

Bibliography

– literature in relation to Design for All

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HJÆLPEMIDDEL
INSTITUTTET

**The Danish Centre for Technical Aids
for Rehabilitation and Education**

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1. Introduction

This Bibliography is a part of the Mandate 283 on the safety and usability of products by persons with special needs given by the Commission of the European Communities. The primary target group for the Bibliography is anyone actively working with standard production.

A guidance document has been produced: CEN/CENELEC Guide 6 “Guidelines for standards developers to address the needs of older persons and persons with disabilities”. This guide addresses relevant aspects relating to the needs of older persons and persons with disabilities to be considered when drafting standards. The guide is technically identical with ISO/IEC Guide 71. However, there are several International, European and national standards that may contain specific and more detailed information concerning “human” or “elderly/disability” aspects within different standardisation areas. Also there are several documents produced as guidelines etc. in single countries that may be highly relevant in this context.

It was decided that these standards and documents should be linked to the CEN/CENELEC Guide 6 by adding this complementary document “Bibliography – on literature in relation to Design for All”.

Collection of references

The main idea has been to make an annotated bibliography based on the knowledge of a broad reference group. The reference group consisted of members of M/283 joint working group and other experts within the area.

To systematise the knowledge and make it easy for the members of the reference group to make contributions to the project a database was designed and connected with web–applications. Through these web–based input forms the members of the reference group were requested to contribute to the project by entering bibliographical information.

Document types

The following division of documents has been used in order to gather the relevant information:

- 1) European/international standards, guidelines, technical reports, technical specifications, recommendations or workshop agreements (E/I)
- 2) National standards, guidelines, technical reports, technical specifications, recommendations or workshop agreements (Nat)
- 3) Other standards, guidelines, technical reports, technical specifications, recommendation or workshop agreements (e.g. Nordic standards) (Other std.)
- 4) Project reports
- 5) Published articles

6) Other publications (including references which are only published on a website)

Subject classification

To facilitate the use of the bibliography a subject classification has been used that is based upon the EN ISO 9999 classification of Technical aids for disabled persons. It has been modified and supplemented to suit this special purpose.

It has only been possible to choose one subject classification for each document, so the contributors were forced to decide a primary subject of the publication.

Validity of references

It is important to stress that due to the method used for collection on references the bibliography is empirically based and has not been subject to peer review or public consultation. Therefore there might be useful and relevant references missing and references cited might be wrongly classified regarding the subject.

Structure of the Bibliography

The references in the bibliography are listed in the following hierarchy:

1. Subject classification (see Table of Contents page 2)
2. Document type (as given above)
3. Alphabetically/numerically arranged by document ID, if existing, or title

2. Abbreviations

BFS	Boverkets författningssamling (Building Regulations from the Swedish Board of Housing Building and Planning)
DIN	Deutsches Institut für Normung
DIN V	DIN Vornorm
DS	Dansk Standard (Danish Standards Association)
EN	European Standard
ETSI	The European Telecommunications Standards Institute
ETSI EG	ETSI Guide
ETSI EN	European Standard – telecommunications series
ETSI ES	ETSI Standard
ETSI SR	ETSI Special Report
ETSI TR	ETSI Technical Report
ETSI TS	ETSI Technical Specification

FCD	Final Committee Draft
FDIS	Final Draft International Standard
HF	Human Factors
ISO	International Organization for Standardization
ISO/IEC	ISO/ International Electrotechnical Commission
ISO/TR	ISO/Technical Report
JIS	Japanese Industrial Standards
JIS S	Japanese Industrial Standards – Domestic Wares
NNH	Nordiska nämnden för handikappfrågor (The Nordic Committee on Disability)
RAP	Publication from the Swedish National Road Administration
ResAP	Resolution adapted by Committee of Ministers, Council of Europe
RFV	Riksförsäkringsverket (Swedish Social Insurance Board)
UNE	Una Norma Española (National standard published by the Spanish Association for Standardization and Certification (AENOR))
UNE IN	UNE Information
UNE EX	UNE Experimental
WD	Working document

3. References

3.1 General information on accessibility and ergonomics

CEN/
CENELEC *Guidelines for standards developers to address the needs of older persons and persons with disabilities*

- Guide 6 **Doc. type:** I/E
Abstract: This Guide provides guidance to writers of relevant International Standards on how to take into account the needs of older persons and persons with disabilities. Whilst recognizing that some people with very extensive and complex disabilities may have requirements beyond the level addressed in this Guide, a very large number of people have minor impairments, which can be easily addressed by relatively small changes of approach in standards, thereby increasing the market for the product or service.
- ISO 9921-1 *Ergonomic assessment of speech communication — Part 1: Speech interference level and communication distances for persons with normal hearing capacity in direct communication (SIL method)*
Doc. type: I/E
Abstract: This part of ISO 9921 provides a method for prediction of the effectiveness of speech communication in the presence of noise generated by machinery (ISO/TR 12100-2) as well as in any other noisy environments.
- ResAP
(2001) 3 *Council of Europe Resolution ResAP(2001) 3 Towards full citizenship of persons with disabilities through inclusive new technologies.*
Doc. type: E/I
Abstract: Recommendations on the availability, accessibility, usability, affordability, awareness, appropriateness, attractiveness, adaptability and compatibility on new technology applications in the provision of goods and services for people with disabilities.
- DIN 33402-
2 Beiblatt *Human body dimensions; values; application of body dimensions in practice (Körpermaße des Menschen; Werte; Anwendung von Körpermaßen in der Praxis).*
1:1984-10 **Doc. type:** Nat
Abstract: The standard specifies the application of human body dimensions in practice, especially the effects of body dimensions to the design of workplaces.
Language(s): German.
- DIN 33411-
5:1999-11 *Physical strength of man – Part 5: Maximal isometric action forces, values (Körperkräfte des Menschen – Teil 5: Maximale statische Aktionskräfte, Werte).*
Doc. type: Nat
Abstract: The values given in the document apply for isometric action forces of female and male employees, who work in the industrial area. It is the purpose of these specifications to instruct designers of workplaces and workflow on maximal isometric action forces, which can be transferred to the work equipment (e.g. control actuators, tools, grips, loads).
Language(s): German.
- UNE *Global accessibility. Criteria to facilitate accessibility to the environment. Part 1:*

170001 – *MGLC requirements (Moving, Grasping, Locating and Communication)*
1:2001 *(Accesibilidad global. Criterios para facilitar la accesibilidad al entorno. Parte 1: Requisitos DALCO (Deambulaci3n, Aprehensi3n, Localizaci3n y Comunicaci3n)).*

Doc. type: Nat

Abstract: It establishes the requirements a global environment shall meet to be accessible for any person, including elderly and disabled people, to enjoy the services offered just as any other customer.

Language(s): Spanish.

UNE
170001 – *Global accessibility. Criteria to facilitate accessibility to the environment. Part 2:*
2:2001 *Global accessibility management system (Accesibilidad global. Criterios para facilitar la accesibilidad al entorno. Parte 2: Sistema de gesti3n de la accesibilidad global).*

Doc. type: Nat

Abstract: It specifies the requirements for an environmental global accessibility management system that applies when an organisation wants to demonstrate its capability to provide an accessible environment according to MGLC requirements (accessible services are offered)

Language(s): Spanish.

Kyoyo–Hin White Paper 2001 (Kyoyo–Hin Hakusho).

Publisher: The Kyoyo–Hin Foundation, OGA Bldg.,2–5–4 Sarugaku–cho, Chiyoda–ku Tokyo 101–0064, Japan, <http://kyoyohin.org/>, jimukyoku@kyoyohin.org

Year: 2001.

