ABSTRACT

Users should be involved in information technology (IT) artifact development, but it is often difficult and rare, especially in the development of commercial IT artifacts for external use. This paper critically examines discursive construction of user involvement in academia and in the IT artifact product development industry. First, three academic discourses on user involvement are identified. Then, discursive construction of user involvement is explored in four IT artifact product development organizations, in which user involvement is indirect and labeled as usability work. Five discourses on usability work are identified. They are related to the academic discourses on user involvement, and some of them are criticized (Asaro, 2000) as “forms of technological colonialism,” merely “silencing the users” instead of “giving them a voice.” It is recommended that especially the human-computer interaction (HCI) community should carefully reflect on what kinds of discourses on user involvement it advocates and deems as legitimate.

Keywords: discourse; human-computer interaction; usability work; user involvement; user participation

INTRODUCTION

This paper critically examines discursive construction of user involvement both in academia and in industry; more specifically, in IT artifact product development organizations, developing commercial IT artifacts for external use. Therefore, the focus is on the development context, a central research area in both information systems (IS) (Lyytinen, 1987) and HCI literature (Grudin, 1996). The focus is limited to the product development context (as contrasted with custom IS development), which is a less studied context in IS research, but is the context in which the field of HCI emerged. In product development, commercial IT artifacts are typically developed for a large user population in a situation in which the users might be not known until the product is in market (Grudin, 1991a, 1991b; Keil & Carmel, 1995; Symon, 1998).

However, the product development context should also be considered a critical, even
though a very challenging, context for user involvement. IT artefacts, whether developed in a custom IS or product development context, always condition, enable, facilitate and shape social practices. Altogether, they constitute the rules and resources available for human action (Grint & Woolgar, 1997; Orlikowski & Robey, 1991; Suchman & Trigg, 1991). Also, HCI literature highlights that IT artifacts impose new ways to work, which may be only implicitly designed, but anyhow delivered through the solution. However, an explicit redesign should always be carried out (Beyer & Holtzblatt, 1998; Cooper, 1999; Rosson & Carroll, 2002). Also in the product development context, development—explicitly or implicitly—constitutes the boundaries for the users’ work practices, and in constituting the boundaries, an interest in the users seems critical.

Indeed, it has been widely accepted in both IS and HCI literature that users should be involved while developing IT artifacts. Participatory Design (PD) especially has been influential in emphasizing active user participation (Greenbaum & Kyng, 1991; Schuler & Namioka, 1993). In IS research, user participation has been a central topic for decades, currently legitimately labeled as an “old, tired concept,” which, however, needs revisiting (Markus & Mao, 2004). The field of HCI has addressed the importance of user involvement in approaches such as usability engineering (UE) and user-centered design (UCD) (Bannon, 1991; Cooper & Bowers, 1995; Gould & Lewis, 1985; Karat, 1997). However, in HCI, user involvement has traditionally been accomplished by “representing the user” in development (Cooper & Bowers, 1995). This paper focuses on the rhetoric on “representing the user” in IT artifact product development organizations. The responsibility to “represent the users” is assigned to a group of specialists called, for example, usability/human factors/UE/UCD specialists in the literature (e.g., Aucella, 1997; Bias & Reitmeyer, 1995; Bodker & Buur, 2002; Borgholm & Madsen, 1999; Fellenz, 1997; Grønbak et al., 1993; Mayhew, 1999b; Mazrek & Rafeld, 1992; Tudor, 1998; Vredenburg, 1999). The “representation work” carried out by the “user surrogates” is labeled usability work, in which user involvement is informative or consultative (Damodaran, 1996) at the most. Users comment on predefined design solutions or act as providers of information and objects of observation, but they do not actively participate in the design process nor do they have decision-making power regarding the design solution (Carroll, 1996; Damodaran, 1996).

I adopted a critical poststructuralist approach informed by Foucaultian tradition for the analysis of discourses on user involvement in IT artifact development. I critically examine discourses on usability work, referring to the ways usability work is constructed in practice—in the case organizations involved in this study, but also in academia—in the literature addressing usability work and, more generally, user involvement. Regarding the construction of user involvement in academia, it has been argued that user involvement is a very vague concept and there is a variety of views of what user involvement is and how it should be accomplished (Asaro, 2000; Carroll, 1996; Kujala, 2003). Furthermore, the influential role of academic communities in imposing meanings and particular “truths” to the social world has been emphasized (Clarke, 2001; Cooper & Bowers, 1995; Bloomfield & Vurdubakis, 1997; Finken, 2003; Foucault, 1972; Weedon, 1987). Some studies (Cooper & Bowers, 1995; Finken, 2003) have already examined HCI and PD in the Foucaultian spirit as discourses constructing their objects of study (e.g., the users and the user interface) in particular ways and at the same time legitimizing their existence. This paper continues their work, but adds new insights by reviewing more recent literature and incorporating a product development perspective in the analysis.

Regarding user involvement in practice, existing literature has already warned that user involvement may be used only as a buzzword or weapon for achieving surprising or even paradoxical ends (Beath & Orlikowski, 1994, Catarci et al., 2002; Hirschheim & Newman, 1991; Howcroft & Wilson, 2003; Kirsch &
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