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In Search of Student-Generated Content in Online Education

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Enabling students to create their own educational content increases engagement, improves learning, and can result in products of lasting value. So why are effective examples of student-generated content in online education so hard to find?

What is student-generated content?

Contemporary education at all levels tends to cast students in the role of content consumers; they are presented material which has been developed by others - teachers, vendors, instructional designers or other professional developers - and are expected to demonstrate that they have absorbed the content in some way.

Student-generated content has also long been an integral part of the educational process. Student-generated work products such as papers, essays, lab reports, etc. are most commonly used to complete assignments, prepare for tests, or otherwise aid the process of gaining comprehension or knowledge. However, student-generated content is usually used for the very limited purpose of demonstrating that students have absorbed content selected and developed by others. Student work products are often only seen by two people – the student and the teacher – and are rarely seen as having any practical value in most academic subjects once they are assessed and graded.

Not all student-generated content is used for such limited purposes. In architecture, art and design education, student-generated content has long played a more prominent role in the educational experience. In student performances such as concerts, recitals, poetry readings, and drama productions, the content is more of a vehicle for student expression than a body of knowledge to be consumed. The importance of student-generated content varies greatly by subject. For example, students create practically all of the content in elementary school art courses and practically none of it most in mathematics courses. Its importance also depends on the age and experience of the learners, for reasons described below.

The value of student-generated content has also gained increasing acceptance in other respects. A growing number of higher education institutions are implementing e-Portfolios which typically allow students to store content they have created. However, this is often seen as more of student support service function than an instructional one. Student-generated content is also

increasingly used for marketing purposes, in particular as a way of lending a sense of authenticity to college and university web sites¹.

In general, however, student work products are not valued as a primary content source, and the purest student-generated content such as original artwork is generally the least valued academically in K-16 education. In short, the role of student-generated content is highly marginalized in contemporary educational practice.

Why is student-generated content valuable?

I had never seen such creative presentations and pride of accomplishment².

To anyone who's ever witnessed firsthand the excitement of learners who have created their own content, the marginalization of student-generated content is perplexing to say the least. Spurred by a belief that this is an important emerging area in online education, I decided to research examples through my role as an Effective Practices Editor for the Sloan Consortium. At first, I used the term "student content creation" when searching for examples until being advised that "student-generated content" was a more common term. In particular, I searched for examples which illustrated a shift from students as content consumers to content producers, and/or ones which illustrated how student work products could have more lasting value.

Over a several-month period, I found a number of good examples and used them to form a collection of effective practices related to student-generated content in online education. The collection can be found on the wiki version of the Sloan-C Effective Practices web site³. Although the collection is relatively sparse at present, the examples in the collection provide evidence that enabling students to create their own educational content increases engagement, improves learning, and can result in products of lasting value.

Increasing Student Engagement

In U.S. higher education, the term "student engagement" has become an indicator of educational quality. The primary source of data on this topic is the annual National Survey of Student Engagement (NSSE). As NSSE survey results indicate, there is still a lot of room for improvement regarding the relatively low levels of student engagement which still pervade much of higher education. In the 2006 NSSE Survey⁴ of over one million students at over 600 higher education institutions in the U.S. and Canada, fewer than one-fifth of college freshmen and fewer than two-thirds of college seniors reported that they made class presentations "often" or "very often," while 40% of college freshmen and almost 30% of college seniors reported that they asked questions in class or contributed to class discussions "sometimes" or "never". While the NSSE survey does not ask direct questions about student-generated content and these examples

¹ WhyLongwood website: <http://www.whylongwood.com/longwoodlive/>, [09.09.2007]; IamFresnoState website: <http://www.iamfresnostate.com/>, [09.09.2007]

² M. Knowles, *The Adult Learner: A Neglected Species*, Houston: Gulf Publishing, 3rd edition, p. 191, 1984

³ Sloan-C Effective Practices website: http://www.sloan-c-wiki.org/wiki/index.php?title=Category:Student-Generated_Content, [09.09.2007]

⁴ National Survey of Student Engagement, *Engaged Learning: Fostering Success for All Students – The 2006 Annual Report, 2006* http://nsse.iub.edu/NSSE_2006_Annual_Report/docs/NSSE_2006_Annual_Report.pdf, [09.09.2007]

are imprecise measures, the survey results suggest that there is a need and interest for learning strategies which promote student engagement.