ISBN: 4–901356–08–9

Author: The Kyoyo–Hin Forundation.

Doc. type: Project reports

Abstract: Kyoyo–Hin and Kyoyo services are designed to be used by as many people as possible, including the elderly and those with disabilities. 5 principles for Kyoyo–Hin

I. Products/services which are accessible for persons with and without disabilities alike

II. Products/services which are not targeted specifically for special users

III. Products/services which are manufactured and used widely

IV. Products/services which are reasonable in price compared to other similar products and services

V. Products/services which are consistently in the market

CONTENTS I. The definition of Kyoyo–Hin and Kyoyo services

1. Kyoyo–Hin and Kyoyo services for barrier–free communities

(1) Definition and five principles

(2) Kyoyo items in the welfare apparatus market

2. Background to the needs for Kyoyo–Hin and Kyoyo services

- (1) Course of barrier-free design application and evolution
- (2) Japan – Working on removal of barriers in the physical environment
- (3) The socio-economic significance of development of kyoyo-Hin and Kyoyo services
- 3. Kyoyo-Hin/Services and universal design
 - (1) Definition and seven principles of universal design
 - (2) Difference of perspective between Kyoyo-Hin/services and universal design
 - (3) Study of definitions in the ISO/TMB

CONTENTS II. Scale of the Kyoyo market

- 1. The Kyoyo perspective applied in the market estimate
- 2. Kyoyo-Hin/services covered by the market estimate
- 3. Result of the market estimate

Language(s): Japanese and English.

Access Directory.

Publisher: Disabled Persons Transport Advisory Committee (DPTAC), Zone 1 / 14 Great Minster House, 76 Marsham Street, London SW1P 4DR, e-mail: dptac@dft.gsi.gov.uk, DPTAC's homepage: www.dptac.gov.uk, go to www.dptac.gov.uk/adnotes.htm to read about *Access Directory*.

Doc. type: Other publications

Abstract: This Access Directory is a web-based tool to search a database of references of accessibility guidance for urban design, rural environment, buildings and transport.

Each guidance document is summarised to help you decide whether it will be useful for you. In addition each document has been rated to indicate the level of 'inclusivity' of the guidance given, that is the extent to which it meets the needs of all potential users of an environment rather than a specific user group. The category is not an indication of the document's compliance with UK legislation. The views within each document do not necessarily reflect those of DPTAC nor the Research Group for Inclusive Environments.

Language(s): English.

Adultdata. The Handbook of Adult Anthropometrics and Strength Measurements – Data for Design Safety

Publisher: Department of Trade and Industry, 1 Victoria Street, London W1H 0ET, England, www.dti.gov.uk

Year: 1998.

Authors: Laura Peebles, Beverley Norris.

Doc. type: Other publications

Abstract: The ADULTDATA Handbook is a collection of data on adult

anthropometrics (body size) measurements and strength capabilities.

Language(s): English.

A Model Based Framework for User Interface Design.

Publisher: University of Kent

Year: 1994

Author: Homatas Gregory.

Doc. type: Other publications

Abstract: This thesis presents a novel technical framework as a basis for the construction of UI design tools which support the design of interfaces for all potential users.

Language(s): English

Crisp & Clear – European Magazine on Design for All, No 4, 2000. Theme: Design for All Commitment.

Publisher: European Institute for Design and Disability, EIDD, Ireland, www.design-for-all.org, kb@dcft.dk

Year: 2000.

Author: Editor: Karin Bendixen.

Doc. type: Other publications

Abstract: “Crisp & Clear” – European magazine on Design for All. A publication about various aspects of Design for All and accessibility. The aim of the magazine is to promote a society for all and to attract attention to the need for Design for All within the public and the private sector.

The articles can be read on www.design-for-all.org With this project, EIDD’s aim is to generate increased understanding among the target groups for the diversity of citizens and their needs across age and impairments and to arouse an interest in promoting the development and application of Design for All concepts.

‘Crisp & Clear’ deals with Design for All in the built environment, transport, product design, information and communications technology as well as services. So the magazine has a large target group: politicians, government officials, architects, town planners, designers and manufacturers. The magazine draw attention to examples of good practise from European countries, promote new approaches to design, and also improve the understanding and demonstrate the extent of problems related to disability and age.

Language(s): English and English and Summery: Spanish Italian.

Design for accessibility.

Publisher: McGraw–Hill Book Company

Year: 1979.

ISBN: 0–07–059680–8

Author: Robert James Sorensen.

Doc. type: Other publications

Abstract: A compilation of guidelines, standards and codes. Drawings with measures and standards.

Language(s): English.

Design for people with functional limitations resulting from disability, ageing or circumstance. In: G. Salvendy (Ed.) Handbook of human factors and ergonomics. (pp 2010–2052)

Publisher: Wiley

Year: 1997

ISBN: 0–471–11690–4

Author: G.C. Canderheiden

Doc. type: Other publications

Abstract: An overview of major disability groups and product design guidelines. The guidelines are divided into the following categories: output/displays, input/controls, manipulations, documentation, and safety.

Language(s): English.

Designing User Interfaces for all users: Contributions from applied ergonomics and human factors.

Publisher: USA Publishing.

Year: 1996.

Authors: Stephanidis C., Akoumianakis D.

Doc. type: Other publications

Abstract: In Proceedings of the 1st International Conference on Applied Ergonomics (ICAE '96), Istanbul, Turkey, 21–24 May (pp. 137–142)

Language(s): English.

Dictionary on Man – Machine – Communication *Lexikon der Mensch–Maschine–Kommunikation.*

Publisher: R. Oldenbourg Verlag, München, Germany

Year: 1994.

ISBN: 3–486–22618–5

Author: Hans Jürgen Charwat.

Doc. type: Other publications

Abstract: Lexicon man machine communication from A to Z with many depictions, 505 pages.

Language(s): German.

Ergonomics and disability (Ergonomía y discapacidad).

Publisher: Instituto de Biomecánica de Valencia, Avda. Juan de la Cierva, 24, Paterna, Valencia, España, www.ibv.org, ibv@ibv.upv.es

Year: 1999.

ISBN: 84-923974-8-9

Authors: Lourdes Tortosa, Garlos García, Álvaro Page, Alberto Ferreras.

Doc. type: Other publications

Abstract: This book covers a wide range of applications of Ergonomics to persons with special needs, from the design and development of products to workplace adaptation, also including technical aids. The book focuses first on concepts and tools for product design and development, taking into account user needs and Ergonomics.

The whole process of designing and developing new products is addressed, giving concrete recommendations about disabled users.

Workplace for people with special needs is also covered in depth. Methodologies on workplace analysis and human capability evaluation are explained as optimal tools to assess possible occupational risks. General ergonomic recommendations and workplace adaptation criteria are finally covered as solutions to fit workplace demands to worker abilities.

Language(s): Spanish.

Older Adultdata. The Handbook of Measurements and Capabilities of the Older Adult – Data for Design Safety.

Publisher: Department of Trade and Industry, 1 Victoria Street London W1H 0ET, England, www.dti.gov.uk

Year: 2000.

ISBN: 0-9522571-57

Authors: Stuart Smith, Beverley Norris, Laura Peebles.

Doc. type: Other publications

Abstract: The handbook is a collection of ergonomics data on adults over 50 years of age. It has been produced to meet the needs of manufacturers, designers, standards bodies and research organisations for data, which are fundamental to the design of safe products and environments.

Without such data, designing to fit the user might be left to informed guesswork or will require excessive, expensive and time consuming testing, evaluation and redesigning.

Language(s): English.

