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Program Information:

Program/Initiative Name: Skills for the Digital Earth MOOC
Category: Non-credit
Tuition/Fee per Person: Free
Number of Attendees: 1430
Program Length: 4 weeks
Program Funding Sources: Existing Marketing Budget for Geospatial Programs Program Director Name: Donna Gardner Liljegren, Ed.D.
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Write an abstract of the initiative describing its format, history, clientele, and purpose.
The School for Professional Studies (SPS) at Elmhurst College currently offers three geospatial programs: An undergraduate certificate in Geographic Information Systems, a graduate certificate in Human Geography for AP®, and a Master of Science and Graduate Certificate in Applied Geospatial Sciences. The program director for the college's geospatial programs wanted to pursue the development and offering of a MOOC (massive open online course) as a means of bringing global brand awareness to the programs and increasing enrollments. It was decided that partnerships in the offering would provide greater visibility for the MOOC by increasing marketing channels, reducing development time and costs, and providing a means by which to host the program.

The program director served as associate director of the Geospatial Technology Center for Excellence (Geo Tech Center), so the School for Professional Studies partnered with the Geo Tech Center to develop and market the MOOC: Skills for the Digital Earth. It was also decided that to host the MOOC, SPS would partner with Desire2Learn and use their Open Courses site. Content was enhanced through the use of ESRI's ArcGIS Online product, and evidence of competency achievement was facilitated by the use of CREDLY online badging.

The marketing for the MOOC focused on internet blasts and the use of social media. Both internal (faculty, staff, administration, alumni, students) and external distribution lists (National lists of Geographic Alliance Coordinators, AP® high school teachers and geospatial College faculty) were used to disperse information about the event. Additionally, Twitter, Facebook, and LinkedIn were utilized to provide information about the MOOC, and 22 industry, corporate, and educational websites allowed staff members to share information about the MOOC on them. The only paid advertising used to promote the course was the use of Facebook ads. Total marketing costs for Skills for the Digital Earth were $189.92. The Facebook ad received 637 clicks, at an average cost per click of $0.44.

The School for Professional Studies at Elmhurst College did not know what to expect when it decided to embark on the Skills for the Digital Earth project. Prior Open Courses offerings had averaged between 550-700 participants for other colleges, so the consensus was that 1,000 participants would be an

overwhelming success. The original goals for the MOOC were to enroll 700 participants in Skills for the Digital Earth, and, as a result of participation, to enroll one MOOC participant in one of the College's geospatial programs. A total of 1430 participants registered for the MOOC from 45 states and 80 countries. A total of 1727 badges were awarded. Ultimately, two new students were enrolled in geospatial programs as a result of having participated in the Skills for the Digital Earth MOOC.

Given the low development and marketing costs, the School for Professional Studies considers this first MOOC offering to have exceeded expectations, and, after a few revisions to the design and marketing plans, will re-offer the course in the Spring semester of 2015. While this was designed as a marketing initiative for the College's geospatial programs, it is clear from the feedback provided by the participants that the course provided a worthwhile educational experience as well, and has provided Elmhurst College with global recognition of its programs.

Explain how the initiative is innovative, unique, and contributes to the purpose of ICCHE.
The Skills for the Digital Earth MOOC provided the School for Professional Studies with a unique opportunity to provide a valuable educational experience that was actually a marketing initiative. The use of partnerships with the Geo Tech Center and Desire2Learn's Open Courses, in addition to the resources provided by ESRI's ArcGIS Online and CREDLY badges, helped SPS to provided participants with the opportunity to demonstrate proficiency of knowledge and skills corresponding to the Geospatial Technology Competency Model (GTCM) developed by the U.S. Department of Labor Employment and Training Administration (DOLETA) in partnership with the Geo Tech Center. The course outcomes of Skills for the Digital Earth aligned with the GTCM competencies, and, through the use of CREDLY badges, participants could share evidence of their achievements with people outside of Elmhurst College, such as their employers, future employers, and teachers.

This offering was unique in that, through the use of partnerships, SPS was able to host a MOOC offering that did not require an unreasonable amount of development time or expense but was still able to reach a global population. The MOOC was developed in four months at a cost of $5,500, which included the hosting services provided by Open Courses. The MOOC reached 1430 participants in 48 states and 80 countries, providing programmatic and brand exposure for Elmhurst College around the globe. Additionally, a class of high school students in Texas was identified as participating, so the SPS team sent them all Elmhurst College t-shirts, ensuring that outside of Houston there is now a group of students who've heard about a small, liberal arts college in northern Illinois.