Some of the examples in the Sloan-C Effective Practices collection illustrate how enabling students to generate content can increase student engagement. For example:

- Multiple studies indicate how the Real-Time Case Method blended learning approach pioneered by Jim Theroux at the University of Massachusetts has been highly effective in generating student engagement and satisfaction⁵.
- University of Connecticut psychology professor David Miller engages his students by podcasting a series of weekly recorded discussion meetings in which students help create the content by supplying the topical questions, participating in the discussions, and helping to produce the podcast. Survey and anecdotal data indicate that both the process and the product increase student engagement in the course⁶.

Improving Learning Effectiveness

Several of the effective practices featured in the Sloan-C collection also illustrate several ways in which student-generated content can result in effective learning. For example:

- Students in David Miller's psychology class reported that the process of making podcasts for other students enabled them to "gain more learning skills by discussing" in a way which is not possible in large lectures. Student evaluation results from Spring 2006 indicated that more than half of all respondents listened to at least one podcast, and about two-thirds of respondents found the podcasts to be moderately to extremely helpful⁷.
- The Minneapolis College of Art and Design's Online Gallery displays student and alumni work whose quality is *prima facie* evidence of learning effectiveness: MCAD students are able to create and display high-quality, in some cases professional quality work⁸.
- In mathematics education, problem solving exercises often teach "what to think" or "what to do" rather than "how to think", especially since students never get to design and solve their own problems in most mathematics courses. Since 1995, Northern Virginia Community College mathematics professor Richard Semmler has incorporated "practical application" exercises into his online calculus courses. This instructional strategy enables students to use higher order thinking skills (i.e. application in Bloom's taxonomy) more directly than it is possible from exclusively solving pre-fabricated problems⁹.

⁵ J. Theroux, C. Kilbane, The Real-Time Case Method: A New Approach to an Old Tradition, *Journal of Education for Business*, v79 n3, p163-167, Jan-Feb 2004; J. Theroux, Real-Time Case Study, 2004, <http://intra.som.umass.edu/theroux/about.html>, [09.09.2007]

⁶ Sloan-C Effective Practices description, http://www.sloan-c-wiki.org/wiki/index.php?title=University_of_Connecticut_-_Beyond_Lecturecasting:_Using_Podcasts_for_Discussion_and_Student_Content_Creation, [09.09.2007]

⁷ *ibidem*

⁸ Sloan-C Effective Practices description, http://www.sloan-c-wiki.org/wiki/index.php?title=Minneapolis_College_of_Art:_Online_Gallery_of_Student_and_Alumni_Work, [09.09.2007]

⁹ Sloan-C Effective Practices description, http://www.sloan-c-wiki.org/wiki/index.php?title=Northern_Virginia_Community_College:_Student-Generated_Math_%22Practical_Applications%22, [09.09.2007]

Creating Products of Lasting Value

Instead of ‘one-off’ products or events which have no life after the teacher has reviewed and assessed them, student products can contribute value as a lasting product in several ways - to future students (e.g. by creating learning resources), to society (e.g. by using student work to create actually useful products), and to the students themselves (e.g. via inclusion in portfolios; as a means to improve the learning experience). For instance, student-generated content has been used to create journal articles, news articles, and other publications, as well as professional quality products. Some specific examples:

- The value of Minneapolis College of Art and Design's Online Gallery in enabling students to display work for prospective clients and employers is also obvious. Although the digital renditions of student work are not always optimal representations, they succeed in conveying the general spirit of the work and would set the stage for in-person presentations to prospective clients¹⁰.
- The University of North Carolina-Pembroke's Online Encyclopedia of Criminal Justice (cjencyclopedia.com) uses student-generated content to create encyclopedia entries on topics pertaining to criminal justice and related fields. The result is a useful resource of lasting value for learning about criminal justice and related topics¹¹.
- The podcasts created by David Miller's psychology students were valuable to the students in the course throughout the semester. According to student feedback, the podcasts answered questions which students are most likely to have. The interactive, unrehearsed conversation format with repetition of lecture material was seen as an effective combination to help students clarify and understand the material in a way which was a "lot of fun"¹².
- Students in Real-Time Case Method courses offer actual solutions to real-life problems which the host companies implement for their tangible benefit¹³.

Why are good examples so hard to find?