Planning of environments for people with physical disabilities using computer aided design.

Publisher: Lund Institutet of Technology, Lund University, 221 00 Lund, Sweden, www.lth.se

Year: 1998.

Author: Joakim Eriksson.

Doc. type: Other publications

Abstract: Doctoral thesis, that investigates the use of computer-based tools for planning/designing environments for physically disabled people. A software

prototype and a method to use such a tool in the planning process was developed and evaluated.

Language(s): English.

The older worker: anthropometrics and biomechanics. In: Fisk & Rogers (Eds.) Handbook of human factors and the older adult (pp 87–124).

Publisher: Academic Press

Year: 1997.

ISBN: 0122576802

Author: K.H.E. Kromer.

Doc. type: Other publications

Abstract: This text provides anthropometrical and biomechanical data for the older person, as well as examples of ergonomics help, in design for the older person.

Language(s): English.

Universal Access and Assistive Technology.

Publisher: Springer

Year: 2002.

Authors: Keates Simeon, Langdon Patrick, Clarkson P. John.

Doc. type: Other publications

Abstract: This book contains the proceedings of the first Cambridge Workshop on Universal Access and Assistive Technology (CWUAAT), incorporating the Fourth Cambridge Workshop on Rehabilitation Robotics, held in Cambridge, England in March 2002.

Contributions include papers on design, robotics and computer access, as well as the experience of industry.

Language(s): English.

Universal Access in HCI: Towards an Information Society for All (Volume 3).

Publisher: Lawrence Erlbaum Associates

Year: 2001.

Author: Stephanidis Constantine.

Doc. type: Other publications

Abstract: Volume 3 of the Proceedings of HCI International 2001, 5–10 August 2001, New Orleans, Louisiana, USA. The 229 papers contributing to this book cover the following areas: Universal design, adaptive and intelligent interfaces, architectures and tools, multimodal, continuous and Ubiquitous Interaction, user diversity and User participation, Human Factors, Ergonomics, Guidelines and Standards, Access to information, Applications, Assistive Technologies, Cultural, Social, Ethical and Legal Issues.

Language(s): English.

User-Centred Design: An Integrated Approach.

Publisher: Prentice Hall

Year: 2002.

Authors: Vredenburg Karel, Isensee S., Rigli Carol.

Doc. type: Other publications

Abstract: This is a practical guide to introducing, deploying and optimising UCD. The field's leading experts present specific methods and techniques for building products that are simpler, more elegant, more powerful, and more profitable.

Language(s): English.

Userfit. A practical handbook on user-centred design for Assistive Technology

Publisher: TIDE, European Commission

Year: 1996.

Authors: David Poulson, Martin Ashby, Simon Richardson (eds.).

Doc. type: Other publications

Abstract: The USERfit Handbook provides detailed information and guidance on how to improve the design of assistive technology products. It provides a general approach, which can be applied to a variety of different kinds of developments, ranging from the design of specialist products for one person through to the design of generic products to be used by whole populations of users. The Handbook focuses on product specification and evaluation, providing a framework and tools to assist in these processes.

Language(s): English

3.2 Healthcare

EN 12182 *Technical aids for disabled persons – General requirements and test methods.*

Doc. type: E/I

Abstract: This European Standard specifies general requirements and test methods for technical aids for disabled persons which are intended by the manufacturer to be medical devices for the purposes of EU Directive 93/42/EEC concerning medical devices.

RFV Vägled– *Compensation for personal supportive assistance (Assistansersättning).*

ning 2002:9 **Publisher:** The National Social Insurance Board, www.rfv.se

Year: 2002.

Doc. type: Other std.

Abstract: For the guidance of the staff at social insurance offices.

Language(s): Swedish.

3.3 Personal care and protection

JIS S 0023 *Guidelines for designing of clothes in consideration of the elderly people.*

Doc. type: Nat

Abstract: This Standard specifies the matters to be taken into consideration for ensuring the improvement of wearable ness and the easiness of handing when designing the clothes mainly for the elderly people in compliance, for example, with decline of motional function and change of body form due to ageing.

Language(s): Japanese and English

3.4 Personal mobility

Problems for the Spanish wheelchair users (Problemática de los usuarios de sillas de ruedas en España).

Publisher: Instituto de Biomecánica de Valencia, Avda. Juan de la Cierva, 24, Paterna, Valencia, España, www.ibv.org, : ibv@ibv.upv.es

Year: 1998.

ISBN: 84-923974-0-3

Authors: Rakel Poveda, Rubén Lafuente, Javier Sánchez-Lacuesta, Enrique Viosca, Jaime Prat, Juan Manuel Belda, Carlos Soler-Gracia.

Doc. type: Other publications

Abstract: The IBV's research work in collaboration with COCEMFE to elaborate the manual and guide of wheelchairs served as basis for this publication, awarded with IMSERSO'S 1997 Second National Research Prize.

This text includes the methodology followed to get and treat data, the most important aspects of the Spanish wheelchair users and the characteristics of the main types of wheelchairs used. The description of users comprises the most usual kinds of disabilities, their distribution according to population groups, and other aspects such as life quality and clinical aspects. The analysis of wheelchairs includes the types of products, their evaluation by the user, and the most relevant criteria for selection. This work serves as an image of the wheelchair market from the user perspective in Spain.

Language(s): Spanish.

3.5 Housekeeping/household

- DIN V 40102-2:2000-04 *Graphical symbols for use on household appliances (Graphische Symbole für Fachbereiche der Elektrotechnik – Hausgeräte).*
Doc. type: Nat
Abstract: The document contains a survey of standardized and proposed graphical symbols for use on equipment in the field of household appliances.
Language(s): German.
- TemaNord 1994:661 *Ergonomic features of household appliances – kitchen ranges, ovens and microwave ovens. (Hushållsapparaters ergonomiska egenskaper – spisar, ugnar, häller och mikrovågsugnar).*
Publisher: Nordiska ministerrådet, Stor Strandstræde 18, 1255 København K, Denmark, www.norden.org
Year: 1994.
ISBN: 92 9120 598 2
Doc. type: Other std.
Abstract: In the series of "Ergonomic features of household appliances" this book sets up Nordic requirements and related test methods for kitchen ranges, ovens and microwave ovens in relation to elderly and persons with special needs.
Language(s): Swedish.
- TemaNord 1994:662 *Ergonomic features of household appliances – vacuum cleaners (Hushållsapparaters ergonomiske egenskaper).*
Publisher: Nordiska ministerrådet, Store Strandstræde 18, 1255 København K, Denmark, www.norden.org
Year: 1994.
ISBN: 92 9120 599 0
Doc. type: Other std.
Abstract: In the series of "Ergonomic features of household appliances" this book sets up Nordic requirements and test methods for vacuum cleaners in relation to elderly and persons with special needs.
Language(s): Swedish.
- TemaNord 1994:663 *Ergonomic features of household appliances – dishwashers (Hushållsapparaters ergonomiska egenskaper – diskmaskiner).*
Publisher: Nordiska ministerrådet, Store Strandstræde 18, 1255 København K, Denmark, www.norden.org
Year: 1994.
ISBN: 92 9120 601 6
Doc. type: Other std.
Abstract: In the series of "Ergonomic features of household appliances" this book

sets up Nordic requirements and related test methods for dishwashers in relation to elderly and persons with special needs.

Language(s): Swedish.

TemaNord *Ergonomic features of household appliances – washing machines*
1994:664 *(Hushållsapparaters ergonomiska egenskaper – tvättmaskiner).*

Publisher: Nordiska ministerrådet, Store Strandstræde 18, 1255 København K, Denmark, www.norden.org

Year: 1994.

