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Sharing is Learning: Open Education Resources

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My organization, the Institute for the Study of Knowledge Management in Education
(www.iskme.org) is an independent, nonprofit research institute that conducts social
science research in education, develops research-based innovations, and facilitates field
building to improve knowledge sharing in the field of education. This includes K-12
education, higher education (including community colleges), as well as informal
education (primarily in education-based support organizations, science centers, or
anywhere that learning happens). As a bit of background in the open education space, the
field of Open Education Resources (OER) grew from several dozen projects that were
actively working on a host of infrastructure solutions for the sharing, use and reuse of
OER, including the production of educational content and curriculum with alternative
copyrights, social networking applications, open source tools, and collective standards for
metadata. Several of these efforts were funded by the William and Flora Hewlett
Foundation which had been championing the cause of open education since the funding
of MIT's OpenCourseware initiative in 2001.

In terms of ISKME's research, one question that drives us incessantly is, can we really
facilitate systemic change in education through knowledge sharing? Interestingly, the
onset of the open education movement has been an opportunity to look at information and
knowledge flow from the vantage point of open education resources in supporting both
top-down and bottom-up models of change. Since 2002, ISKME has been working in the
area of information use, social learning and open education. Our work in open education
resources (OER) has been part of a shift happening in education that supports shared
teacher expertise and peer-based learning as a means toward continuous improvement in
K-20 education. As such, open education content is not only a new economic model for
education, but also a primary vehicle for creating more flexible, adaptable curricula that
support learner-centric approaches.

What does this have to do with Free Culture? If, as we theorize, that engagement with
OER is a model for the transformation of teaching and learning rather than thinking of
OER as a product in and of itself (such as products created by formal content providers or
publishers, etc.), it has proven more useful to think of the development of OER as a
process, which includes feedback and discussion, tagging, peer reviews and ratings, and
licensing that allows sharing and reuse. This framework can be used to enhance
classrooms or transform pedagogy, allowing teachers and their students to contribute
their own work for community review, thereby building a digital legacy of research and
information resources that future students can respond to, and extend. This possibility
enables teachers (at all levels) to create and share classroom activities and associate them
with publicly available data sets, open simulations and other analytical tools. For
example, science pedagogy may be transformed by moving beyond the narrow

parameters associated with doing "school science" in which students produce work that will only be seen by the teacher, to the wider horizons of "real science" in which students have the opportunity to contribute to a scientific community and to view their work within a much broader and more robust scientific context.

Our research has taken us from the Community Colleges of California to the townships of South Africa, and from the classrooms of Silicon Valley to research partnerships with European SchoolNet, all with a focus on understanding the role of community-centered technologies, processes, and cultures that can support experimentation, self-assessment, and adaptation, while maintaining and continuously reinforcing a clear sense of an overall teaching and learning mission.

For example, in our study of the Free High School Science Texts (FHSST), we examined and analyzed practices associated with the successes and challenges encountered by the development of high school science textbooks. FHSST. We looked at the participatory model of content creation as an example that other open education projects could use in thinking about and sharing their practices, processes, and strategies. (See Building Open Educational Resources from the Ground Up: South Africa's Free High School Science Texts, http://wiki.oercommons.org/mediawiki/index.php/OER_Case_Study_No.1)

It will be interesting to see over time if teachers and learners, in fact, will shift from a consumer culture for educational resources, to one in which teachers gain leadership and support to adapt and develop resources for their own needs, and then share those resources with others.

Perhaps one of the most significant findings we have seen thus far is that our research has shown that teachers are already practicing collaborative behaviors that we might say are OER or "free culture" like. For example, we have found that teachers do engage in practices such as reusing other's materials, creating their own materials, collaborating with colleagues to discuss materials, etc. These behaviors are primarily occurring offline, and some of these behaviors are more prevalent than others (providing feedback on other's materials is less prevalent, for example, than adapting other's content). Also, when OER and associated technologies are introduced, teachers align their use and participation to their prior or existing practices. For example, we found that teachers who were accustomed to working with students in collaborative ways, were able to easily use open textbooks to do that. They also, however, started to think of more advanced ways to use OER, and were able to move quickly beyond basic use.

So then the question becomes, how can these behaviors be leveraged and built upon, and as such, we continue to conduct research to better understand what existing behaviors are in place, and how those behaviors translate or relate to online communities around OER. And furthermore, what research can be done that shows, if with the right supports, how teachers can be active participants in OER models (or free culture models). The policy issues become how can we then support participation in free culture by assessing and leveraging existing practices, which means that we need to view teachers as the real

experts in their domains. We might also argue that this is where the capacity for innovation might be the greatest, but this is just speculation at this point.

A few challenges and opportunities

1. What structures must be in place for teachers to be legitimated in online collaboration and risk-taking

2. We need to explore ways to draw upon what teachers are already doing and translate that to online communities of OER practice

3. Supporting teachers in their desire to do more of those behaviors that they are currently doing less of, such as sharing feedback on content with their colleagues, as well as in adopting new practices, such as forming cross-disciplinary collaborations in OER.

Additional Reading:

Petrides, L. A., & Jimes, C. (2008). "Building Open Educational Resources from the Ground Up: South Africa's Free High School Texts", Journal of Interactive Media in Education, http://jime.open.ac.uk/2008/07/jime-2008-07.html

Petrides, L., Nguyen, L., Jimes, C., & Karaglani, A. (2008). "Open Educational Resources: Inquiring into Author Use and Reuse." International Journal of Technology Enhanced Education, 1(1/2), 98-117.

Petrides, L. A. (Feb. 2008). "Fulfilling the Promise of Open Content," Inside Higher Education

Creating, Doing, and Sustaining OER: Lessons from Six Open Educational Resource Projects: http://wiki.oercommons.org/mediawiki/index.php/OER_Case_Study_White_Paper

OER Case Study Project: http://wiki.oercommons.org/mediawiki/index.php/OER_Case_Study_Project

OER Case Study Framework: http://wiki.oercommons.org/mediawiki/index.php/OER_Case_Study_Framework