Transgressing Ideologies of Collaborative Learning and Working Spaces

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Abstract: This paper offers a theoretical contribution to CSCL by foregrounding the notion of place as elaborated in humanistic and cultural geography (Creswell, 1996), where place is defined by ideology and practices that produce, monitor and reproduce its boundaries. Examining the notion of place as both an element in CSCL tool design and a level of analysis for CSCL (Stahl, 2012), we discuss its role in the emergent design and development of a CSCL application for teachers, university students and researchers. The discussion in this paper serves as a first step in articulating how (1) CSCL tools can transgress and thus question official learning and working places and (2) how transgression can foster re-ordering of places and their practices.

Introduction

The following paper offers a theoretical discussion surrounding the iterative design and development process of a computer-supported collaborative learning and teaching application for educators. It makes a contribution towards building a theory for CSCL (Stahl, 2004) by adding an additional "plane" or unit of analysis to those that have been traditionally examined in the context of CSCL (Stahl, 2012). In particular, we are theorizing the design of CSCL for its less explored capacity to transgress, i.e., cross boundaries and ideologies of physical places and their practices. To do that, we foreground the concept of place as elaborated in humanistic and cultural geography (Cresswell, 1996; Tuan, 2001). These conceptions stress place not only as a deeply complex human element, but also as "the basis for human interaction" (Cresswell, 2015). According to Cresswell (1996), place is,

> produced by practice that adheres to (ideological) beliefs about what is the appropriate thing to do. But place reproduces the beliefs that produce it in a way that makes them appear natural, self-evident, and commonsense. We are silent in libraries, and by being silent in libraries we contribute to the continuation of silence. Thus places are active forces in the reproduction of norms—in the definition of appropriate practice. Place constitutes our beliefs about what is appropriate as much as it is constituted by them.

Thus, place as an additional level of analysis or theoretical lens, allows us to examine and question established (normalized) structures that rely on collaboration. Our thinking behind the design of a software application that relies on collaboration between university and school provides the background for this discussion. Moreover, we emphasize and theorize place not only as a unit of analysis, but also simultaneously as an important design element of CSCL tools that seeks to link structurally and ideologically separate places. In our case, over the years of development, we have discovered that the iterative design involving researchers, programmers, teachers and students, pushed our thinking about technology integration, design, and collaborative learning across places and their designated practices. As a first step, instantiated by this paper, we are articulating the design process and thinking involved in transgressing places of learning and working.

Significance

Notions of place and relationships between places where learning and collaboration occurs tend to be less visible aspects of CSCL tool design. Perhaps, even less visible are the links between online environments and places such as schools or universities. Again, the concept of place used here is not simply defined by an architectural structure or location, rather by practices that engage with and produce certain values (i.e., ideologies) through them. Our goal is to apply the notion of place as a "way of seeing" (Cresswell, 2015) two related places and their practices (i.e., places and their ideologies), namely teacher preparation programs at universities and schools. We suggest that such a move can open up and influence the design process when examined in terms of both existing and absent connections between places. In our case, the design of our software application has been informed by places and their practices deemed appropriate for learning and those places typically associated with the notion of work. Ultimately, for us, this division of learning and working

places represented a recurring problem hindering the successful use of the software (see next section). It focused our attention on distributed learning across time and place and the need for ongoing access to collaborative spaces that transgress traditional understandings of learning and working. Consequently, we started conceptualizing collaboration and design at the level of place, i.e., between ideologies associated with institutions that engage in training and working. Such a theoretical move parallels views of learning as a socially and culturally distributed process amongst individuals, practices, tools and environments, as distributed expertise and cognition (Barron & Bell, 2016; Brown et al., 1993; Hutchins, 1995a,b; Nasir, Roesebery, Warren & Lee, 2006; Rogoff, 1995; Pea, 1993; Stahl, Koschman & Suthers, 2014), while highlighting ideological dimensions of the connection and interaction between places. Hence, the design of our CSCL tool involves thinking about what defines places, about established beliefs and practices that give and maintain their meaning, about their boundaries and their transgression.

The CSCL application

Over the last 6 years we developed a software application, *ibestt* (Integrating Behavior Support and Team Technology), to support educators in elementary and middle school settings. *ibestt* was built to assist teachers in collaboratively addressing challenging behaviors in their classrooms. Given inherent complexities within classroom environments, the software design had to account for both rigor and flexibility within the online and offline environments it bridges. Although, *ibestt* helped educators implement behavior supports to some extent, teachers and school teams were often not successful, which ultimately lead us to a design that grapples with the notion of place. Our analysis of *ibestt* use over the past several years is consistent with decades of findings in the school-based behavior intervention research literature: many educators struggle with the complexity of the support process and the applied behavior expertise that is required to provide appropriate and positive behavior interventions. To address these challenges, a new iteration of the application includes asynchronous online coaching interactions between team members and between behavior experts and novices. Simultaneously, we began to hypothesize that team success is influenced by the separation of training, learning and working practices in the context of teacher education, disrupting expertise development and collaborations. This led us to consider place as a contributing element in collaborative learning. As a result, we are presently working on using *ibestt* to connect university teacher-preparation programs with school districts and their communities. This place-oriented design will enable *ibestt* to become a tool that accompanies teacher candidates through their education into their work environments, simultaneously bridging ideological and physical boundaries between traditionally separate learning spaces, i.e., between learning, training and work. The emerging software design frames teacher preparation as a non-linear but continuous process, as an apprenticeship, conflating learning places and those associated with professional practice.

Conclusions

We wanted to take a first step to emphasize and articulate place as a design element in CSCL, in particular the design of computer technologies to question places and their practices. There are different reasons for the absence of place in discussions of CSCL. Most of the time it is a matter of a different focus, yet places and their ideologies are often invisible and unquestioned, i.e., they reproduce themselves through the practices that give them meaning (Cresswell, 1996). What makes place a distinct design element worthy of a separate discussion in the context of developing a theory of CSCL (Stahl, 2004) is that it provides a different entry point for discussing higher-level interactions that contribute or hinder learning. Hence we suggest that the interactions or collaborations occur at a level of place and its ideology, in our example, between university teacher education programs and schools. Places are defined by practices, their reinforcement and reproduction. Hence connections between places link and transgress practices and ideologies. What is of particular interest to us are the interactions and thinking that is made possible by CSCL software, between places in which learning and working takes place. The design process was informed by the interactions between researchers, designers and practicing teachers, i.e., interactions between educators and their particular places. These multiple-year long exchanges, data analysis, and iterative design revisions lead us to the current conclusion that places and their boundaries impact learning and working, that the attention to and transgression of these boundaries can be an essential part of the design and solution process.

What we suggest here is that there is value in attending to place as an element that shapes the boundaries between definitions of learning and working. The often presumed independence of spatial, local or sociopolitical constraints associated with CSCL practices and online environments contribute further to the obscurity of place as an ideological construct. As we are developing the application, we are starting to conceptualize the relationships between learning, working and place. Undoubtedly, CSCL is not only about sharing knowledge and collaborative practices (Stahl & Hesse, 2009), but also about questioning, reconstructing

and sharing places where learning and work takes place. Consequently, the developing software design discussed here is not only an attempt to share but to shape infrastructure of these spaces. Connections between places traditionally associated with education involve not only close attention to social aspects of learning and interaction, but also to politics and ideology of place as a design element.

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