ISBN: 92 9120 600 8

Doc. type: Other std.

Abstract: In the series of "Ergonomic features of household appliances" this book sets up Nordic requirements and related test methods for washing machines in relation to elderly and persons with special needs.

Language(s): Swedish.

TemaNord *Method of measuring the ergonomic characteristics of electronic products for*
2001:534 *domestic use.*

Publisher: Nordic Council of Ministers, Store Strandstræde 18, 1255 København K, Denmark, www.norden.org

Year: 2001.

ISBN: 92-893-0623-8

Doc. type: Other std.

Abstract: In order to persuade manufacturers to improve the manageability of their domestic electronic products, measuring methods have been developed, and these form the basis of a specification of requirements. To obtain a high degree of consistency in the assessment of ergonomic characteristics special measuring equipment has been developed too. Further, a grading system has been developed that shows the measured results in a simple and clear way. The specification of requirements includes products such as portable radio receivers, and CD and cassette players, but is also applicable to devices with similar technique.

Language(s): English and Swedish.

User-friendly waste disposal with emphasis on disability and accessibility, SBI report 326.

Publisher: Danish Building Research Institute, Postboks 119, 2970 Hørsholm, Denmark, www.sbi.dk

Year: 2000.

ISBN: 87-563-1076-5

Authors: Philip Jensen, Christian Woetmann Nielsen.

Doc. type: Project reports

Abstract: This report focuses on the problems experienced by persons with disabilities and senior citizens in connection with waste disposal. Two Danish

studies show that the design of existing waste storage receptacles to a large extent precludes persons with disabilities from participating on equal terms in day-to-day waste disposal activities. The report presents the results of field tests involving receptacles modified to accommodate requirements to functionality. They were tested by the residents in three housing blocks. The last part of the report is prepared as a practical guide to user-friendly waste disposal for a wider group of users including handicapped and elderly persons. The report is aimed at all actors in waste management field

Language(s): English and Danish.

The design of home appliances for young and old consumers.

Publisher: Delft University Press, P.O:box 98, 2600 MG Delft, Netherlands, DUP@DUP.DUdelft.NL

Year: 1999.

ISBN: 90-407-1755-9

Author: Adinda Freudenthal.

Doc. type: Other publications

Abstract: Is daily-life equipment sufficiently adapted to use by the elderly? Or are product developers biased towards young, healthy males with technical skills and insight? When designing products to be handled at home or in a professional situation or in the public domain, designers ought to base their choices of technical properties on the capacities, habits and preferences of the user group. Although there is a continuing increase in the grey sector of society, design-relevant data on elderly users are almost non-existent. This book attempts to narrow this gap in gerontology: product design for the elderly.

Two classes of products that tend to cause major problems in use are consumer electronics and household appliances and their accompanying manuals.

Most senior citizens cannot or will not program the canals of their TV or set the clock of the microwave oven. If such products would be designed in a way that takes into account the diminishing human capacities of the elderly, younger users would benefit as well.

Transgenerational design guidelines are needed for this purpose. A set of about one hundred new guidelines for product development at the design of product manuals is presented in this volume, the second of this series.

In this volume methodological issues of user-centred design are tackled and essential products properties are described, matching users' strategies for product use cognitive aspects, such as learning, and aspects of perception, for three age groups (the elderly, adults and teen-agers).

The guidelines are established on the basis of results of observation studies.

Subjects from three cohorts used a range of apparatus, such as washers, microwave ovens, audio equipment, and a TV-VCR combination.

Language(s): English.

3.6 Machinery and tools

EN 547-3 *Safety of machinery — Human body measurements — Part 3: Anthropometrical data.*

Doc. type: E/I

Abstract: This European Standard specifies current requirements for human body measurements (anthropometrical data) that are required by EN 547-1 and EN 547-2 for the calculation of access openings dimensions as applied to machinery. The anthropometrical data originate from static measurements of nude persons and do not take into account body movements, clothing, equipment, machinery operating conditions or environmental conditions.

EN 614-1 *Safety of machinery – Ergonomic design principles – Part 1: Terminology and general principles.*

Doc. type: E/I

Abstract: This European Standard establishes the ergonomics principles to be followed during the process of design of work equipment, especially machinery. Although the principles in this European Standard are orientated towards equipment for occupational use, they are applicable also to equipment for private use. The European Standard applies to the interactions between the operator and the work equipment, when installing, operating, adjusting, maintaining, cleaning, repairing or transporting equipment.

EN 894-1 *Safety of Machines — Ergonomic Requirements for the Design of Indicators and Controls — Part 1: General Basic Principles for the user — Interaction with Indicators and Controls.*

Doc. type: E/I

Abstract: This European standard applies to the design of displays and control actuators on machinery. It specifies general principles for human interaction with displays and control actuators, to minimise operator errors and to ensure an efficient interaction between the operator and the equipment. It is particularly important to observe these principles to minimise operator errors and to ensure an efficient interaction between the operator and the equipment. It is particularly important to observe these principles when an operator error may lead to injury or damage to health.

EN 894-2:1999 *Safety of Machines — Ergonomic Requirements for the Design of Indicators and Controls — Part 2: Indicators.*

Doc. type: E/I

Abstract: This European standard gives guidance on the selection, design and location of displays to avoid potential ergonomic hazards associated with their use. It specifies ergonomics requirements and covers visual, audible and tactile displays.

It applies to displays used in machinery (e.g. devices and installations, control panels, operating and monitoring consoles) for occupational and private use.

EN 894–
3:2002 *Safety of Machines — Ergonomic Requirements for the Design of Indicators and Controls — Part 3: Controls.*

Doc. type: E/I

Abstract: This standard gives guidance on the selection, design and location of control actuators, so that they are adapted to the requirements of the operators, are suitable for the control task in question and take account of the circumstances of their use. It applies to manual control actuators used in equipment for occupational and private use. It is particularly important to observe the recommendations in this standard where operating a control actuator may lead to injury or damage to health, either directly or as a result of a human error.

ATMs and vending machines as we like them to be constructed (Serviceautomater som vi vill ha dem).

Publisher: The Swedish Handicap Institute, Box 510, 162 15 Vällingby, Sweden, www.hi.se

Year: 1997.

ISBN: 91–88336–96–4

Authors: The Kyoyo–Hin Foundation, Sören Hansson, Anders Vessman.

Doc. type: Other publications

Abstract: The aim of this publication is to show what is important to consider when constructing any type of vending machine, ATM etc.

Language(s): English.

3.7 Handling products and goods

JIS S 0012 *Guidelines for all people including elderly and people with disabilities. Usability of consumer products.*

Doc. type: Nat

Abstract: This Standard specifies the matters to be taken into account to improve the controllability of operating part such as electrical switches, when designing consumer products used by all consumers, including visually handicapped people and elderly people with weak eyesight.

Language(s): Japanese and English.

JIS S 0021 *Guidelines for all people including elderly and people with disabilities. Packing and receptacles.*

Doc. type: Nat

Abstract: This Japanese Industrial Standard specifies the guidelines for the design considered for the discernibility and usability of the packaging and receptacles (including bags) of the consumer products used by all people including elderly people and visually handicapped people whose grasping power and eyesight are weakened.

Language(s): Japanese and English.

TemaNord
1994:660 *Ergonomic features of household appliances – tumbler dryers (Hushållsapparaters ergonomiska egenskaper – törktumlare).*

Publisher: Nordiska ministerrådet, Store Strandstræde 18, 1255 København K, Denmark, www.norden.dk

Year: 1994.

ISBN: 92 9120 597 4

Doc. type: Other std.

