Making the Case for HCI Education: Developing and Sustaining Competence in Global HCI Education

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ABSTRACT
User experience (UX) design is rapidly expanding as a field and discipline, drawing practitioners from a range of educational backgrounds, ensuring the field’s diversity and multi-disciplinarity. However, this diversity comes at the expense of a shared and stable sense of disciplinary identity as is enjoyed by many other practicing fields of design or engineering. In this talk, I will situate current interest in developing a “living curriculum” in relation to scholarship on HCI education from the 1980s and 1990s, building upon these multiple conversations regarding core knowledge and pedagogical practices to propose a call for renewed scholarship on curriculum, instructional strategies, pedagogical approaches, and research-practice relationships fostered by HCI programs. I report on almost a decade of my own scholarship of HCI and UX learning practices, bridging three unique contexts: 1) the development of a novel undergraduate program in user experience (UX) design at Purdue University; 2) facilitating study abroad experiences in digital civics at Open Lab, Newcastle University; and 3) bridging teaching and learning practices through the development of a dual Master’s degree with Purdue University and Beijing Normal University.

KEYWORDS
HCI education; design pedagogy; cross-cultural learning; instructional strategies.
INTRODUCTION

As the field of HCI has consolidated as a discipline, efforts have been made by academicians to document current educational practices—largely at the curriculum level. One of the first such efforts was completed in 1992, resulting in the SIGCHI Curricula for Human-Computer Interaction report [5]. At this time, the task force recommended against the introduction of undergraduate HCI education programs beyond a specialization level, due to the relatively large amount of disciplinary knowledge needed to contextualize HCI knowledge. The most recent study addressing the state of HCI education was completed from 2011-2014, resulting in the SIGCHI Project on HCI Education Report. In this report, a growth in graduate programs and also the creation of undergraduate programs was revealed, resulting in a recommendation for the introduction of a “living curriculum” that could be used as a resource by HCI educators. Churchill, Bowser, and Preece [1] hypothesized that this living curriculum “will benefit the entire HCI community by helping HCI to maintain, and even extend, its legitimacy as a field of endeavor” (p. 73).

In the past two decades, little scholarship has addressed HCI pedagogy, even as engineering and design have invested heavily in this area. While the presence of some reports represents a disciplinary interest at the organizational level in HCI pedagogy, there has been only a relatively limited discussion of HCI pedagogy in the field’s scholarship efforts. Most efforts have been course or “canon” focused, with relatively little scholarship that describes and documents best practices for program level design and development of holistic and ongoing disciplinary competence [3]. In particular, while there has been a relatively steady interest represented through panels and workshops over the past two decades, these efforts have generally not resulted in the systematic study and dissemination of instructional best practices or curricular models. This appears to be largely due to the rapid evolution of the field. As an example of one facet of HCI practice that I will discuss in this talk, User Experience (UX) design has rapidly expanded as a field and discipline, drawing practitioners from a range of educational backgrounds, ensuring the field’s diversity and multi-disciplinarity. However, this diversity comes at the expense of a shared and stable sense of disciplinary identity as is enjoyed by many other practicing fields of design or engineering.

A wider range of publications focusing on HCI or UX pedagogy has begun to emerge, but the majority of these publications have focused only on the content and disciplinary areas of expertise needed by students, representing an extension of the task force reports referenced above. However, relatively few scholars have addressed the holistic complexity of the learning environments that would be needed for academic and professional success, although there are rare examples in which learning in an HCI studio have been addressed [2][6]. Thus, while there is demonstrated interest in this body of literature in documenting what content should be taught, there is little knowledge of how to inculcate lifelong learning skills in an evolving discipline, which necessarily encompasses strategies for knowledge transfer and translation. While there has been relatively little pedagogical scholarship within the HCI community, scholars in other domains have extensively studied the
patterns of design behavior needed for professional success in a variety of disciplinary contexts. In addition, other new contexts for design practice such as service design, system design, and transition design may be effectively mined for curricula, instructional paradigms, and academic/industry relationships. Educationally-focused scholarship, engaging with pedagogical concerns at the nexus of design, technology, and engineering education has revealed patterns of knowing, thinking, and acting that have substantial relevance for the development of UX ability.

In this talk, I report on almost a decade of my own scholarship of HCI and UX learning practices, bridging three unique contexts:

1) Crafting Undergraduate UX Education at Purdue University
In 2015, I joined a team of faculty to develop a novel undergraduate program in (UX) design at Purdue University [6]. We created a pedagogical model of integrated and industry design studios in order to engage students with lifelong learning practices and disciplinary, using the “hidden curriculum” as design material to encourage the development of design and UX competence.

2) Engaging in Digital Civics Work at Open Lab, Newcastle University
Leveraging research partnerships with Open Lab, Austin Toombs and I have led study abroad experiences to engage undergraduate and graduate UX students in digital civics work [4]. In doing so, we have broadened opportunities for engagement in UX work, and encouraged students to develop a cross-cultural and participatory framing for HCI research and practice.

3) Creating a Dual Master’s Degree with Purdue and Beijing Normal University
We have identified opportunities to bridging teaching and learning practices in UX through the development of a dual Master’s degree between Purdue University and Beijing Normal University. In doing so, we have identified opportunities for cross-cultural collaboration in industry and educational practices, bridging evolving practitioner needs in both cultural contexts.

Drawing on these global contexts for HCI and UX learning, in conjunction with continued practice-led research exploring the rapid evolution of UX practices “on the ground,” I argue for renewed and substantial scholarship on HCI educational practices, building upon trends in the literature and scholarship from related fields. I will situate current interest in developing a “living curriculum” in relation to scholarship on HCI education from the 1980s and 1990s, building upon these multiple conversations regarding core knowledge and pedagogical practices to propose a call for renewed scholarship on curriculum, instructional strategies, pedagogical approaches, and research-practice relationships fostered by HCI programs. I propose that this increased interest in scholarship of teaching and learning will engage HCI educators and practitioners in the development and sustainment of designers’ competence, ensuring the current and future health of the discipline.
REFERENCES


