Abstract

This thesis examines the uses of Information and Communication Technologies (ICT) as cognitive technologies, proposing a renewed model for usage studies that is centred around the appropriative process’s cognitive dimension. Based on a study of university teacher-scholars’ e-mail use, we examine the processes of appropriation and acculturation which took place as part of the ongoing development of uses and practices. This allows us to address a set of central research questions: how do scholars appropriate e-mail as a cognitive technology? To what extent can the uses they make of it favour the emergence of a digital culture?

At the theoretical level, we called on the advances made by the sociology of uses, and especially its work on the social appropriation of ICTs, supplemented by the recent contributions of cognitive approaches, most notably in the area of distributed cognition. Building bridges between these disciplines provided an improved understanding of the processes through which uses are formed, and allows us to better grasp the role played by the technical artefacts themselves, particularly through their affordances.

At the methodological level our qualitative approach, based in a grounded theorisation perspective, consisted of interviewing an informant group made up of twenty-four e-mail-using university professionals working in sixteen different disciplines, ranging from the social sciences and humanities to the pure sciences.

The thesis demonstrates how uses are constructed through processes of social and cognitive appropriation which move on the one hand through the social construction of e-mail use and its user and, on the other hand, through the user’s work of mental representation and sociocognitive learning, a set of moves that take place inside sociocultural environments in which personal networks play a preponderant role.

These individual and collective processes of e-mail appropriation suggest acculturation processes that are ways of being, doing and thinking derived directly from the generalized use of digitally-based communication apparatuses, such as e-mail.

The key changes observed appear in the form of novel practices, by the construction of new cultural models and by the evolution of cognitive systems which impact on the professional practices and identities of the university scholars identified. Social relations find new ways of expressing themselves, grounded in the network as material and symbolic apparatus. Similarly, we see behaviours and representations which associate the figure of the connected user with the culturally-valued model of the scholar, and which locate the practice of e-mail in a register of technical efficiency linked to the imperatives of professional productivity. Finally, we note the institution of a new relationship to knowledge through socialisation to a new cognitive modality and to a specific way of networked acting and thinking.
Keywords: Use, cognition, acculturation, technological apparatus, mental representation, networks, communication, coordination, cooperation.