The Sloan-C collection is intended to showcase effective practices which advance the practice of using student-generated content by demonstrating its effectiveness in engaging students, improving learning, creating products of lasting value, and producing other positive educational outcomes. Some of these practices demonstrate how student-generated content can be used as a primary content source; others demonstrate the value of student-produced original

¹⁰ Sloan-C Effective Practices description, http://www.sloan-c-wiki.org/wiki/index.php?title=Minneapolis_College_of_Art:_Online_Gallery_of_Student_and_Alumni_Work, [09.09.2007]

¹¹ Sloan-C Effective Practices description, http://www.sloan-c-wiki.org/wiki/index.php?title=University_of_North_Carolina_at_Pembroke_--_cjencyclopedia.com:_Online_Encyclopedia_of_Criminal_Justice, [09.09.2007]

¹² Sloan-C Effective Practices description, http://www.sloan-c-wiki.org/wiki/index.php?title=University_of_Connecticut_--_Beyond_Lecturecasting:_Using_Podcasts_for_Discussion_and_Student_Content_Creation, [09.09.2007]

¹³ J. Theroux, C. Kilbane, The Real-Time Case Method: A New Approach to an Old Tradition, *Journal of Education for Business*, v79 n3, p163-167, Jan-Feb 2004; J. Theroux, Real-Time Case Study, 2004, <http://intra.som.umass.edu/theroux/about.html>, [09.09.2007]

content, while others simply demonstrate the value of allowing students to produce original content in subjects which typically rely exclusively on expert-vetted content.

However, the examples in the current Sloan-C Effective Practices collection suggest that there are, should be, or could be, many more examples of how student-generated content is being utilized effectively. Unfortunately, although web search engine results provide hundreds of references to student-generated content and related terms, a closer examination of these search results yields precious few examples of student-generated content in online education. There is a lot of talk about student-generated content, but actual examples are hard to find, and even harder to find in online education. Why is it so difficult to find good examples? Terminology is an issue to some extent, which is no surprise to anyone who's had to deal with the absence of a common definition for terms such as distance education or online learning. "Student performance content"¹⁴, "learner-generated content"¹⁵, and "students as producers"¹⁶ are some of the other related terms currently in use.

The main reason it is difficult to find good examples, however, apparently is that there are relatively few examples to be found. If student-generated content engages students, improves learning, creates products of lasting value, and produces other positive educational outcomes, why is this the case?

One likely reason is that the expanded use of student-generated content runs counter to traditional educational practice. Teacher-to-student knowledge transmission is the principal mode of classroom interaction in traditional education, and pre-packaged content such as textbooks is designed to support this communication flow¹⁷. Certain limited forms of student-to-teacher interaction are permitted (e.g. hand raising, brief recitations, occasional classroom reports) and student-student interaction is sometimes supported to varying degrees as well. Most student-generated work products are derived primarily from student-content interaction, which is a secondary mode of interaction in traditional education; for example, students write papers or prepare presentations based on content sources other than the classroom (i.e. textbooks, library research, etc.).

It is customary to view print materials as the medium of instruction, in the same way that video, television, audiotapes, etc. are media which are used to transmit information or combined to create multimedia materials. In an important sense, however, it is the teacher who is the medium: textbooks have retained their relative primacy as content sources because they are seen as "substantive, vetted collection[s] of scholarly content"¹⁸. Thus the teacher's role is to transmit knowledge by serving as primary intermediary between content and student. Pedagogical models of education presume that students lack proficiency, relevant experience, and the ability to direct their own learning; students' needs and interests are largely irrelevant, as education is about what society has deemed important for students to learn.

By contrast, it is no coincidence that student-generated content is much more commonplace in adult and workplace education. As adult learning theorists have noted for

¹⁴ J. V. Boettcher, The Rise of Student Performance Content, Campus Technology, 2/28/2006, <http://www.campustechnology.com/article.aspx?aid=40747>, [09.09.2007]

¹⁵ e.g.: J. Cook, R. Haynes, C. Smith, C. Bradley, Mobile Learning Solutions: Using SMS, Learner Generated Content and Learning Objects, ALT Workshop Series, June 13, 2007, London Metropolitan University

¹⁶ e.g.: Students as Producers of Knowledge: A Popular Education Workshop, <http://www.srhe.ac.uk/networks.sen.asp>, [09.09.2007]

¹⁷ J. V. Boettcher, The Rise of Student Performance Content, Campus Technology, 2/28/2006, <http://www.campustechnology.com/article.aspx?aid=40747>, [09.09.2007]

¹⁸ ibidem

decades, adults engage in learning activities primarily to enhance their proficiencies¹⁹ and satisfy self-identified needs or interests²⁰. When teachers are involved in adult learning experiences, their role is to facilitate and guide rather than to transmit knowledge, since the learner's experience is presumed the richest learning resource²¹. So it is no surprise that active learning strategies and learner-generated content are commonly integrated into learning programs designed for adults.

Asking the question “why are there so few good examples of student-generated content?” is really asking the question “why is educational practice so hard to change?” Some observers believe that the influence of active learning philosophies such as constructivism, problem-based learning, and other related initiatives is changing the role of content in traditional education. There are also signs that Web 2.0 technologies and practices such as wikis, social networking, blogs, etc. are making a difference. Nevertheless, active learning practices are still the exception rather than the rule in education at most levels, and application of Web 2.0 tools is still often centered on expert-vetted content.

