



On the Development of a Harmonized, User-Centered Terminology for Current and Upcoming ICT Devices, Services and Applications

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Abstract. Unfamiliar terms used in the user interface (UI) of an Information and Communication Technology (ICT) device, service or application may present an obstacle to users, if unfamiliar with them or uncertain about their technical meaning and intended functionality. The availability of a harmonised, user-centred terminology benefits users with functional variations, such as those with literacy difficulties, or people with varying visual needs or cognitive capabilities. This paper presents on-going standardization work, focusing on improving the overall usability and accessibility through the development of recommendations addressing terminology harmonization among devices, services and applications to a well-defined degree, in areas not intended to convey a certain brand-specific feature or image.

Keywords: Harmonization · Terminology · User-centered

1 Background

Unfamiliar terms used in the UI of an ICT device, service or application may present an obstacle to users, if uncertain about their technical meaning or intended functionality. Furthermore, terms may be introduced by manufacturers to denote new features, or to distinguish own features from those offered by competitors. Most technical terms are not intended for brand-related positioning or differentiation. In the absence of a common terminology for the most frequently used and common elements, the use of terms differs considerably among manufacturers and service providers.

This paper presents an alternative, with focus on improving the overall user experience and accessibility through the development of recommendations addressing terminology harmonization (to a well-defined degree) among devices, services and applications.

A common terminology can be employed to help prevent negative effects such as increased user difficulties in understanding and accessing complex, ambiguous and inconstantly-used terms leading to unnecessary confusion, increased efforts in user education and costs for user support, limited feature discovery, unclear user expectations and a limited uptake in use (as users may be reluctant to use fuzzy features) [2], or even increased cognitive complexity and subsequent learning efforts.

The need for harmonization increases as new features and services are being introduced at an increased pace in the world of agile ICT development and as new device and service providers continue to enter today's dynamic market.

In addition, as network operators' business models develops, end-user loyalty may decrease. The introduction of new features without the timely and instant availability of accessible user documentation impacts on the usability and accessibility of ICT.

2 Approach and Addressed Users

While terms may be introduced by manufacturers to denote new features, or to distinguish own features from those offered by competitors, most technical terms are not intended for brand-related differentiation. In the absence of a common terminology for the most frequently used and common elements, the use of terms differs considerably among manufacturers and service providers.

This paper describes an alternative, focusing on improving the overall user experience through the development of recommendations addressing terminology harmonization (to a well-defined degree) among devices, services and applications (in areas not intended to convey a certain brand-specific feature or image).

A common terminology can be employed to help prevent negative effects such as increased user difficulties in understanding complex, ambiguous and inconstantly-used terms leading to unnecessary confusion, increased efforts in user education and costs for user support, limited feature discovery, unclear user expectations and a limited uptake in use (as users may be reluctant to use fuzzy features), or even increased cognitive complexity and subsequent learning efforts.

The need for harmonization increases as new features and services are being introduced continuously, at an increased speed in the world of agile ICT development and as new device and service providers continue to enter today's dynamic market.

In addition, as network operators' business models change, end-user loyalty to network operators and device manufacturers may decrease. The introduction of new features without the timely and easy availability of user documentation is another factor with a considerable impact on the usability and accessibility of ICT.

Intended *readers* of the ETSI Guide under development will include device manufacturers, application developers, service providers, network operators, technical writers and developers of marketing materials, national and international standards bodies and regulatory institutions.

Its intended *users* are those designing, developing, implementing and deploying user interfaces for and interaction with ICT devices, services, and applications.

All users are expected to benefit from this work, including young and older people and specifically, people with functional limitations (e.g. within the cognition area [3]).

3 Method and Collaborative Processes

The development work reported will be conducted in a close collaboration with experts representing the ICT industry and interested and relevant stakeholders and will be based upon a combination of desk research, expert knowledge and an industry-wide collaboration, consultation, review and consensus process, in three main phases:

1. Identification of objects and activities to be addressed;
2. Collection of terms used by major providers; and
3. Analysis, selection and presentation of the recommended terms.

The most common functional areas (see clause 3 below) will be identified, grouped and selected to be covered by the work.

For each functional area, relevant and representative providers will be selected and the terms used by them for the most frequently used, specific objects and activities of the respective functional areas will be collected in the five languages (English, French, German, Italian and Spanish) covered by the reported work.

In the final phase of the work, the collected terms will be reviewed and the recommended terms will be selected, based on a variety of checks (e.g. for consistency between manufacturers (i.e. prevalence of certain terms)) and described and presented with focus on practical use, as reported in detail in [1].

During this process, a Reference group consisting of domain experts will be established and used to discuss, review and validate the selections and assist in the harmonization effort. Experts interested to contribute are invited to visit our homepage for additional details and the latest draft and contact us to identify the optimal forms of collaboration.

4 Results

The result will consist of a detailed list of terms listed in the Guide, providing principles of use and deployment and the terms themselves, grouped and presented by the five language-specific versions of the basic commands. At the moment of the writing of this paper, the following functional groups are intended to be covered:

1. Basic and interaction-related terms;
2. Non-functional, interaction-related terms (that also covers the most common accessibility and assistive device connectivity-related terms);
3. Telephony services;
4. Media handling;
5. Messaging;
6. Navigation and maps;
7. Banking and payments;

8. eHealth services;
9. Travel services;
10. Searching and browsing;
11. Social media;
12. Photography and imaging;
13. Games and tools; and
14. Miscellaneous (as, and if necessary).

Due to space limitations, further details are not provided here but interested readers are invited to visit our homepage and download the latest draft, or contact the authors directly during the development phase.

The final result will have to be approved by the ETSI Human Factors Committee (TC HF), as well as the representatives of the ETSI Membership community, consisting of some 800 member organizations, non-exhaustively including user representatives, standards bodies, startups, research entities, SMEs developing, deploying or using ICT, accessibility, user and disability associations, network operators, policy makers and most of the largest ICT corporations.

5 Conclusions, Recommendations and Future Steps

The aim of our work is a quick uptake and the widest possible support in product implementations in the widest possible range – eased by the easy and free, on-line availability of the publication and its unrestricted use.

We intend to openly report about our experiences, in order to ease and optimize possible future updates and expansions.

Future expansion possibilities envisaged include updated vocabularies and expanded language coverage (e.g. to the official EU/EFTA ones, or minority languages used in Europe).

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References

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