NGLC Wave 1 Pre-Proposal Application Form

Project Title:	Open Content Hybrid Core Business Courses and Marketplace
Project Short Title (25 characters):	Open Hybrid Core Business

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Institutional/Organizational Tax Status	Nonprofit, U.S.-based organization (includes U.S. public postsecondary institutions)
If you selected "other," please specify:	

For U.S.-based nonprofit entities, if you know the tax code designation under which your organization operates (e.g., 501(c)(3), 501(c)(_), U.S. Non-Exempt) , please provide it

Tax Code:	501(c)(3)

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If you have additional co-investigators to list, please upload a Word or PDF document referencing your application and providing the requested information for each.

Attach:

Institutions Committed to Participate

Institution Name:	Texas A&M University
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If you have additional participating institutions to list, please upload a Word or PDF document referencing your application and providing the requested information for each.

Attach:

Compliance with NGLC Terms and Conditions

Q1. [Please check each and every box to indicate your acceptance] On behalf of myself, my co-investigators, and the institutions that have committed to participate, I warrant that we have each read and understood the following and are committed to abide by their terms and conditions:

In the NGLC Wave 1 request for proposals (RFP) [http://bit.ly /nglc_rfp]:

Application Instructions
Selection Process
Conditions of Funding
Amount and Duration of Grants
Reporting
Appendix 1: Sample NGLC Grant Agreement Terms and Conditions
NGLC Intellectual Property Policy [http://bit.ly/nglc_ipp]
NGLC Conflict of Interest Policy [http://bit.ly/nglc_coi]

Challenge Areas

Q2. With which of the four NGLC challenge areas will your proposal engage? [Select all that apply]

Blended Learning
Deeper Learning and Engagement
Open Core Courseware

Q3. Which ONE of the four the intended NGLC student outcomes do you consider to be the primary focus of your proposal?

Open Core Courseware

Project Overview

Q4. Briefly describe your proposed project and how it relates to the intended NGLC student outcomes. (completion, persistence, content mastery, mastery of deeper learning outcomes)

5,000 characters maximum

Our consortium of colleges and universities, in partnership with open source textbook provider Flat World Knowledge (FWK), will undertake two complementary, scalable initiatives to reduce costs while deepening learning outcomes and increasing student persistence and completion. Together the two initiatives meet three of the four challenges: open core courseware, blended learning, and deeper learning and engagement.

1) Create an online Marketplace (commons) of open content where instructors submit richly interactive modules that either accompany a textbook or stand alone. The Marketplace leverages FWK's existing technology platform to house modules based on interactive multimedia. Modules are searchable, modifiable, re-mixable, vetted for quality through a market mechanism to ensure high pedagogical caliber, and free. With a push of a button instructors can download the modules, insert them into FWK's textbooks or into their campus LMS.

2) Create and diffuse hybrid courses constructed from open-content that are delivered by at least five institutions in the consortium, starting with an organizational behavior course and moving to economics and marketing. Courses are based on a "hamburger" model that deepens learning.

In 2009 the College of Business & Economics at California State University, Northridge (CSUN) redesigned a core course in organizational behavior into a 50/50 hybrid format based on modularized open content. Each semester 900 students take the course in large lecture hall format. The hybrid model relies on two principal components: (1) a three-pronged "hamburger" model of topic coverage and delivery; (2) open education resources consisting of core content provided by FWK and developed by a CSUN team of instructors.

Deeper learning and engagement is achieved in four ways:

Hamburger Method. The hybrid model uses a "hamburger" method of teaching in which a face-to-face component is sandwiched between two richly interactive online components to engage students and deepen learning. In the online Before-Class stage students complete readings and online activities to acquire knowledge and explore topics so they walk into class having already engaged with the material in meaningful ways. In the In-Class stage students interact with the instructor and peers face-to-face to clarify, apply and integrate material. In the After-Class stage students engage in projects and complete assignments designed to demonstrate mastery of the material and practice higher order learning skills. At CSUN we currently teach organizational behavior using this model.

