



CC Learn: Building a Global Learning Commons

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Building the Educational Commons

Concept Paper – Confidential Draft

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This is a concept paper describing the rationale for the creation of **CC Learn**, a division of Creative Commons devoted specifically to education.

Where we are

The Internet offers the possibility of universal access to free, high quality educational material wherever there is a network connection. Yet despite notable particular successes and remarkable institutional innovation, the promise of Open Educational Resources has been only partially fulfilled. We are still a long way from the dream of a national and international community of engaged teachers and students, at every level of education, contributing to a global commons of educational material that can be customized to local languages, needs and educational requirements, an educational commons that rivals Wikipedia in its scope and ambition. Nor does one find an extensive practice of innovation and experimentation with other open content from around the net, rather than innovation only in the provision of one's own material. Think by contrast of the fruitful experimentation involved in Google Maps mashups, or the thriving musical remix, or open source software communities. There it is precisely the openness of the material that allows others around the world to experiment with presenting it in new ways, or turning it to new ends. In the educational context, such experiments are much rarer.

There are multiple reasons why progress is hard. Existing efforts are often fragmented. Educational content may be free – in the sense of requiring no payment – but often it is not open. Either it is unclear what uses the content can be put to, or it is explicitly subject to complex limitations. One major “open” educational resource, for example, requires *written permission in advance* even to print multiple copies of its assignments. Some excellent

foundation-funded educational computer games are proprietary rather than open source, meaning that neither code nor content can be adapted by others. A culture of fear and uncertainty about fair use and liability leaves content behind institutional firewalls even when it is perfectly capable of being placed on the open net. Connections between open educational resources are equally scarce. Though the internet itself teaches us that it is by networking knowledge that the greatest gains are

Excerpts from the Intellectual Property Policy of an “Open” Educational Repository

***** is a free and open resource designed primarily for faculty and students of higher education...

2.1 Use of ***** Materials

...**All other Community Members and users must have explicit permission and/or licensing from ***** to use ***** materials. All permission requests must be made prior to use....**

2.2 Use of Learning Materials by All Users

Users of learning materials (see paragraph 1.4 above) found by ***** Community Members and Users at the ***** site, whether in print or not, beyond that specified in the [Fair Use guidelines issued by the US Copyright Office](#), **must have the explicit permission and/or licensing from the author of those materials.**

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to be made, conflicting requirements lead to “content ghettos,” isolated from other efforts both legally and technologically. The content is not “interoperable” – either as a matter of legal right, or as a matter of technical facility. Site licenses also sometimes forbid modifying the content so it cannot be customized for a particular curriculum, mixed and matched with other lessons from elsewhere or translated into another language.

Educational efforts also vary notably in the types of user participation they allow. Current analysis of the web hypes the emergence of web 2.0 – characterized by the use of social tools such as peer ranking, tag clouds, and user-generated customization. More ambitious efforts are directed towards web 3.0 -- Tim Berners-Lee’s semantic web – which would move to a machine-readable network in which metadata allows the computer to go beyond searching for a particular string of characters (the word “protein” or the word “string”) towards a deeper comprehension of the meaning of those characters in a particular context. (“This is a 2 dimensional representation of a protein string.”) While there are notable exceptions, much open educational content is best described as

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Web 1.0 – static and unchangeable material, in a single hierarchically run repository, with scant attention to user communities, or technological facilitation of user contribution and assessment, and a very limited degree of interoperability with other material elsewhere. When user communities do form, their efforts are limited to the particular site in front of them. In the jargon of the web, contribution does not “scale.”