Abstract: In the series of "Ergonomic features of household appliances" this book sets up Nordic requirements and test methods for tumbler dryers in relation to elderly and persons with special needs.

Language(s): Swedish.

Standards and the elderly, recommendations for safety improvement.

Publisher: Consumer Safety Institute, P.O. Box 75169, 1070 AD Amsterdam, The Netherlands, www.consafe.nl, infodesk@consafe.nl

Year: 2000.

Authors: Malcolm Bassett, Clive Davis.

Doc. type: Project reports

Abstract: The aim of this project was to examine whether European Standards take account of the physical limitations of elderly people, looking in detail at three products. This study was carried out in three phases.

The first phase identified all relevant European and International safety standards, and included an analysis of accidental data for three types of products (kettles, vacuum cleaners, hedge trimmers) and the identification of age related hazards. The main age group considered was 50+ male and female.

The second phase was a more focused study which compared age related requirements with existing safety standards. These two factors formed the basis of recommended changes to safety requirements to remove or reduce the risk of injury to the target population.

The third and final phase was an executive summary of the first two phases and identified the 10 most important improvements to safety standards for each product.

Language(s): English

Design-relevant characteristics of ageing users.

Publisher: Delft University Press, P.O.box 98, 2628 MG Delft, Netherlands, DUP@DUP.TUdelft.NL

Year: 1998

ISBN: 90-407-1709-5

Authors: L.P.A: Steenbekkers, C.E.M. van Beijsterveldt

Doc. type: Other publications

Abstract: Is daily-life equipment sufficiently adapted to use by the elderly? Or are product developers biased towards young, healthy males with technical skills and insight? When designing products to be handled at home or in a professional situation or in the public domain, designers ought to base their choices of technical properties on the capacities, habits and preferences of the user group. Although there is a continuing increase in the grey sector of society, design-relevant data on elderly users are almost non-existent. This book attempts to narrow this gap in gerontology: product design for the elderly.

In a national study 750 subjects, who lived independently, were assessed. In total about 80 variables, all more or less important for product use, were measured. The sample consisted of four age groups ranging from 50 to over 80 years of age; a group of young people (20 - 30 years) was also studied for the purpose of comparison. The variables covered a variety of human characteristics, such as a body limb measurements, maximum forces exerted, speed of movements, eye-hand co-ordination, etc. as well as their seeing, hearing and feeling capacities and certain aspects of memory. In addition, a questionnaire was used to probe the problems experienced with various products.

Language(s): English.

Product safety guide for designers (Eisenwijzer, veiligheidsrichtlijnen voor ontwerpers).

Publisher: Consumer Safety Institute, P.O. Box 75169, 1070 AD Amsterdam, The Netherlands, www.eisenwijzer.nl, : eisenwijzer@consafe.nl

Year: 1999.

ISBN: 90-6788-250-x

Authors: S.C. van Haastrecht, L.A.R. Henze.

Doc. type: Other publications

Abstract: In order to minimise product-related injuries it is important to encourage designers to think about the safety of the consumer. To achieve this goal it is imperative that designers have the necessary information at their fingertips to be able to design safe products. This is necessary because safety requirements are constantly changing. For example, researchers gain new insights into (age-related) human aspects and risks, more statistics become available and new standards are developed.

In order to provide designers with up-to-date safety-design information the Consumer Safety Institute in the Netherlands has built a new website <http://www.eisenwijzer.nl>, on the basis of the *Product safety guide for designers*. The goal of the website (launched in January 2003) is to broaden the concept of the original guide to include safety-design information for products for all age groups, including general information about risk assessment and design processes. Designers can find references to the problems of age-related limitations, specific product dangers, statistical facts, design suggestions, and relevant standards. The information is clearly categorised enabling the designer to easily navigate the site to find specific content.

Language(s): Dutch and English.

Which button? Designing user interfaces for people with visual impairments.

Publisher: Royal National Institute for the Blind, 224 Great Portland Street, London W 1 N 6AA, England

Year: 2000.

ISBN: 1 86048 023 3

Author: John Gill.

Doc. type: Other publications

Abstract: The booklet is not a guide to all types of controls, but it does attempt to indicate aspects needing consideration by designers if the controls are to be operated by people with a visual impairment.

Language(s): English.

3.8 Communication, information and signalling

- EN 457 *Safety of Machines – Acoustic Danger Signals; General Requirements, Design and Testing.*
Doc. type: E/I
Abstract: The standard specifies the safety requirements and the corresponding test methods for auditory danger signals and gives guidelines for the design of the signal to be clearly perceived and differentiated as required in 5.3 of EN 292 Part 2. This standard does not apply to verbal danger warnings (e.g. shouts, loudspeaker announcements). Special regulations such as those for a public disaster and public transport are not effected by this standard.
- EN 60073 *Basic and General Safety Rules for the Human–Machine Interface, Labelling; Basic Principles of Coding for Display Units and Controls.*
Doc. type: E/I
Abstract: This International Standard establishes general rules for assigning particular meanings to certain visual, acoustic and tactile indications in order to:
– increase the safety of persons, property and/or the environment through the safe monitoring and control of the equipment or process
– facilitate the proper monitoring, control and maintenance of the equipment or process
– facilitate the rapid recognition of control conditions and actuator positions.
- EN 61310–1 *Safety of machinery — Indication, marking and actuating — Part 1: Requirements for visual, auditory and tactile signals.*
Doc. type: E/I
Abstract: This part of IEC 1310 specifies requirements for visual, auditory and tactile methods of indicating safety-related information, at the man-machine interface and to exposed persons.
It specifies a system of colours, safety signs, markings and other warnings, intended for use for the indication of hazardous situations, and health hazards and for meeting certain emergencies.
It also specifies ways of coding visual, auditory and tactile signals for indicating and actuating devices in order to facilitate the safe use and monitoring of the machinery.
- ETSI EG 201 103 *Human Factors (HF); Human factors issues in Multimedia Information Retrieval Services (MIRS).*
Doc. type: E/I
Abstract: The present document focuses on the principles that are important for navigation in Multimedia Information Retrieval Services (MIRS) from both a functional and implementation point of view.

The scope is limited to those services, which can be accessed through a telecommunications network, as opposed to those locally accessed (e.g., from the local computer disk unit). The different types of services that fall into this category will be those identified in ETR 181 [36] (the Multimedia Portfolio), whose attributes are:

- normal bandwidth less than 2 Mbit/s
- on demand
- any time
- any duration

All possible applications will be considered, identifying whenever possible the special navigation requirements for them, with the only exception of Video on Demand, which, for its particular features, is in the scope of other ETSI TC-HF work items.

The requirements of different types of users of these services may be different (see ETR 175 [1], and clause 4). We will concentrate on the information consumer (the end user) requirements. This report proposes general Human Factors guidelines with the explicit aim of being applicable to a wide range of different services, and not specific to particular telecommunications networks.

Specific topics include:

- The study of important issues in MIRS to ensure the achievement of an adequate level of usability
- Provision of a thorough and consistent analysis affecting navigation in MIRS with special emphasis in the review of existing techniques and methods for navigation and information search and the identification of critical usability issues
- Specification of navigation requirements for a limited number of services
- Provision of interface design guidelines and examples for the implementation of navigation functions within and between services.

ETSI EG 201 *Human Factors (HF); Framework for the development, evaluation and selection of graphical symbols.*
379

Doc. type: E/I

Abstract: The present document provides a framework for the development, evaluation, and selection of graphical symbols for application within telecommunications on terminals (on telecommunications equipment and for telecommunications functionality of human-computer interfaces, e.g. on keyboards and screens), within telecommunications services (e.g. to denote the availability of and access to a telecommunications service) as well as in printed materials (e.g. user guides and directories).