Interactivity. Students interact with peers, instructors and content through forums and chat rooms. They create content collaboratively through the use of forums, glossaries and databases, and take questionnaires and quizzes to provide data for mid-course corrections. Instructors use clickers in class to gather student opinions and check for understanding in real-time.

Video. Video clips from contemporary sources (e.g., YouTube, movie and sitcom clips, TedTalks, NPR, PBS) are incorporated into many learning modules and bring content to life for undergraduates who lack work experience. Videos also serve as examples to illustrate theories and provide focus for case analysis and consulting projects.

Groupwork. Students work in virtual and face-to-face teams despite course size to achieve higher levels of engagement and deeper understanding of content than they do individually. Groups enable the course to "grow large while staying small." Group members use peer-evaluation to rate each other on teamwork skills and minimize "social loafing."

Open Courseware. We will leverage FWK's successful, existing technology

Scaling Potential

Q5. NGLC seeks proposals for solutions that have already been investigated in at least some meaningful way and shown to generate some relevant benefits. What is the current reach of the primary solution that you propose to scale? Be brief and numeric: numbers of students currently served, numbers of courses, numbers of institutions/campuses, etc.

500 characters maximum	Components of the Marketplace already exist. The hybrid course produced 20 modules that are ready to be uploaded. A consortium of 14 colleges and universities that wish to create content and advocate the FWK mission and model exists. FWK has created software that allows open content creation, revision and duplication, and will create a technology platform to house the Marketplace. The current reach of the organizational behavior course is 680 students per semester in one mega-course at CSUN.

Q6. If your proposal is funded, by how much do you intend to increase the reach and dissemination of the solution? Again, be numeric, using the same measures as for your previous answer:

500 characters maximum	The eventual reach of the Marketplace is the universe of colleges and universities. The hybrid model will extend across three disciplines to a dozen institutions. At CSUN this reach is 3,600 students per semester. The team will disseminate the model to the 23-campus CSU system, community colleges and beyond with the help of the FWK user base which already includes over 400 colleges and universities for the course targeted in this proposal.

Q7. Briefly, please discuss the immediate (i.e., within the term of the NGLC Wave 1 grant) and longer-term scaling potential of your proposed solution. What is the potential upside? What are the primary obstacles to be overcome or risks to be mitigated?

2,000 characters maximum	Within Wave 1 the Marketplace will scale to organizational behavior, economics and marketing across the consortium. Eventually the marketplace will scale to all disciplines. Within Wave 1 the hybrid organizational behavior course will scale across at least five universities in the consortium and eventually beyond. At CSUN the number of students served by the hybrid model will increase from 680 to 3,600 as economics and marketing come on board. Using lecture capture solutions the student-to-faculty ratio will increase from 150-1 to 450-1, enabling faculty to devote more time to small breakout sessions or elective courses.
	The primary benefits of this design are increased efficiency by reducing content reinvention, improved course content, improved lecture hall utilization, reduced textbook costs, and improved learning and retention through the hamburger model.
	The primary obstacles to be overcome include implementing the lecture capture systems, creating assessment centers for testing en masse, developing a shared hosting strategy and a robust technology platform for the Marketplace, ensuring contribution to and sustainability of the Marketplace, and providing incentives for faculty to participate. We believe faculty will develop, share and adopt open content if the infrastructure is available, if the technology platforms are easy and enjoyable to use, and if faculty are incented by recognition, compensation and convenience. Grant funding will be used to design systems that address and resolve these concerns.

NGLC Objectives

Q8. Which of the following descriptions best fits your proposal?

Our proposal targets primarily young adult learners under the age of 26 (i.e., such learners will be a majority of the population served).

Q9. Please check 'Yes' if your proposed solution will target high-enrollment, low-success developmental and/or general education courses—core, so-called "gatekeeper" courses—or similar courses in high-demand occupational programs such as business, criminal justice, information technology, and/or nursing and allied health.

                                                Yes

Q10. If you checked 'Yes' in the last question, list the course(s) you will target.

300 characters maximum   The target courses are core courses in organizational behavior, economics, and
                                        marketing across all campuses in the consortium.