Explain the outcomes of the initiative, including its significant impacts on participants, the institution, and the community.
A total of 1430 participants registered for the Skills for the Digital Earth MOOC from 45 states and 80 countries. Of those, 58 (4%) withdrew from the course.

- 564 participants completed at least one module (39.5% of total registrants)
- 217 participants successfully completed all 7 modules scoring 80% or higher on the module quizzes (15% of total registrants)
- 266 participants successfully completed modules 1-6 scoring 80% or higher on the module quizzes (18.6% of total registrants)

A total of 1727 badges were awarded:

- Module One – Fundamental Geography Knowledge and Skills – 314 (22% of total registrants)
- Module Two – Fundamental Computing Skills of Geography – 302 (21% of total registrants)
- Module Three – Creative Thinking in Fundamental Geography – 262 (18% of total registrants)

- Module Four – Problem-Solving and Decision-Making in Geography – 237 (16.5% of total registrants)
- Module Five – Geographic/Geospatial Tools and Technology – 223 (15.5% of total registrants)
- Module Six – Business Fundamentals of Geography/ Geospatial Environments – 220 (15% of total registrants)
- Module Seven – Abilities in the Geospatial Filed – Advanced Digital Earth – 172 (12% of total registrants)

Skills for the Digital Earth completion rates exceeded Elmhurst College expectations as well as national averages.

Elmhurst College staff members were able to identify and confirm that two high school classes were attending the MOOC, one in Davie, Florida and the other in Lubbock, Texas. The faculty member in Lubbock reported that she had 31 students enrolled in the course. Of those students, six successfully completed all seven course modules and 12 successfully completed modules one through six.

As of 8/5/14, nine MOOC participants had completed applications to attend Elmhurst College geospatial programs, and two had been admitted.

Describe how the initiative was evaluated for its effectiveness, and explain/illustrate the ease of replication for use by other institutions.

The School for Professional Studies, in partnership with the Geo Tech Center, developed two surveys of participants. The first survey, made available at the opening of the MOOC, asked participants to identify their locations and occupations. Fifty-three percent of the registrants completed this survey. From their responses we were able to do location and occupation analysis.

Participants were located in 45 states (Illinois, Colorado, Indiana, California, and Florida had the most participants) and 83 countries (the United States, India, Pakistan, Canada, and the United Kingdom had the most participants).

Respondents provided the following occupation information:

- 29% - employed in a geoscience-related field
- 19% - working in a geospatial information systems position
- 19% - students
- 17% - students
- 11% - employed in other fields
- 5% - unemployed

The second survey asked for more detailed demographic data, as well as their level of satisfaction with the learning experience. Only 15.5% of the registrants completed this survey. From this we learned that 82% of the respondents had earned a bachelor, master, or doctoral degree. Sixty percent of respondents were between 20 and 39 years of age. Seventeen percent had learned about the MOOC by word of mouth, 12% from social media, and 11% from Elmhurst College emails. Seventy percent indicated that, as a result of participation, they were more likely to consider a geospatial career, and 98% indicated that they would recommend the course to others.

The answers to the open-ended questions on the second end-of course survey, as well as internal debriefings, provided helpful information about content, facilitation, and communication within the course, and a basis for making modifications for a second offering.

The program is a model for using partnerships for rapid development and cost-effectiveness and could easily be replicated by other colleges for other disciplines. The use of partnerships facilitates MOOC hosting, marketing, and content development so that, in particular, small colleges with limited resources may use MOOCs in ways which will be most beneficial to them. In this case, using the MOOC as a marketing tool was successful in growing brand awareness and adding enrollments to the existing geospatial programs at Elmhurst College.

Describe the human and financial resources available for this initiative.
One of the advantages of taking this approach to MOOC development was that SPS was able to complete the project using existing marketing, course development, and course facilitation funds. The entire cost of the program was less than $10,000, and existing faculty and staff were used for content and technology development, as well as course facilitation. (The following staff and faculty members comprised the development and delivery team: SPS Director, Online Center, SPS Marketing Manager, SPS Faculty Developer, GIS Program Director, 7 GIS Faculty Members, Office of Information Services Web Application and Information Specialist.) As a result, SPS is exploring opportunities to partner with other organizations in the marketing and development of MOOCs in other disciplines with the same goal: To advance the awareness of Elmhurst College degree programs to a global audience resulting in increased enrollments.

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