and 'Americanization') of knowledge. Not surprisingly, the GATS stands high on the agenda of the current negotiations, with results expected in 2002.

The story would not be complete without mentioning the current developments in international copyright law. Again the WTO served as a first forum, with their members agreeing to a treaty which intends to adapt the copyright laws to the digital era. The United States was the first nation to change their copyright laws accordingly by enacting the Digital Millennium Copyright Act [DMCA] in 1998. In spring of 2001, the EU followed suit, with their members having to adopt the changes into their national laws by December 2002.

The basic concept of these changes is quite simple, as Pamela Litman explains [Litman 2001, p.95]:

1. Any use of a digital work – to view, read, hear etc. – requires a reproduction of that work in the computer's memory.
2. Copyright statute gives exclusive control over reproductions to the copyright holder.
3. Ergo, for *each* use – to view, read, and hear etc. – the user needs either a statutory privilege or the copyright holder's permission.

Simply said, the copyright holder gets the *absolute control over any use of every single piece of content*. Take this together with the international trend of the privatization of knowledge, and – I might be wrong, and I normally do not delve into conspirational theories, but – this looks like all dreams coming true for Hollywood and the emerging education industry, almost like a strategic alliance of both industries.

Hard Questions

Now think of my legal professor colleagues. My strong guess is that they would just follow the logic of the (new) copyright law, and *their* main question would be: How many royalties for the holders and entrepreneurs in the online education market? While this probably deserves an answer, I think that we should rather be concerned with questions that legal professor Jessica Litman poses, such as [pp.174-5]: «What is it the public should get from the copyright bargain? What does the public need, want, or deserve? [W]hat is it that we want the public to be able to do with those works?»

So while it is widely agreed that the trend turns toward the privatization of education, it is far from clear if thus we really get a better education for everyone, or on the contrary leads to «digital diploma mills» [Mogden 1998]: Private cooperation who churn out academic degrees in order to maximize the shareholder value. And Altbach certainly is right when he cautions us: «All of this does not mean that these new trends are evil». But what are the answers? And how should we proceed?

I think that Chris Werry [2001] has a point when he observes: «Too much academic work ignores the most important forces shaping online education, leaves large areas of debate uncontested and doesn't really speak to groups actively involved in new media who could constitute potential allies». Looking for alternatives to current models of online education, he rather pragmatically suggests five points how we should proceed:

- «Give administrators alternatives»

- Ensure control of academic resources and construct strategic alliances»
- «Examine the rhetoric of online education»
- «Proceed cautiously»
- «Train students to be "community architects"» [Werry 2001]

Werry without a doubt knows that the future electronic property rights are the crucial points of the strategy. What he looks for are «ventures designed to advance an *open source* movement for online academic resources».

Open Source?

Open Source and OpenCourseWare – Two Strategies Offering Alternatives...

Most of you will probably heard of the Open Source Software movement, made popular by the almost ubiquitous Linux operating system. In its essence, open sourcing means that the source code of a software program is distributed along with the program, making it possible to study its workings, to modify it or even derive other software from it. The open source license allows for free redistribution by anyone without paying any licensing fees or royalties to the author; the only condition for redistribution – modified or not – is that the same licensing terms have to be applied [Weber 2000]. In essence, software authors give up their right to hide the source code from

others, and in turn get access to all other open source software, to peruse it, to create new open source software.²

So process over product – open source over closed software.

Think about this concept in the area of education: Creating the knowledge in others, or sell the knowledge products to them. Yet another lunatic idea from academia lacking any real world common sense? May be not quite, according to the initiative launched by the Massachusetts Institute of Technology called «OpenCourseWare»:

«The idea behind MIT OpenCourseWare (MIT OCW) is to make MIT course materials that are used in the teaching of almost all undergraduate and graduate subjects available on the web, free of charge, to any user anywhere in the world.

