

ETSI TR 102 133 V2.1.1 (2025-07)



**Human Factors (HF);
Access to ICT by young people: issues and guidelines**

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ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - APE 7112B
Association à but non lucratif enregistrée à la
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Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Human Factors (HF).

Modal verbs terminology

In the present document "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

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Introduction

The majority of children in 19 European countries report using their smartphones 'daily' or 'almost all the time' from the EU Kids Online 2020 survey [i.55]. Among many other findings, the survey shows that the time children now spend online varies between about two hours per day (Switzerland) and three-and-a-half hours (Norway). Children are generally overlooked when considering ICT accessibility requirements. It is assumed that childhood is a temporary impairment that will vanish as the body and mind mature, and that special attention to the requirements of children is wasted effort. Accessibility for All thereby becomes Accessibility for Adults. Alternatively, it is assumed that children are "Masters of Technology" who are far superior to adults and have an inexplicable, innate ability to understand the inner workings of ICT and put it to constructive use. The present document confronts both of these assumptions, uncovering various myths associated with children and ICT use, replacing them with empirical findings and specific concerns recently expressed in public debate. Children (18 years and younger) are becoming an increasingly significant consumer group for advanced computing and communications services. In some cases, children as young as four or younger are using ICT products. These products are often embedded in or "disguised" as toys, but far too often they are designed for the generic user, i.e. adults. Children are expected to use equipment designed for adults that has inappropriate physical and cognitive ergonomics for their needs. The accessibility requirements for participation in ICT of this group are not currently clearly identified or catered for, partly because no developmental account of physical, cognitive, and social maturation that can be readily applied to product design exists. If not adequately considered this may result in problems such as inability to access services, service abuse, online vulnerability to exploitation, failures in the growth of relevant cognitive skills and physical damage from prolonged use of systems with inappropriate or inadequate physical terminal design. Public anxiety and awareness of issues related to exclusion are high. Users are almost daily confronted with examples of how poorly designed products and services - especially automated services - exclude and disenfranchise significant proportions of the general population, particularly, but not limited to, the elderly and people with physical and cognitive impairments. What is often overlooked, however, is that children's daily encounters with technology encompass much more than smartphones, gaming devices, smart TVs and vending machines. The home and school are rapidly being transformed - for better or worse - into sites of a globally connected multimedia culture, integrating a wide variety of audiovisual, information and telecommunications products and services that children are expected to use. Children increasingly depend on the PC, Internet and smartphones to achieve their educational goals, be entertained and interact with friends and family. As Sonia Livingstone [i.10] has pointed out, electronic media are extending their influence throughout children's lives to the extent that children's leisure can no longer be separated from their education, their employment prospects, or their participation in the civic or private family arena. Accessibility thus becomes not merely a design objective, but an issue of central importance within the field of children's rights. The right to protection from harmful influences, abuse and exploitation, and the right to participate fully in family, cultural and social life as specified in the UN Convention on the Rights of the Child [i.7] are all directly linked to the ICT accessibility issues described in the present document. The link will become increasingly more important as society and our children become more and more reliant on ICT to fulfil their basic needs. The present document reviews the human interaction issues for access to Information and Communications Technology (ICT) by children and guides how these should be dealt with by ETSI. This will include the ethical issues of security for vulnerable children accessing public communications spaces often in the form of social media and instant messaging services or apps.