Q11. Briefly discuss the outcomes you anticipate achieving by the end of the grant, and how they align with the NGLC outcomes of interest: scaling outcomes; student outcomes (completion, persistence, content mastery, mastery of learning outcomes); and cost-effectiveness outcomes. If your project receives NGLC funding, what would be the maximum (realistic, not theoretical) level of success you would expect to accomplish with NGLC funds? What would be your minimum expectations for success? What would be your most likely level of success? Please bear in mind that, if your application is selected, your answers here may be used to inform your project's eventual evaluation.

2,000 characters maximum   The Marketplace and hybrid model work in tandem to improve student outcomes
                                        by providing free, high-quality teaching modules to instructors for incorporation
                                        into courses that deepen learning through rich interactivity. Ultimately we expect
                                        these gains to translate into increased preparedness for subsequent courses as
                                        well as improved persistence and completion.

                                        The initiatives advance all four learning outcomes. The hamburger model,
                                        interactivity, video and groupwork improve content mastery and deepen learning
                                        through engagement with the material. Completion and persistence will be
                                        improved by increasing engagement with content, peers and instructors. The
                                        hybrid course is structured yet demanding due to numerous deadlines and
                                        learning modalities; students must therefore learn individual responsibility,
                                        teamwork, conscientiousness and time management skills to succeed. Interaction
                                        increases as students work in virtual groups. Instructors, freed from repeated
                                        lecturing, devote more time to smaller breakout sessions and student projects.
                                        The project will also increase efficiencies. Reducing seat time enables universities
                                        to use lecture hall space more efficiently and gives students more control over
                                        their schedules. The ability to utilize open-content from the Marketplace reduces
                                        cost to students and the need for instructors to "reinvent the wheel" and provides
                                        an ever-growing source of interactive content to improve course effectiveness.

                                        The maximum level of success we expect is to have the Marketplace up and
                                        running with content contributed by all 14 members of the consortium covering all
                                        three topic areas, and to have open-content courses in all areas being taught
                                        across all members. Minimum level of success is to have the Marketplace
                                        populated with organizational behavior content contributed and used by virtually all
                                        members of the consortium and to have the open content organizational behavior
                                        course taught by five members of the consortium.

Q12. Briefly discuss how your proposed plans, procedures, and activities align with the objectives and criteria detailed in the "Core Values and Criteria" and "Challenge Areas" sections of the NGLC Wave 1 RFP (i.e., both general objectives criteria and those specific to the challenge area to which you are applying). Address explicitly any objectives or criteria to which you cannot or will not conform, or that you believe do not apply.

2,000 characters maximum

The two initiatives proposed have the potential to yield the "disruptive change" desired by the NGLC grant. Using technology to amass open content and streamline course delivery across institutions can radically reduce costs and decrease redundancy while increasing innovation. The use of technology to leverage change in the course development and delivery process in higher education is reminiscent of the "business process re-engineering" movement of the 1990's. Such efforts were difficult precisely because they disrupted normal work routines. While not a perfect solution business process re-engineering ultimately increased efficiency as well as quality of output. The same can occur in higher education through the initiatives described above. However, the use of a pull-based, market-system will mitigate any negative aspects of re-engineering. In the end, students will be served more efficiently by creating a network of innovators who wish to be on the cutting edge of change rather than lagging behind, and who are rewarded for their efforts. A market-based system and appealing, user-friendly technology will ensure that instructors are incented to participate, thereby avoiding the pitfalls of many existing open courseware initiatives that eventually stagnate from lack of involvement and commitment.

Eventually the initiatives will add learner analytics to fully enable "mass customization" whereby students receive individualized attention on a mass scale. Once the Marketplace is up and running attention will turn to the development of pretests and online readiness surveys to tailor content to the learning needs of students and identify those who may find the hybrid learning environment challenging, and provide appropriate support. Student activity patterns from LMS and clickers will be assembled into a database and regression analysis will be used to predict the impact of engagement on long-term student performance, persistence and completion.

Evidentiary Support

Q13. In order to help us to evaluate your proposal fairly, please select the letter corresponding to the phrase below that best describes your primary proposed solution:

A learning solution showing substantial promise in the domain in which you intend to apply it, but requiring both additional evaluation and scaling.

