OPEN CONTENT AND LEAN TEAMS:
RETHINKING DISTANCE COURSE DESIGN

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ABSTRACT

The design of distance courses, especially online courses, is practiced in a variety of approaches. Especially within higher education, instructors working alone or with largely unstructured resources are the norm for developing new courses. With the continuous growth of available open content and the growing movement toward open access scholarship, free and accessible digital content has ushered in new opportunities for course-development. Course design models are not limited to craft (isolated instructor-driven development) or systems (a specialized team) approaches. The lean team approach is viable, wherein one or more subject matter experts partner with a small team of technology and design specialists. Lean teams can leverage the inputs of their subject matter experts and the free and accessible digital content ushered in by recent surges in open content participation. The results can be effective in comprehensively addressing learning objectives, containing costs, maximizing flexibility and reuse of course materials, and improving the overall learning experience for students. Issues of intellectual property, copyrights, faculty compensation, and academic cultural expectations are tied to such changes in development practices. This presentation considers these issues and reflects on the experiences of the Distance Course Design and Consulting team, a lean team tasked with course design at University of Hawai`i-Manoa since 2008. Re-usability, accessibility, and open resources have become central themes.

KEY WORDS

Open content, open educational resources, open source software, lean teams, distance education, distance course-development, distance course-design, systems.

1. Introduction

An institution's model for the design of online courses is critical to its success or failure in providing quality experiences to online students. Instructors, typically recruited for specific subject matter expertise and teaching or research potential, are too frequently tasked with design and development activities for which they have little knowledge, preparation, or interest [1]. This "craft" approach, where instructors build online courses with whatever resources and skills they have at hand, is countered by "enterprise" or "systems" developed courses at the opposite extreme. Enterprise developments are performed by highly specialized teams, sometimes without the direct involvement of specific instructors.

Each has relative advantages. Craft developments may be less expensive, especially in the short-term; but likely suffer from restriction to a single person's design and development capabilities. Enterprise developments, by employing teams of design and development experts, carry higher up-front costs, and may suffer from excessive standardization in the effort to serve multiple future instructors. They are also more likely to use consistent design, navigation, and use of multimedia – all of which can better support a broad student body [2].

2. Lean Teams

Fully specialized course design teams may use one or more experts for each technical area required to design and build an online course. For instance, the course plan may be lead by a project manager in conjunction with instructional designers and multiple subject matter experts. Development of video content may include one or more writers, producers, actors, videographers, and editors. Audio, text, and other content types might be created by similarly specialized professionals.

A lean team, in contrast, is composed of a limited number of members who are likely responsible for more than one function in course development. By reducing the personnel requirements, yet maintaining some specialization; the lean team may provide a more economical, yet effective approach to course design. In several such models; minimal roles include instructional designer, multimedia specialist, and subject matter expert [3] [4].

3. Open Content

"Open content" is a term encompassing content, which is freely available for re-use in educational contexts including use in online course-design. Sub-sets include open courseware, open educational resources, and open access publications.

The OpenCourseWare consortium is a worldwide community of universities and associated organizations "committed to advancing OpenCourseWare and its impact on global education." Members include MIT, whose OpenCourseWare project is frequently familiar to collegiate educators, and hundreds of others from around the globe. The consortium defines OpenCourseWare as "free and open digital publication of high quality university level educational materials... organized as courses, and often include course planning materials and evaluation tools as well as thematic content" [6].

Open Educational Resources (OER), according to the OER Commons, are "teaching and learning materials freely available online for everyone to use, whether you are an instructor, student, or self-learner." Examples include: full courses, course modules, syllabi, lectures, homework assignments, quizzes, lab and classroom activities, pedagogical materials, games, simulations, and more [7]. In addition to the OER Commons website, other highly useable resources for locating OER include Curriki (http://www.curriki.org), and Connexions (cnx.org). DiscoverEd (http://discovered.creativecommons.org) provides a search tool that works across OER Commons, Connexions, National Science Digital Library, and more.

Open-access (OA) publications are either cost-free, provide user rights to use and redistribute, or both. Open-access can be defined as literature that "is digital, online, free of charge, and free of most copyright and licensing restrictions" [8]. OA removes price and permission barriers from the reuse of quality research and publications. While much of the OA movement focuses on journal articles, open textbooks and other publications are also available. The Directory of OA Journals (http://www.doaj.org/), OAister (http://www.oclc.org/oaister/), and the Community College Open Textbook Collaborative http://collegeopentextbooks.org/ are good starting points to find such materials.

Open content simplifies the task of a course design team. By providing available resources that can be re-purposed in multiple contexts, a design team can reduce the scope of material that must be developed for a specific course. By providing any newly developed material as open content, design teams can encourage the cycle of collaboration.

4. DCDC – A Lean Team Example

The Distance Course Design and Consulting group is a lean team devoted to creating course-ware for the University of Hawai`i system campuses and some external partners (http://dcdcgroup.org/). The team is comprised of a project manager/instructional designer, two multimedia specialists, one educational technologist, one "art director", a half-time design assistant, and up to six half-time research and instructional design assistants. Together, this team works to develop about five courses each semester, under contract from a variety of internal and external clients. DCDC began under grant funding and is transitioning to fully self-supported financing during the 2010 academic year.

DCDC is both a consumer and creator of open content. Where possible, the team's work-flow identifies existing open content for re-purposing within their products. A recent course design exemplifying this approach is an online course in Molecular Biology, designed for University of Hawaii-Manoa's Center for Cardiovascular Research. This course; using content from MIT's OpenCourseWare project, University of Missouri-Saint Louis, Rice University; and others, is available for online review at http://ccrhawaii.org/.

Recognizing the impact and importance of open content to the cycle of collaboration and re-use, the team encourages clients to release their products as open content – providing pricing discounts to those who agree.

5. Conclusion

Lean teams provide an alternative approach, both to isolated instructors developing courses with little direct support, and to fully specialized teams developing courses into a highly regimented products. The availability of open courseware, open educational resources, and open access journals has made the lean team even more viable by reducing the necessity to develop course materials where quality open content already exists.

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