All this is not to criticize existing efforts, which are immensely valuable. Nevertheless, the intensity of interest and ease of engagement with a global audience that one finds on both commercial sites such as Myspace, or non profit sites such as Wikipedia, is often lacking. Only occasionally does one get the sense that individual efforts see themselves as part of a general movement to create a national and global educational commons. Institutional design reflects that narrowness of focus – most starkly in the lack of attention paid to interoperability – both technically and legally. And with lack of interoperability comes the stifling of the experimentation that has made the Web such a dynamic force for social as well as technical innovation. Yet such experimentation – whether in accelerated learning, automated transcription and search of educational video, open source educational games that incorporate free educational resources from around the world, or in types of innovation that we cannot even imagine today – could be hugely valuable. Experimentation is multiplied exponentially when one can innovate with all open content worldwide, not merely with one’s own content. Someone else may come up with the “killer app” that makes the material in my repository more useful. “With enough eyes all ignorance is soluble?” No, but with more eyes and more pedagogical experimentation more barriers to effective teaching can be overcome.

Creative Commons

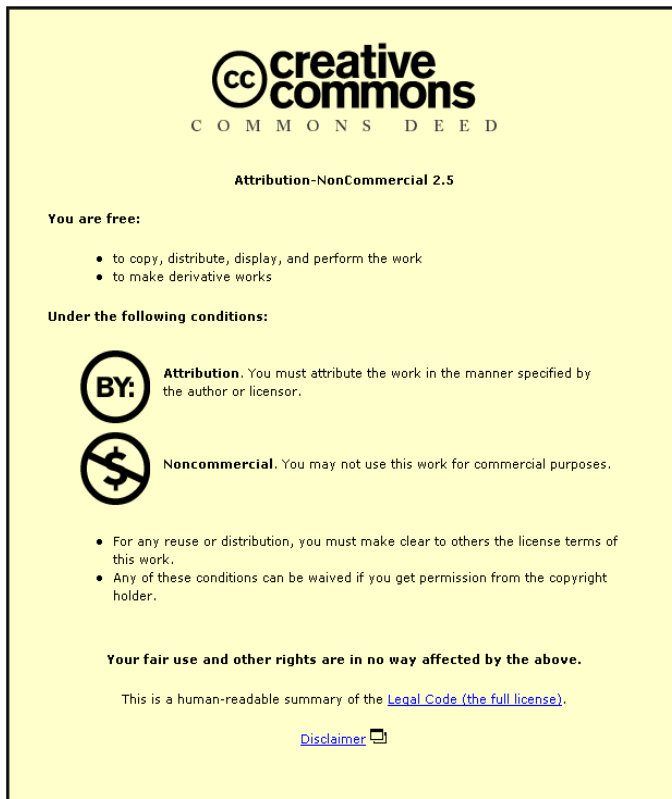
Creative Commons is an organization that offers free, easily understood, machine readable licenses by which individuals can retain particular rights to their creative work, while sharing it with the world on generous terms. More than 140 million works worldwide are shared under Creative Commons licenses. Together those works constitute a global commons of material which can be used, and in many cases modified, without permission and fee. No paperwork, bureaucracy or lawyers. Permission has already been given. Creative Commons also creates tools which make contributing to, searching and reusing the commons easy and intuitive. Examples range from CC's metadata, which makes the legal availability of a work something that is searchable on the world's major search engines, to initiatives such as CC Publisher and CC Mixer. Finally, Creative

Commons has helped to catalyze the creation of remarkable "commons communities" in many areas – ranging from music and photography to the biological sciences. It is the combination of these legal, technical and "social engineering" skills, coupled with an entrepreneurial speed of operation, that has led to the explosive growth of use of CC's licenses during the 4 years it has existed.

Creative Commons has always worked on educational issues. MIT's Open Courseware, one of the great success stories in open educational resources, was an early adopter of CC licenses. That project is now the center of a truly global initiative, with over 100 institutional collaborators around the world. Other CC partners range from Rice University's Connexions site and the Public Library of Science, to the Brazilian government's publicdomain.gov educational portal and NC Learn – a North Carolina organization devoted to bringing open educational resources to K-12 educators. In

some cases, CC was intimately involved with the development of these initiatives. In others, its role was that of giving advice, aid and licensing tools to an existing entity. But these projects have been essentially opportunistic. No single person or division within Creative Commons has had responsibility for education, nor was there a larger strategic plan on how to catalyze, mark, federate, and build the education commons or to expand the community that contributes to it and draws from it.