Q14. What evidence do you have—direct or indirect, formal or informal—that your solution has the potential to achieve the transformative outcomes sought by NGLC? What evidence, if any, is still lacking, and how would you propose to acquire it in the process of scaling your solution using NGLC funds?

2,000 characters maximum

We have evidence that both initiatives have the potential to achieve transformative outcomes. First, FWK's open source model has proven successful. FWK publishes under an open CC license, provides free content online, and uses an automated publishing platform that enables instructors to remix, revise and redistribute content in multiple formats. FWK's user base has increased from 30 universities in 2009 to over 800 in 2010, and an estimated 50% of faculty customize their textbooks. New FWK technology enabling faculty to insert their own content, video and audio is in beta. All that remains is for FWK to adapt its existing platform to OER repository standards, add a search engine and Amazon-type review, rating and recommendation system.

Evidence that the hybrid model is achieving its goals also exists. Scores on quizzes and exams have increased and students show evidence of improved ability to evaluate and synthesize information, which we attribute to repetition, rich video content and increased opportunities to interact and apply the material. Moreover, student satisfaction is high. Students value the increased flexibility and interactivity, and say that multimedia exposure to the material helps them learn. Instructor satisfaction has also increased dramatically due to reduced lecturing and more time spent creating rich, reusable content and developing assignments that evaluate deeper learning outcomes.

Because the hybrid model has just launched we lack direct evidence that it improves student persistence and completion. We will gather such evidence by pooling student LMS activity data with performance and completion data collected by the university institutional research department to conduct longitudinal studies linking elements of the hybrid and open content design to student success. We are also encouraged by recent reports (Department of Education, 2010), which show that hybrid models can be more effective than traditional or online classes.

"Adoption, not Reinvention"

Q15. As noted in the NGLC Wave 1 RFP, a primary objective of this wave of funding is the elimination of redundancy and unnecessary reinvention through the wide-scale adoption of proven solutions. Briefly, discuss how your proposed solution and scaling plan will leverage existing resources—created by you and/or others—to avoid duplicating previous efforts and to break the grip of "not invented here." What interoperability standards or protocols will you observe, if any? How will you overcome formal and informal resistance to "outside" innovation in your target institution(s)? How will you make it easier for others to adopt, in turn, the solution(s) that you deliver?

2,000 characters maximum	Duplication and "not invented here" problems will be fixed by connecting instructors that teach identical core courses and leveraging the existing technology platform created by FWK which enables users to remix and modify open textbook content that is licensed under the Creative Commons Attribution-Noncommercial-ShareAlike license. This platform will be expanded to create the Marketplace repository for open content modules, thereby avoiding the high costs of creating a platform from scratch. We will observe interoperability standards and protocols such as IMS/LTI that will enable movement of content between FWK's platform and learning management systems such as Moodle and Blackboard. We anticipate minimal resistance to "outside" innovation in the consortium because many members are already advocates of FWK's mission, familiar with its business model, and/or users of its textbooks. There is clear recognition that FWK is an experienced, preeminent source for the provision of modifiable, open content.
	The Marketplace will leverage the diffusion of the hybrid model by creating a space for collaboration and feedback on peer-created content between members of the consortium and ultimately beyond. In addition to providing a space for "micro-publishing" the Marketplace will link instructors teaching the same courses and content into collaborative networks. Often the biggest barriers to online collaboration are the absence of a common goal and daunting technology. By rooting the creation of content in a common course, providing mechanisms for communication and seamless integration between FWK, users and campus LMS as well as Amazon-type usage metrics, peer feedback and recommendations, these obstacles will be overcome and barriers to collaboration will be removed.

Q16. If your project plans to make use of already established, open-licensed technology projects or platforms, please list the relevant project(s) here, along with the project's primary Web site and an authoritative URL at which NGLC staff can review the project's licensing information.

Project Name:	Flat World Knowledge
Main Project Website:	http://www.flatworldknowledge.com/
Project Licensing Info URL:	http://creativecommons.org/tag/flat-world-knowledge

Project Name:

Main Project Website:

Project Licensing Info URL:

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