Chapter 5.22
User Acceptance of Mobile Services

Eija Kaasinen
VTT Technical Research Centre of Finland, Finland

ABSTRACT

Personal mobile devices are increasingly being used as platforms for interactive services. User acceptance of mobile services is not just based on usability but includes also other interrelated issues. Ease of use is important, but the services should also provide clear value to the user and they should be trustworthy and easy to adopt. These user acceptance factors form the core of the Technology Acceptance Model for Mobile Services introduced in this chapter. The model has been set up based on field trials of several mobile services with altogether more than 200 test users. The model can be used as a design and evaluation framework when designing new mobile services.

INTRODUCTION

Research on mobile services has thus far mainly concentrated on the usability of alternative user interface implementations. Small mobile devices pose significant usability challenges and the usability of the services is still worth studying. However, more attention should be paid to user acceptance of the planned services. The reason for many commercial failures can be traced back to the wrongly assessed value of the services to the users (Kaasinen, 2005b).

User evaluations of mobile services often have to be taken into the field as the service would not function properly otherwise, or it would not make sense to evaluate it in laboratory conditions. This would be the case, for instance, with GPS systems and route guidance systems. In long-term field trials with users, it is possible to gather feedback on the adoption of the service in the users' everyday lives. Such studies gather usage data beyond mere usability and pre-defined test tasks (Figure 1). Field trials help in studying which features the users start using, how they use them and how often, and which factors affect user acceptance of the service.

Business and marketing research already have approaches whereby new technology is studied on a wider scale. The Technology Acceptance Model

Figure 1. Taking user evaluations from the laboratory to the field makes it possible to evaluate user acceptance on new services

by Davis (1989) defines a framework to study user acceptance of a new technology based on perceived utility and perceived ease of use. Each user perceives the characteristics of the technology in his or her own way, based for instance on his or her personal characteristics, his or her attitudes, his or her previous experiences and his or her social environment. The Technology Acceptance Model has been evolved and applied widely, but mainly in the context of introducing ready-made products rather than in designing new technologies.