Expanding the use of student-generated content in online education

What will it take to stimulate a more widespread use of student-generated content in online education? In a way, this is much the same question as asking what it will take to stimulate a more widespread use of learning-centered education. The evolution of online higher education in the U.S. offers one possible answer. In the early- to mid-1990s, the Learning Outside the Classroom initiative funded by the Alfred P. Sloan Foundation was originally energized by the endeavor to understand and fulfill the societal need of increasing access to higher education (‘anywhere anytime, discipline of one’s choosing’, etc.). This initiative contributed significantly to a paradigm shift in the way that higher education delivers education in terms of using online technology to improve access. In less than 15 years, online higher education in the U.S. has grown from a negligible size to an enterprise which involves over three million learners each year and continues to grow rapidly at 20-30% annually²².

Although there are plenty of educators who support it, a comparable paradigm shift from teacher-centered to learning-centered pedagogical approaches has not happened. The experience of one of my clients illustrates why, during the past decade, this organization had developed a large number of web-based training (WBT) courses which required little or no instructor facilitation as a cost-reduction initiative to replace existing classroom offerings. A large, sustained, leadership-supported effort, the initiative was indeed successful in driving down instructional delivery costs by about one-third, and the organization had received several awards for its efforts. A few years ago, the organization launched a pilot project to develop instructor-facilitated online courses. Ostensibly, the initiative had two purposes: to increase learner access to select courses by making them available in an online delivery format, and to improve the quality of their courses by increasing opportunities for learners to develop collaborative and critical thinking skills. However, this initiative has floundered because there has been no comparable incentive to increase learner access or improve course quality.

¹⁹ A. Knox, *How Adults Learn*, San Francisco: Jossey-Bass, 1977

²⁰ M. Knowles, *The Adult Learner: A Neglected Species*, Houston: Gulf Publishing, 3rd edition, p. 31, 1984

²¹ *ibidem*, p. 30.

²² I.E. Allen, J. Seaman, *Making the grade: Online education in the United States*, 2006. http://www.sloan-c.org/publications/survey/pdf/making_the_grade.pdf, [09.09.2007]

These same factors explain why student-generated content has yet to make much headway in educational practice. It takes more than having enthusiasts, good ideas, or even being the right thing to do. The fact that use of student-generated content would improve the quality of learning is not in and of itself sufficient. There is no strong imperative to improve quality, in part because it costs money to do so. Despite the usual lip service, students, parents, legislators, and other stakeholders are not really asking for improved quality in any coherent fashion. Some students are perfectly content with the status quo and resist new learning approaches even if they would result in higher quality learning. In fact, some students might even see student-generated content as a form of offloading more work onto them, much as they sometimes resist attempts to move away from teacher-centered pedagogies for much the same (perceived) reasons.

Nevertheless, expanding the use of student-generated content in online education (and all education) may be an idea whose time has finally come. Besides the rise in the use of Web 2.0 (and eventually 3.0) technologies, the increased use of student-generated content fits well with emergence of **the prosumer**. A concept originally coined by Alvin Toffler²³, prosumers are individuals or groups which both produce and consume their own output, particularly their production in the non-monetary economy. The more recent book *Wikinomics* expands this definition to include co-innovation as well as co-production and consumption; customers self-organize to create and/or produce their own homegrown content²⁴. It is a relatively small step to imagine students as prosumers who co-innovate and co-produce their own learning content before “consuming” it. To the extent that this trend drives actual behavior, connecting student-generated content as a means of fulfilling the wishes of emergent prosumers could be an effective way to support the expansion of this practice.

Another societal need which may be emerging is the one to create people who can function independently in their various life spheres (work, other). Current traditional education is still organized far too much around teaching people to be good employees, to follow directions and produce for others’ specifications. Constructivist and related pedagogies support this goal quite well, but they are not yet connected to this goal in meaningful ways. This notion needs more development but offers another promising avenue to promote the value of student-generated content.

There will always be a prominent place for the role of educators as transmitting society’s values, culture, and to a certain extent knowledge. But in an educational system that was truly learning-centered, student-generated content would play a prominent role. For this to happen, student-generated content needs to be connected to a larger cause which highlights its importance in meeting emerging educational and societal needs.

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²³ A. Toffler, *The Third Wave*, New York: Random House, pp. 153-155, 1980

²⁴ D. Tapscott, A. Williams, *Wikinomics: How Mass Collaboration Changes Everything*, New York: Penguin, p.126, 2006

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