The present document is applicable to relevant factors including:

- appropriate use of graphical symbols
- development of new graphical symbols for specific areas

- evaluation of graphical symbols using the ETSI Multiple Index Approach (MIA).

Symbols for graphical programming or description languages are not included within the scope of the present document.

ETSI EG 201 *Human Factors (HF); Usability evaluation for the design of telecommunication systems, services and terminals.*
472

Doc. type: E/I

Abstract: The present document gives guidance on usability evaluation methods and procedures, with special emphasis on its application within the framework of the Human-Centred Design Process.

The document is applicable to the usability evaluation of telecommunication systems, services and terminals, taking into account their intended users from the initial phases of the design process. A closer definition of systems, services and terminals is required here: with systems, services and terminals we mean complete products for its use, either finished or in a prototype state, but not particular components. For these, there may exist particular testing methods, which are not covered in the present document. For instance, refer to current ETSI and ITU standards for icon testing, video or audio quality, etc.

The approach of the present document is applied instead of theoretical: the choice criteria for a person in charge of the evaluation process to choose which method in which design phase are exposed first, and then the different methods and procedures are reviewed, and examples are provided whenever considered appropriate. Directly applicable material, as, e.g. response format for questionnaires, will be provided wherever appropriate.

Particular issues presented in the present document are:

- a review of the current standards on Human-Centred Design Process (ISO 13407 [3]) and their application for telecommunications systems, terminals and services design
- the state of the art in usability assessment techniques, including new methods appeared since the publication of ETR 095 [1] either in telecommunications or in software design areas

ETSI EG 201 *Human Factors (HF); Issues concerning user identification in future telecommunications systems.*
795

Doc. type: E/I

Abstract: The present document identifies issues on the user-oriented identification requirements of users of telecommunications systems. It expresses implementation free identification capabilities that future systems need in order to enable users to locate other users or services in ways that are natural and meaningful to them.

The document is concerned explicitly with the set-up of communications and not with the content of those communications.

The present document should be used by authors of standards to ensure, that users' identification needs are met by systems, that follow their standards.

ETSI EG 201 *Human Factors (HF); User identification solutions in converging networks.*
940 **Doc. type:** E/I

Abstract: The areas covered by the present document are:

1) End-user requirements of end-user identification solutions are described. In particular the following are covered:

- the end-user requirements involved in establishing person-to-person communication using whatever means (fixed or mobile telephone, e-mail, SMS...) that are chosen;
- the end-user requirements of dealing with incoming communications, in relation to end-user identity issues
- the end-user requirements involved in setting up and configuring a system to deal with incoming and outgoing communications.

2) A number of end-user identification solutions that address all person-to-person electronic communication means are described. High-level potential solutions and not detailed, specific, technical solutions are discussed.

3) Issues involved in providing these solutions are described. Specifically:

- the issues involved in configuring the environment to make and receive communications
- the issues involved in requesting and using the identity of the party with whom a sender wishes to communicate
- the issues involved in dealing with incoming communications.

4) An analysis of how a preferred universal solution for end-user communications identification can be effectively introduced into existing networks and services.

Only potential solutions that require little or no changes to the way in which current numbering and identification mechanisms within networks and the Internet currently work are considered in the present document.

Solutions that require significant re-engineering of existing networks or of the Internet are avoided.

Although not specifically addressed, an attempt has been made to take into account commercial issues in the formulation of solutions.

The present document shows how enhancements to terminals and to peripheral elements of networks can significantly enhance the benefits derived from the proposed solution.

Multicast and broadcast are considered to be outside the person-to-person scope. It is also possible that the same identification solution might be used to identify services and various non-human entities. Consideration of these alternative uses for the identification solutions are outside the scope of the present document.

ETSI EG 202 *Human Factors (HF); Guidelines on the multimodality of icons, symbols and*

048

pictograms.

Doc. type: E/I

Abstract: The present document presents guidelines for the design and use of multimodal symbols using a Design for All approach. It also provides a study of the needs and requirements for the use of multimodal symbols in user interfaces, with special emphasis on the requirements of people with disabilities and elderly people. The document provides guidelines, good practice and case studies for the successful design and application of multimodal symbols using the Design for All approach.

The document will support the standardisation process with respect to the use of multimodal symbols in modern user interfaces. Icons, symbols and pictograms are widely used components of user interfaces in ICT applications and services, e.g. for navigation, status indication and function invocation.

Examples of such applications and services include information retrieval (e.g. Web sites), messaging (e.g. email and SMS), public services (e.g. public telephones and ATMs) and real time communication services (e.g. fixed and mobile telephony). The use of visual-only symbols in such applications and services creates temporary or permanent problems for all users.

User groups most affected are blind and partially sighted people and users of mobile devices with limited visual display capabilities. All users can potentially benefit from the current and future possibilities of multimodal user interfaces. These interfaces combine communication channels, for example sound, graphics, video, speech, force and vibration.

The present document does not deal with unimodal symbols, i.e. only visual symbols or only auditory "ear cons", but with symbols that use at least two communication channels.

The applications and services make use of many different networks for communication, but this aspect is outside the scope of the project.

ETSI EG 202 *Universal Communications Identifier (UCI); System framework.*

067

Doc. type: E/I

Abstract: The present document:

- defines the system architecture and operations needed for a Universal Communications (UCI) implementation capitalising on existing and emerging standards
- identifies and documents the standards that are available (or that will be available) to enable the UCI to be implemented

In line with the above one of the prime requirements during development of the UCI concept has been to minimise the number of specialised technical requirements necessary for its implementation. Similarly the assumption has been that most of the functionality necessary to put UCI into practice will appear as part of the natural evolution of a future communications network architecture (the rapid evolution of

services such as Presence and Location Based Services indicate that this assumption is realistic).

With regard to standardisation, the approach taken has been to avoid promoting the creation of new standards solely for the purpose of creating UCI systems when existing or developing standards can be used, amended, or extended.

The main UCI functional entities are described in clause 6. Clauses 7 and 8 describe the required capabilities of UCI systems and list the Technical Requirements for UCI. Details of UCI dialogues, services, processes are contained in clause 9.

Descriptions of communication using UCIs and of how UCI assists in personal privacy protection follow in clauses 10 and 11. Descriptions of the data handled in UCI systems and a UCI Security Framework are in clauses 13 12 and 14 13.

Finally, in the main document, a brief introduction to UCI administrative issues and to the principal standards that could support UCI are contained in clauses 14 and 15.

Annex A contains a number of scenarios that illustrate the UCI being used in everyday tasks. Each scenario describes how UCIs might be used in realistic communications related situations. Both the user experience and key elements of underlying system behaviour that produces that experience are shown. The scenarios:

- show how meeting the user requirements described in Annex B enables realistic and powerful usage scenarios to be delivered
- help to identify and validate the system capabilities that are needed to deliver the required behaviour of UCI-based communication.

Annex B contains a systematic analysis of the user requirements (first defined in EG 201 940 [1]) which have been used to define the UCI architecture. Each requirement is described in detail with particular reference to which requirements are mutually supportive and which are potentially in conflict.

Annex C lists Standards Bodies, which are potentially related to the UCI Technical Requirements.

Annex D gives a summary of security mechanisms that may be of relevance to UCI.

Annex E is a security risk assessment of UCI, primarily from the end-user security perspective.

Annex F draws comparisons between UCI and ENUM.

