Chapter 59
Establishing Academic-Industry Partnerships:
A Transdisciplinary Research Model for Distributed Usability Testing

Amber L. Lancaster
Texas Tech University, Lubbock, USA

Dave Yeats
Indeed, Austin, USA

ABSTRACT

Emphasizing a transdisciplinary research model for distributed usability testing, this article offers a case study for establishing successful academic-industry partnerships. The authors describe the collaboration process between the co-investigators in this partnership: the UX researchers, the user participants, and the stakeholders at the industry company. The authors explain how they used the transdisciplinary research model to write a winning proposal for collaboration and then highlight how the benefits of a transdisciplinary research model were realized in practice. The implications of the authors' findings support developing UX curriculum and pedagogy in ways that emphasize real-world application tied to transdisciplinary research teams and formal, distributed usability testing.

INTRODUCTION

Usability research, at its core, is transdisciplinary. The field of usability research recognizes the need to engage experts who are more familiar with the artifacts under study than the usability researchers themselves. In this way, the participants in a usability study (the target users of an artifact) are not research subjects; they are co-investigators. Usability texts suggest reassuring participants in a usability study that the participant's role is to help researchers uncover problems with a specific artifact and that the object of study is not the participants themselves (see Barnum, 2001; Barnum, 2010; Dumas & Redish, 1999; Nielsen, 1994; Rubin & Chisnell, 2008). This reassurance practice alleviates the concern that

DOI: 10.4018/978-1-7998-3016-0.ch059

some participants have of being tested or evaluated in a lab-based usability setting, but it also serves to set up the partnership between the usability researchers and the participant in a study.

Furthermore, usability researchers comprise a team of not only UX research experts and participants in a usability study, but of also a transdisciplinary team of stakeholders who play a crucial role in the co-investigation process of usability testing artifacts. As primary examples, a company's internal work units invest a great deal of resources in developing, marketing, and supporting products for end users. For instance, stakeholders from a software company's diverse internal work units (such as software developers, product managers, technical writers, legal professionals, and marketing) offer UX researchers invaluable insight about a product, its end users, and use scenarios and problems that impact the overall user experience. As co-investigators on the UX research team, these stakeholders bring perspectives from disciplines other than UX and strengthen the UX investigative process by offering criticisms and identifying internal constraints that may also affect the user experience; thus, together, UX researchers, participants in a usability study, and stakeholders are better able to solve shared problems with the overall user experience tied to a company's products.

Despite the transdisciplinary nature of usability, many UX academic programs often fail to emphasize transdisciplinary research models that emerge with usability partners and the ways that transdisciplinary research strengthens investigative processes and outcomes (such as co-discovery of distributed usability issues across a network of artifacts that have shared meaning to all those involved in development, support, and use). Frequently, UX academic courses reside in technical communication (TC) programs that also contain a great deal of knowledge about what makes a good user document. However, TC courses tend to devote a component to audience analysis and testing documents with users, but rarely do these components take on the scope and depth that a collaborative transdisciplinary research model of distributed usability testing might. Some recent articles have highlighted the benefits of collaborative models, such as the Collaborative Prototype Design Process (CPDP) (Andrews et al., 2012) and apprenticeship and experiential approaches (Getto & Beecher, 2016). However, TC programs do relatively little work in comprehensive, formal and distributed usability testing that emphasizes collaboration situated in the transdisciplinary nature of usability—illustrating a gap in UX curriculum and pedagogy in TC programs.

To address this gap, this article presents a case study of an academic-industry partnership that practiced a transdisciplinary research model that, the authors argue, offers a more comprehensive approach for TC graduate students to learn formal and distributed usability that mirrors the transdisciplinary nature of usability. In applying the transdisciplinary research lens to usability, the authors hope to bring in a deeper understanding of the philosophy of usability research. In many cases, usability research is referred to as "user testing" because of its focus on incorporating users in the process of testing an artifact. However, this shorthand for usability research often leads to a misunderstanding that usability research tests the users of an artifact and omits the many stakeholder-contributors in the investigative process. The transdisciplinary approach, the authors have seen, produces better results for finding usability issues distributed across a network of artifacts and elevates user/participants and stakeholders to a place of co-investigator and partner in the research rather than as a test subject or client whom academic UX researchers serve. It is the authors' hope that their experience will be a calling to UX academic programs, especially in TC, to embrace a transdisciplinary research model for distributed usability testing as the standard.

The following article describes the collaboration process between the authors' academic research team and a software producer. In the first section, the authors detail the rationale for distributed usability testing of software support documentation and the initiation of the collaboration process and how the academic research team used the transdisciplinary research model to write a winning proposal for col-