Chapter 9
An Interface Design Approach to Encouraging Online Contributions among Underrepresented Youth

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ABSTRACT

Research has revealed how actively contributing to online communities can build technological competencies related to 21st century learning and build identities as creators. However, recent studies have also shown that inequities exist in terms of who is participating. Addressing this problem, this chapter foregrounds user interface design as an important mediator that shapes how certain populations of youth can take advantage of learning opportunities. Focusing on the use of an online social learning network in an urban middle school of predominantly Latino students, the authors present the iterative design of a feature intended to encourage student contributions. The authors argue that there is a need to attend to the user interface design of online social learning systems as a way to create opportunities and to encourage youth from underrepresented groups to participate fully.

INTRODUCTION

Research has revealed how actively contributing to online communities can build technological competencies related to 21st century learning; for example, by building new media literacy skills, technological fluency, and identities as creative producers. However, recent studies have also shown that inequities exist in terms of who is participating. One way of understanding and addressing these inequities is to look at the opportunities youth have to participate in online communities and the ways in which the design of online systems supports youth to contribute and become active participants. As one aspect of the complex ecology of experience that makes it possible for underserved youth to persist along pathways towards careers in computing, a critical look at user interface design as a mediator is needed.

In this chapter, we describe the iterative design of iRemix, an online social learning network for use in formal and informal 5-12 grade learning contexts to foster sharing and interaction around youth-created digital media projects. We describe the design of the *reactions* feature, which emerged through a collaborative research and development process with teachers and students in a predominantly Latino middle school in an urban location. Reporting on two design iterations, we focus on the research questions:

1. How do students interact around submitted digital artifacts online, and
2. How can we design features to encourage contributions to the online learning community?

With the fundamental concern for promoting equitable participation in online communities among underrepresented populations of youth as a way to build 21st century skills and identities as creators, this study contributes a case of co-design with Latino students. It highlights how decisions about the design of social learning network interfaces that are meant to build learning community should attend to cultural norms and pedagogical goals.

BACKGROUND

Online Contributions and 21st Century Skills

While exact definitions vary, efforts to define 21st century skills are similar in their attention to intrapersonal skills such as creativity, and interpersonal skills such as communication, critique, and collaboration (Partnership for 21st Century Skills, 2006; Pellegrino & Hilton, 2013). Recent K-12 standards for learning reflect these

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