ETSI EG 202 *Universal Communications Identifier (UCI); Placing UCI in context; Review and analysis of existing identification schemes.*

072

Doc. type: E/I

Abstract: The present document gives guidance on the application of identity to Next Generation Networks (NGN). The present document presents the analysis of identification as below:

- Identification requirements for next generation services including those based on a UCI.
- Analysis of current identification schemes (E.164, E.212, IPv4/IPv6 addresses).
- Impact of identification schemes on user registration procedures.
- Assessment of portability of identification schemes between service providers.
- Quantitative measure of system performance.
- A review of the relevance of SmartCard technology.
- Reviews the viability of existing lawful interception requirements.

ETSI EG 202 *Human Factors (HF); Guidelines for ICT products and services; "Design for All".*

116 **Doc. type:** E/I

Abstract: The present document gives guidance to Information and Communication Technology (ICT) product and service designers on Human Factors issues, good Human Factors design practice, and relevant international and national standards. In particular, it aims to help designers to maximise the level of usability of products and services by providing a comprehensive set of Human Factors design guidelines. The guidelines are intended to encourage a "Design for All" approach so as to make products and services accessible to as many people as possible, including elderly people and persons with disabilities, without the need for adaptation or specialised design.

The present document is applicable to ICT products with a user interface that are connectable to all kinds of fixed and mobile telecommunications networks. This includes products such as telephones, Multimedia terminals, Personal digital Assistants (PDAs) and services such as e-mail, Short Message Services (SMS) and voice messaging.

It is applicable to public and private access devices and services.

ETSI EN 301 *Human Factors (HF); Human factors requirements for a European Telephony Numbering Space (ETNS).*

104

Doc. type: E/I

Abstract: The present document specifies the Human Factors (HF) requirements related to all aspects of a European Telephony Numbering Space (ETNS). It describes the requirements to be met jointly by the ETNS service provider and the network operator enabling access to the ETNS service.

The present document applies to any ETNS service provided within an ETNS scheme based upon a European Country Code (CC) and provided for access from public and private telecommunications networks.

It covers those aspects of ETNS services that would be of importance to the users of those services and to other telephony users who may be affected by the introduction of an ETNS.

Requirements cover the formatting of the written presentation of ETNS numbers to enable users:

- to identify an ETNS service
- to minimise dialling errors caused by difficulties in memorising long digit strings
- rules for migrating from an ETNS Service to a Global Service that will minimise difficulties for users
- rules that ensure that called users receive appropriate Calling Line Identity (CLI) information when called from a European Number (EN)
- rules that ensure calling users are still able to determine call charges after a EN has been ported to a new provider
- rules that ensure the minimisation of user difficulties caused by call delays
- rules to overcome the potential linguistic difficulties associated with ETNS services

Mobility aspects of an ETNS are outside the scope of the present document. Only those aspects of an ETNS to which specific requirements can be attached are covered in the present document. Other Human Factors aspects of an ETNS are presented in TR 101 056 [1].

ETSI EN 301 462 *Human Factors (HF); Symbols to identify telecommunications facilities for deaf and hard of hearing people.*

Doc. type: E/I

Abstract: The present document defines symbols to identify telecommunication facilities for deaf and hard of hearing people.

The telecommunication facilities addressed are:

- amplification
- coupling for hearing aids, these include:
 - induction coupling
 - electrical coupling.
 - text telephony
- video telephony, these include:
 - general video telephone
 - high quality video telephone, suitable for lip reading and fluent signing.
- general non-specific facilities which may or may not be telecommunication related.

The symbols in the present document are presented in accordance with the drafting rules described in IEC 416 [3].

This document is applicable to:

- telecommunication equipment and services provided by manufacturers, network operators and service providers, that offer the defined facilities or technologies intended to assist deaf and hard of hearing people
- public information signs that may be used to identify telecommunication

facilities intended to assist deaf and hard of hearing people

- telecommunication directories that identify telecommunication facilities intended to assist deaf and hard of hearing people connected to specific numbers
- packaging and/or associated product documentation that supports telecommunication equipment, facilities or services intended to assist deaf and hard of hearing people.

ETSI ES 201 125 *Human Factors (HF); Universal Personal Telecommunications (UPT); Specification of the minimum Man-Machine Interface (MMI) for Phase 1 UPT.*

Doc. type: E/I

Abstract: The present document defines the minimum Man-Machine Interface (MMI) for the phase1 UPT service. It describes the requirements to be met jointly by the UPT service provider, the network operator enabling access to the UPT service and the UPT access device manufacturer. The present document applies to phase 1 UPT services provided for access from within public and private (or corporate) telecommunications networks, including the: – Public Switched Telephone Network (PSTN); – Integrated Services Digital Network (ISDN). Although excluded from the service description (ETS 300 779 [11]), the present document may also be applied to other public and private (or corporate) networks that enable access to a UPT phase 1 service, including:

- analogue Public Land Mobile Networks (PLMN), including:
 - Total Access Communication Systems (TACS)
 - Extended Total Access Communication Systems (ETACS)
 - Nordic Mobile Telephone System (NMT)
- digital PLMNs, including:
 - Global System for Mobile communications (GSM)
 - Digital Cellular System (DCS) 1 800
- analogue and digital private (or corporate) networks
- virtual private (or corporate) networks.

The minimum MMI defined in the present document includes only the requirements for access and control of a phase 1 UPT Service having a restricted number of core features. It contains also some general requirements associated with any terminal utilised for UPT access.

The minimum MMI defines:

- UPT user access and control procedures
- UPT service menu contents and key allocations
- UPT tones and voice announcements.

This definition of the minimum MMI for phase 1 is intended to complement the UPT User Requirements defined in ETR 208 [5], and the phase 1 UPT technical aspects defined in ETR 066 [2], ETR 144 [3], ETR 231 [6], ETR 315 [7], ETS 300 391 1 [9] and ETS 300 779 [11].

ETSI ES 201 275 *Human Factors (HF); User control procedures in basic call, point-to-point connections, for Integrated Services Digital Network (ISDN) video telephony.*

Doc. type: E/I

Abstract: The present document specifies the minimum set of user procedures required to control basic call, point-to-point connection, for the ISDN video telephony service from ISDN video telephones.

This includes the procedures required to support the fallback from ISDN video telephony to ISDN or PSTN telephony. It describes the requirements to be met jointly by the ISDN video telephone manufacturer, the ISDN video telephony service provider and the network operator enabling access to the ISDN video telephony service.

The document applies to ISDN video telephones and any equipment, which acts as an ISDN video telephone which is connected to the public ISDN video telephony service.

The present document is not concerned with:

- ISDN Video telephony point-to-multipoint connections
- access and control of supplementary services
- any accidental disconnection protection
- the interworking of an ISDN video telephone and the ITU-T defined PSTN video telephone. (ITU T Recommendations H.223 [12], H.263 [14], H.324 [15], H.245 [13])
- call charges and billing arrangements, especially related to changes in video telephone communication modes
- user controlled establishment of local and remote test loops
- the addition of data capabilities beside audio and video
- procedures related to ISDN telephony or mobile networks
- interworking with the PSTN (except in the case of fallback as stated above).

These matters are, or will be, defined in other standards.

While considerations are given in the normative references for Video telephony and Private ISDNs, and most of the principles brought forward for those user interfaces would also be applicable to attachment to a Private ISDN, no special attention has been made in the present document to any requirements for interworking with terminals within Private ISDNs.

ETSI ES 201 381 *Human Factors (HF); Telecommunications keypads and keyboards; Tactile identifiers.*

Doc. type: E/I

Abstract: The present document specifies the form, dimension and location of tactile identifiers on telecommunications keypads and keyboards.