We want to create a division inside Creative Commons that focuses specifically on education – provisionally titled CC Learn. Like CC's successful effort in science, the Science Commons, the



project would begin with the hiring of an Executive Director who would be responsible for building the initiative and – ultimately – of raising funds to ensure its continuing viability.

The mission of CC Learn is to break down some of the barriers to the formation of the global educational commons, to seed or jump start particular initiatives and demonstration projects, to “federate” or “network” existing efforts, to offer interoperable open tools for marking, searching and reusing content, and to bring to educational material some of the entrepreneurial, creative, open attitudes and distributed creativity that characterize the free software community, Wikipedia, or the Creative Commons itself. Each of the existing barriers to the realization of this educational commons, suggests a path to a solution – paths that CC Learn would be ideally placed to navigate.

CC Learn’s Mission

1.) Legal barriers to aggregation, modification and reuse across open educational archives should be eliminated where possible, and open content licenses should be compatible, interoperable and – ideally – machine readable. This is a complex issue. Some barriers may be necessary because some included content is already licensed under restrictive terms. Limitations on copyright – such as fair use, fair dealing and the right of private copying – vary considerably around the world and great legal sophistication is needed to harmonize presentation. {Creative Commons International has exactly this kind of expertise.} There are cultural and social impediments to the adoption of open licenses as well as fears about loss of control, liability, and copyright infringement. Some of these fears are reasonable, others unjustified. Dealing with them requires the experience, negotiating and counseling skills that Creative Commons has acquired over the last 4 years. CC can also educate the funding community about the importance of mandating openness from the beginning. It makes no sense for philanthropic and governmental efforts to create a Balkanized field of “open” content that is actually mutually inaccessible as a legal matter, or where permitted uses are simply unclear. There are large potential benefits of breaking down some of these barriers. They include: a widening of the pool of available materials, saved cost and time from the avoidance of duplicative effort and the increasing returns to scale characteristic of network effects. One person who knows about Vikings is just that. But connect that person with a global network of people with every possible type of specialized knowledge and you have a global encyclopedia that benefits everyone – including the expert on Vikings. The same type of increasing returns to scale have yet to be realized in the educational field.

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- **CC Learn’s Mission** is that of **advocate** for the benefits of interoperable open content licenses to both repositories and to governments and funders, **advisor** on how to design the content creation system with an eye to an open end product, **trusted intermediary** in negotiations between existing sites with currently incompatible licenses.

Open Content should actually be open – legally and technically. Design should focus more on building an accessible, interoperable educational commons worldwide, not just “improving our site.”

2.) **Technical barriers to integration should be eliminated where possible so as to allow easy search, access, computerized identification of legal restrictions, editing (where allowed), attribution and “remixing.”** This too is a complex problem. Many educational archives have an architecture that was mainly determined by their own needs. Designing sites and materials so as to facilitate *external* search and interoperability is often not a priority – (something in the educational culture that CC Learn would strive to change.)

Metadata can offer valuable user information – and CC is the leading provider of metadata worldwide – but unless metadata addition is simple, intuitive and almost effortless, it will not happen. There are promising efforts in streamlining authoring and tracking tools – Connexions is a good example – but much remains to be done. A central part of Creative Commons’ mission is to solve this type of problem by mingling social understanding and technical innovation. Examples include the machine readable licenses themselves, tools such as CCMixer – which tracks changes and contributions and reports on the most frequently used contributions so as to maintain a “credit economy,” and the “Neurocommons” project – a test case attempt to create the first draft of a semantic web of the scientific data and literature through automated text mining and metadata addition. Finally, CC has considerable experience in making open tools ubiquitous – embedding them in commonly used applications so that openness is actually easier than the alternative. (Consider the Creative Commons search boxes in Firefox, Flickr’s or Lulu Press’s licensing tools, or the plugin to Microsoft Word that allows the author of a document to put it under a CC license from within that program.)

- **CC Learn’s mission** here would be that of **cheerleader** for technical openness and interoperability, **provider** of existing tools, **go-between** to encourage partnerships between institutions and create networks of expertise, **activist** to get the open source community to help in providing needed technical expertise and **partner** with particular technical efforts.

