Chapter I

For Those About to Tag

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ABSTRACT

The recent evolution of mobile auto-identification technologies invites firms to connect to mobile work in altogether new ways. By strategically embedding “smart” devices, organizations involve individual subjects and real objects in their corporate information flows, and execute more and more business processes through such technologies as mobile Radio-Frequency Identification (RFID). The imminent path from mobility to pervasiveness focuses entirely on improving organizational performance measures and metrics of success. Work itself, and the dramatic changes these technologies introduce to the organization and to the role of the mobile worker are by and large ignored. The aim of this chapter is to unveil the key changes and challenges that emerge when mobile landscapes are “tagged”, and when mobile workers and mobile auto-identification technologies work side-by-side. The motivation for this chapter is to encourage thoughts that appreciate auto-identification technologies and their socio-technical impact on specific mobile work practices and on the nature of mobile work in general.

INTRODUCTION

Mobile work is everywhere; and despite claims by vendors and organizational consultants mobility is neither new nor particularly novel. On the contrary, many traditional occupations have always been highly mobile, including the work of taxi-drivers, policemen, traveling merchants, entertainers and trades people, to name a few. Their degree of mobility may differ, but what mobile workers have in common is a fluid arrangement of workspaces, times and contexts. Despite a long tradition of mobile work arrangements, for example Hackney carriage drivers started in London, UK in 1622, the phenomenon of mobility has not received much attention by organizational scholars over time.

The advancement of modern mobile technologies from the heavy, transmission-weak and battery-hungry, expensive mobile phones of the 1980s to the omnipresent devices of today have raised mobility to the fore of both industry and
academia. Interaction among mobile workers, but also with location-dependent colleagues, superiors and clients is carried out via technologies that allow subject-object-subject communication, with the device as a tool that facilitates the exchange of voice, video or data.

Surprisingly, until recently, the success of the mobile phone has not brought many radical innovations forward. Improvements of mobile technologies are seen primarily as incremental, with no new breakthroughs or killer-applications in sight. However, emerging mobile auto-identification technologies invite firms to connect in various ways to their mobile landscape. By strategically embedding technologies with a very small footprint, events involving individual subjects and real objects can be included within organizational information flows. Mobile radio-frequency identification (mobile RFID), for instance, allows firms to place transponders (i.e. tags) and transceivers (i.e. readers) throughout the terrain they cover to initiate object-to-object communication and drive mobile business processes.

In light of these developments, industry and academia have predominantly examined the increasing embeddedness of such context-aware technologies in terms of their impact on the information content of work. The imperceptible object-object interaction enabled by auto-identification technologies is hailed as a dramatic improvement for logistics and supply-chain management. However, along this path from mobility to pervasiveness, work itself, and the dramatic changes these technologies introduce to the organization and to the role of the mobile worker have so far been neglected. The introduction of mobile RFID is discussed here as an example of many auto-identification technologies that mark the move from a mobile landscape, in which mobile workers communicate at will with others as they navigate their terrain, to a pervasive ecosystems that exists as an interactive system between its living, human participants, the objects that shape their work and the environment in which they exist.

The motivation of this chapter is to discuss the fundamental difference of mobility and pervasiveness, with a focus on the user-technology relationship which, in today’s attempts to optimize organizational effectiveness and efficiency through embedded technologies, has been entirely overlooked.

The aim of this chapter is to unveil the key changes and challenges that emerge when mobile landscapes are “tagged”, and to prepare the reader for the impact that tagging technologies can have on mobile work environments. This chapter should be useful for developers of mobile technology, but also for application developers. Most importantly, this chapter is aimed at “those about to tag” – at practitioners who contemplate the adoption of auto-identification technologies to improve their organizational information flows.

**MOBILE LANDSCAPES**

The term and concept of mobility is difficult to delineate; and in many ways are any attempts to define mobility too restrictive or not focused enough to be meaningful in any way (Kristoffersen & Ljungberg, 2000). However, a discussion of changing mobile environments requires the delimitation of mobility and location. In this light, common approaches conceptualize mobility and mobile technologies as the opposite of the fixed-location devices.

In its early days, mobility indicated that a particular application could be carried out at different but specific geographical localities, whether within urban spaces or at remote sites. This notion of connectivity at different locales was of enormous significance when devices were first networked in a wireless fashion, and mobility referred more closely to the concept of portability of devices. Remember working on laptop computers and having to find a wired access point (in an Internet Café, possibly) to send your emails? How about the early adopters of mobile telephony,
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