Society for the Advancement of Information Systems
MBAA Abstract March 27-29, 2019 - Chicago

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Title: Leveraging the maker movement for occupational therapy and computer science education: An interdisciplinary approach to adopting emerging 3D printing technologies.

Abstract

Although many college technology centers have offered 3D printing as a service or available technology, there is a lack of information on course-integrated programs for 3D printing in which the technology center played a primary role. Therefore, faculty and students at the College of St. Scholastica's Department Computer Information Systems (CIS) in conjunction with faculty and students from Scholastic's School of Health Sciences began exploring 3D printing for inclusion in the occupational and physical therapy curriculum. The goal of this project was to educate occupational and physical therapy students and faculty about the potential applications of 3D printing in healthcare and provide hands-on experience, while increasing collaboration between CIS and occupational and physical therapy. Students' tasks included designing and creating a 3D-printed assistive device as part of their course. Students were able to successfully print assistive devices, demonstrating the feasibility of 3D printing in a health sciences curriculum. CIS faculty and students involved with this project reached approximately 78 students and 8 other faculty members. 3D printing at the College of St. Scholastica continues to evolve and expand; the trial 3D printing course is being reviewed for formal adoption into the occupational therapy curriculum, and additional funding for 3D printing technologies is currently being allocated by the CIS and School of Health Sciences administration.