

Enabling and improving the use of mobile e-services

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ABSTRACT

The present workshop addresses ongoing standardization issues for user education and setup procedures, enabling and improving the startup and use of mobile e-services.

General Terms

Human Factors, Standardization.

Keywords

e-Inclusion, Human Factors, Terminals, Mobile, Services, Guidelines, MMI, Out-of-box-readiness, User experience, User Interface

1. INTRODUCTION

ETSI is the European Telecommunication Standards Institute, covering various aspects of Information and Communication Technologies (ICT). ETSI is one of three official standardization “arms” officially recognized by the European Commission. It is the “parent” of such standards as GSM, ISDN, UMTS, DECT, et cetera. One of ETSI’s Technical Committees (TCs) is TC Human Factors, responsible for all user experience aspects of ETSI standards.

Two ETSI Guides (EGs) are currently being produced by ETSI Technical Committee Human Factors, Specialist Task Force 285, during March 2005- September 2006, in close collaboration with the mobile ICT industry.

The intended users of these EGs are user experience and interaction design professionals, developers of mobile terminals, services and applications, mobile network and system providers, terminal approvers and standard writers and developers.

Information and communication technologies (ICT) play a key role in the everyday life of many people. New applications and services are increasingly used to perform necessary and entertaining tasks. Connectivity and interoperability between telecommunications networks, personal computing, the Internet and ever-smarter mobile devices and services offer enormous potential for improving life, if used as intended and used by *all*. Users who cannot understand and learn how to efficiently use their devices, services and integrated or additionally offered applications will be perpetually excluded from the *e*-Society.

In the past, the question of the “digital divide” defined the “haves” and “have-nots” mainly in economic terms, dividing those who can afford new technology from those who cannot. As technological progress in network and infrastructure deployment and manufacturing and economy-of-scale effects in household availability and service provision make access to services

affordable to the largest proportion of the European society, a new facet of a possible “digital divide” becomes visible, namely the one that is related to the comprehension of how to use new devices and services. This latter aspect of the “digital divide” has direct economic and societal consequences as the uptake of mobile services will only be at a successful level if the new devices and services can actually be accessed, set up and used by the European citizens.

Most users of mobile communication solutions experience serious difficulties trying to access data services like e-mail, Internet or messaging (SMS, MMS, Voicemail) through their mobile devices. Users lack the expertise necessary to configure and set up their devices, services and applications appropriately. Furthermore, even the configuration of device properties to the desired behavior is often beyond the users’ abilities.

Many settings can be stored on the SIM card or the USIM of the mobile device, or in the future, managed by the communication system as user profiles. Even so, problems are abundant when new services are introduced, when moving from one network provider to another, when SIM or USIM cards reach a certain age and the stored information becomes outdated or when a user

From the perspective of digitally networked homes and in order to be able to make proper use of the smart solutions and devices deployed, it becomes more important than ever that users are enabled to understand access and use the offered capabilities.

Future architectures assume that users will select service providers independently of the access mechanism, roam between delivery networks, based upon their subscription profiles and define their service needs with regard to the quality, security, privacy and cost of the service. We believe this goal is nearly impossible to achieve, if the generic user knowledge level is not increased and the complexity of set-up and configuration procedures not reduced.

2. AIMS AND GOALS OF THE WORKSHOP

This workshop, the first in a series of several similar planned events, is aimed at presenting the areas of the work addressed and their current status. It will aim at collecting expert’s input based on their experiences. It will also aim at collecting the mobile industry’s guidance for the further development of recommendations for the establishment of best practices and the creation of minimum standards in the production of user education media such as user guides (paper based and electronic), instructions provided for user groups with special needs (e.g. young, elderly and disabled users).

Furthermore, required guidance on the design, implementation and provision of set-up procedures for devices and services such that those can be set up and used by the largest possible range of users, with a continuity of access and use, will be discussed in detail from the common, generic standardization perspective.

As mobile terminals and e-services tend to become evermore complex and feature rich, user education such as user guides is becoming increasingly important. At the same time, manufacturers try to reduce the costs associated with user education. The lack of good user education can lead to high call centre operation costs and also to low uptake of features and services.

At the workshop, we will explore *future ways of providing user education* in ways that benefit the end users, manufacturers and service providers. In particular, we will develop a model for providing the right information using the right (combination of) media at the right stage in the product and e-service life cycle.

The design of setup procedures for mobile devices and services has to adapt to the different abilities and the technical know-how of different users groups. They should not be designed for users with specific technical knowledge thereby creating an additional divide between those with the relevant know-how and the majority of users who have neither the interest nor the ability to acquire this knowledge. At the workshop, the initial set of UI setup guidelines will be presented and discussed, in the perspective of the key use cases agreed by the team.

In particular, the workshop shall also help to define configuration procedures for user groups with special requirements (including young, elderly and disabled users) to configure and use their devices and services at their potential, with maximum efficiency.

The final result, the ETSI Guides will not only motivate manufacturers to provide good user instructions, but also give guidance on how good user guides are developed using different media for user groups with different requirements.

The obvious benefits for all end users will be reflected by a reduced digital divide, opening up access to and the use of the potential of future systems and services in the information society for all.

The target of work is to emphasize opportunities for simple but generic solutions that are commercially attractive to network operators and equipment and service providers for delivery as a sustainable revenue generating activity, which opens access to information and communications technologies to consumers who might otherwise be excluded.

3. ACKNOWLEDGMENTS

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4. REFERENCES

NOTE: All ETSI references are available free of charge at www.etsi.org

- [1] ETSI EG 202 132: "Guidelines for generic user interface elements for mobile terminals and services".
- [2] ETSI TR 102 125: "Human Factors (HF); Potential harmonized UI elements for mobile terminals and services".
- [3] ETSI EG 202 116: "Human Factors (HF); Guidelines for ICT products and services; "Design for All"".
- [4] ETSI TR 102 133: "Human Factors (HF); Access to ICT by young people: issues and guidelines".
- [5] ETSI EG 202 191: "Human Factors (HF); Multimodal interaction, communication and navigation guidelines".
- [6] ETSI TR 102 068: "Human Factors (HF); Requirements for assistive technology devices in ICT".