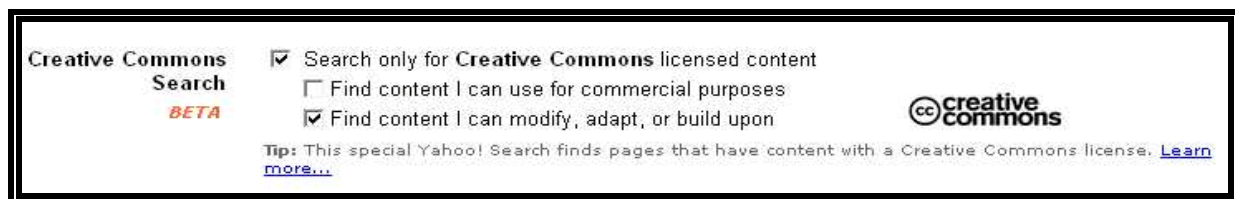
Sample Metadata from a CC License

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Commons Attribution-ShareAlike 2.5 License</a>.<!--/Creative
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3.) We need to experiment in adding the social ranking tools and user generated innovation of Web 2.0 and the semantic web tools of Web 3.0 to the existing range of open educational resources, thereby multiplying both potential innovators, and the range of “findable content” on which those innovators experiment.

- **CC Learn’s mission** here is the least well-defined, largely because it is only possible to find through experimentation where the greatest gains are to be made. Broadly speaking our role would be that of **advocate** for a wider focus on both materials – “our content worldwide” rather than just “the content on my site” – and on the potential educational innovators who might experiment with that content. CC Learn would also take the role of **integrator** – spreading the word about best practices and successful experiments to the community at large. Finally, CC Learn would act as a **hub** – using the contacts developed in trying to make open content ubiquitous and easy, to solve the problems in the community as a whole.



4.) We need an evangelist for the value of open educational resources in general – not just the value of a particular site or program. The value of open educational resources needs to be trumpeted to the world at large – to the public, to teachers, to students and to those responsible for paying for existing – increasingly expensive – proprietary educational content. There is no existing organization that has this as its central mission. The dirty secret of some excellent open repositories is how little they are used. The success stories – such as Open Courseware and Connexions – have capitalized on high demand, strong networking and good PR. Other excellent sites absorb massive amounts of energy and money and remain under-used. Great sophistication is shown on site design. Little is devoted to trumpeting the advantages of the openness to both teachers and students. This is something that Creative Commons has done with great success. It is also worth noting that a more “federated” or integrated network of open content would have enormous advantages. Most people discover Wikipedia because they search on open search engines for a particular fact, find a high ranked Wikipedia answer, and are thereby educated into the value of the site. The same could be true of a wider network of open educational resources.

- **CC Learn’s mission** here is that of **evangelist** for open education in general – seeking to raise awareness of its value, its cost savings, its importance to development and economic growth, its fundamental advantages in terms of human *freedom* – using concrete examples that demonstrate its benefits. But CC Learn would also have the job of **educating** the existing community to the benefits to them of being part of a wider network of educational resources. Finally, CC Learn

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would have the role of **movement builder** – bringing more people, more teachers, more eyes – to open education and thus increasing its benefits.

Organization

CC Learn is run by a Steering Committee comprised of members of the Creative Commons board who have detailed knowledge of the legal, technical, and social problems involved. Participants include **Hal Abelson** a Professor of computer science at MIT and a key architect of both Open Courseware and D-Space, **Michael Carroll** a law professor at Villanova who helped to draft the original Creative Commons licenses and has extensive experience in open access publishing, and **Jimmy Wales**, the founder of Wikipedia. The Steering Committee is chaired by **James Boyle**, a law professor from Duke University who founded the Center for the Study of the Public Domain, and is on the advisory board of the Rice University Connexions Project. The Steering Committee is also advised by **Laurie Racine**, another Creative Commons Board Member, and Senior Fellow at the Norman Lear Center who has wide experience in both education and the arts, and is Chair of the Trustees of Teachers without Borders.

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