«MIT OpenCourseWare will provide the content of, but is not a substitute for, an MIT education. The most fundamental cornerstone of the learning process at MIT is the interaction between faculty and students in the classroom, and amongst students themselves on campus.» [MIT 2001a]

Let me reiterate: The education market is a potentially extraordinarily valuable market. It is unclear though which kind of rules should govern this market, and what issues – sustainability, democracy and public access – have to be taken account of, and how. The current answers, by international laws, by the activities of corporations and

² See the recent study of my group which documents the first comprehensive empirical research on the geographical distribution and personal background of Libre Software developers: Gregorio Robles, Hendrik Scheider, Ingo Tretkowski, Niels Weber, 2001.

educational institutions alike, are all based on one assumption: That knowledge is a commodity, and education is a *product*.

Now the Open Source movement as well as the OpenCourseWare initiative differ in this assumption: Their (and my) claim is that knowledge, education is a *process*: «*The software product itself is valuable but is not the key to understanding open source. The process is what matters most*» [Weber 2000]. «*The most fundamental cornerstone of the learning process [...] is the interaction between faculty and students, [...] among students themselves*» [MIT 2001a]

...and the Consequences

Is Open Source and OpenCourseWare really the way to go? The process over the product? Again, isn't it merely an excuse of too-naïve academics who just are too afraid to share the real life's' challenges and threats?

I am sure you agree with me that a top-tier U.S. university cannot be accused of lacking any economic sense – the MIT will certainly not endeavor to do anything that could prove disastrous financially. So let's listen to how MIT-president Charles Vest explains the rationale behind this initiative: «*OpenCourseWare looks counter-intuitive in a market driven world. It goes against the grain of current material values. But it really is consistent with what I believe is the best about MIT. It is innovative. It expresses our belief in the way education can be advanced -- by constantly widening access to information and by inspiring others to participate,*» [MIT 2001b]

The logic of the process assumption of education is thus: The more open the access to the source code or the course material, the knowledge of the others, the more innovation in all fields, including

the economy. By fostering the exchange *between* the people we foster the innovational power, and thus society as well as economy will profit from it as well as the individuals. In contrast, the commoditization and tight control of information and communication would limit this exchange, thus threatening the exploitation of these human capital resources. If the main resource is the process of knowledge exchange, not the knowledge products, then protecting the latter at the cost of severely constraining the former looks like a very bad idea to me.

Governance and Soft Power!

Again my legal professor colleagues of the online education project: I suspect that even an MIT initiative will not make them listen too carefully. The legal common sense is on their side, as are the trends in copyright law (do I hear you think «self-fulfilling prophecy»?).

So as my last point for today, let me shed a different light on OpenCourseWare. OpenCourseWare as well as Open Source differ from their counterparts in that they depart from the given simple relationships – producer to consumer, college-provider to student-customer – that are backed by the coercive power of the nation-state. Instead they employ a broader set of policy tools that let the participants structure – including, but not solely the state – diverse relationship and create new instruments to govern the change – through *Governance* and *soft power*.

The *Governance* concept is well known for all who study the European Union: «[R]ules, processes and behavior that affect the way in which powers are exercised at European level, particularly as regards openness, participation, accountability, effectiveness and

coherence» [WhitePaper]. The power relationships are not something that is given by the polity of a society, but has to be created between those affected. What will be the institutional outcome is open to negotiation, governed by a set of basic principles such as openness or accountability. The OpenCourseWare initiative and the Open Source movement are prime example for such a breeding ground for creating new governance structures.

To understand the concept of *soft power* I would suggest an article by Joseph Nye and William Owens (Nye is among the leading politicians and academic scholars in the U.S.): «[Soft power] is the ability to achieve desired outcomes in international affairs through attraction rather than coercion. It works by convincing others to follow, or getting them to agree to, norms and institutions that produce the desired behavior» [Nye/Owens 1996]. One of the results for nation-states which follow this concept is that they «may not need to expend as many of its costly traditional or military resources». Thus, soft power also is about the attraction of U.S. democracy and free markets. Again, OpenCourseWare and Open Source provide the field for the participants to use the soft power, to create the norms and institutions necessary to learn, create, invent, innovate and to not least succeed economically.

Lawyers and legal scholars are trained to understand and to handle power. But they tend to follow those interests who hold the most power.

Now if my legal professor colleagues considered the MIT initiative without any bias, I could very well imagine that we can soon find some new allies among us.

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