Only the "5", "F" and "J" keys are within the scope of the present document. Tactile identifiers help blind and visually impaired people locate the various keys of telephone keypads and keyboards.

Tactile identifiers may furthermore increase the usability of telecommunications terminals for people with normal vision, e.g. when using the terminals when there is poor lighting. The identifiers are consistent with existing standards for tactile identifiers in order to harmonise telecommunications terminals with other equipment.

ETSI ES 201 *Human Factors; Procedure for registering a supplementary service code.*

382

Doc. type: E/I

Abstract: The present document defines the procedure to be followed when applying for a code for a new supplementary service that is to be entered on the ETSI register of supplementary service codes. It also sets out the responsibilities of the parties involved in the application.

The present document is applicable to all supplementary services used in public network services.

The present document is not applicable to supplementary services implemented on Centrex or on corporate networks.

ETSI ES 201 *Human Factors (HF); Specification of user requirements for use in ETSI deliverables.*

930

Doc. type: E/I

Abstract: The present document explains the key elements of user requirements that need to be understood to ensure that the utility and usability of a telecommunications product or service are met.

The present document includes a "User Requirements" form that has sections that address each of these key elements together with some instructions and examples to assist the person completing the form.

It is expected that all ETSI Technical Bodies will complete a "User Requirements" form, as specified in the present document, for each document that they produce that specifies a product or service with which users interact and that this form would be included as an annex to the deliverable.

ETSI ES 202 *Human Factors (HF); User Interfaces; Generic spoken command vocabulary for ICT devices and services.*

076

Doc. type: E/I

Abstract: The present document specifies a minimum set of spoken commands required to control the generic and most common functions of ICT devices and services that use speaker independent speech recognition. It specifies the necessary and most common vocabularies to be supported by ICT devices and

services for voice input, including command, control and editing.
The present document is applicable to the functions required for navigation, information retrieval, basic call handling and configuration of preferences.
The present document also addresses the most common telecommunication services.

The present document specifies user tested commands for the languages with the largest number of native speakers in the European Union: English, French, German, Italian and Spanish, as spoken in their respective countries. Future revisions of the present document may include other languages, language versions and ICT commands (methodology guidance is provided in annex A).

The present document does not cover dialogue design issues, the full range of supplementary telecommunications services, performance related issues, natural spoken numbers covering more than one digit (other than "double") or speech output.

ETSI SR 001 *Human Factors (HF); An annotated bibliography of documents dealing with Human*
996 *Factors and disability.*

Doc. type: E/I

Abstract: The present document provides a listing of standardisation documentation relevant to Telecommunications on the subjects of Human Factors and disability and gives a brief outline of the content of the listed standards that are published and provides some comments on their applicability.

The present document is a living document which will be updated at intervals.

ETSI TR 101 *Human Factors (HF); Symbols to identify telecommunications facilities for deaf and*
767 *hard of hearing people; Development and evaluation.*

Doc. type: E/I

Abstract: The present document reports the background research, symbols development and evaluation undertaken to create a European Standard on symbols to identify telecommunications facilities for the deaf and hard of hearing. The symbols defined in the final standard will be applicable to all telecommunications equipment that provide the defined facilities and assistive technologies that are intended to support the deaf and hard of hearing.

ETSI TR 101 *Human Factors (HF); Guidelines for Telecommunication Relay Services for Text*
806 *Telephones.*

Doc. type: E/I

Abstract: The present document gives guidance on the requirements for the provision of relay services in all telecommunications networks. The present document is applicable to all kinds of relay services especially those which enable a text telephone user to converse with a telephone user and to relay services which enable a text telephone user to converse with another text telephone user. It also

applies to "Spoken to spoken" relays (which translate from a speech impaired user) and to videophone relays.

ETSI TR 102 *Human Factors (HF); Supplementary Services; A review of ETSI deliverables.*
015 **Doc. type:** E/I

Abstract: The present document gives the results of a review of the current TC-HF deliverables on Supplementary Services and makes recommendations for improvement.

ETSI TR 102 *Human Factors (HF); Requirements for assistive technology devices in ICT.*
068 **Doc. type:** E/I

Abstract: The present document gives guidance on the needs of older and disabled people for assistive technology devices and the requirements for the interconnection of such devices to Information and Communications Technologies (ICT) systems.

The report considers devices for user interface input (e.g. keyboards) and output (e.g. display content) as well as speech and video transmission. It reviews available transmission technologies (e.g. Bluetooth and DECT) and requirements for transmission protocols.

The present document is applicable to assistive technology devices and information and communication devices which have an interface for communicating with a user.

ETSI TR 102 *Human Factors (HF); Supplementary service codes for use in public network services.*
083 **Doc. type:** E/I

Abstract: The present document describes the use of service codes for supplementary services used in public network services. It was based upon the analysis of the answers to a questionnaire sent out to the whole ETSI members. In October 1997, it was supplemented by follow up questioning and the consideration of relevant ETSI, GSM, CEPT, TETRA and ITU-T documents.

The present document describes the creation of a register of supplementary service codes together with a database to facilitate the entry of the necessary base information.

The register does not include supplementary services used in PBX or Centrex based services. A separate ETSI Standard ES 201 382 [9] describes the application and registration procedures for a service provider wishing to enter a new supplementary service in the ETSI register.

ETSI TR 102 *Human Factors (HF); Potential harmonised UI elements for mobile terminals and services.*
125 **Doc. type:** E/I

Abstract: The present document identifies common, basic tasks and goals of users of mobile telecommunication terminal devices and services. The set of basic,

common functions, through which these goals are achieved, are described and analysed in the perspective of possible harmonisation of User Interface (UI) elements on the most basic level, without restricting the manufacturer's freedom to specific UI implementations. The present document also examines possibilities and highlights obstacles and limitations of such an approach.

The present document addresses the issues above from the end user's perspective, in order to further simplify and enable basic access to mobile ICT devices and services, for all. It shall be regarded as a pre-study of the possibilities and key areas for further work.

The present document integrates, from the practical perspective, results and recommendations of available ETSI Human Factors Standards, Guides and Technical reports, produced under the eEurope initiative, for deployment.

The present document continues the approach taken by ETSI TC HF, developing an ETSI Standard for generic, spoken commands, ES 202 076 [5], an ETSI Standard for the character repertoires, ordering and assignment to the 12-key keypad, [7], an ETSI Guide on design guidelines for ICT products and services in a Design-for-all perspective, [8], a Technical Report on Access to ICT by young people; Issues and Guidelines, [9], and a Technical Report on requirements for assistive technology devices in ICT,[4].

The present document identifies and recommends key areas for further study and guidance on device- and service, manufacturer-, operator- and service provider-independent implementations, covering most basic user actions and belonging functions. Common, basic interactive elements and the familiarity achieved thereby increase the end user transference of learning between devices and services, without restricting the manufacturer's freedom to specific UI implementations.

ETSI TR 103 *Universal Communications Identifier (UCI); Maximising the usability of UCI based*
077 *systems.*

Doc. type: E/I

Abstract: The present document will expand on the issues relating to usability already identified in the following two documents, EG 201 940 [1] and EG 202 067 [2], which identified the critical importance of the usability issues associated with Universal Communications Identifier (UCI) systems.

The present document identifies usability best practice relating to communication services and then considers the implications of applying such best practice to the user tasks necessary for implementation of UCI based services whilst still meeting the relevant User Requirements defined in EG 201 940 [1] (and summarised in annex B).

The present document suggests which of these issues are suitable for expansion into guidelines. Other areas which require further investigation, before guidelines are produced, are highlighted in the relevant clause of the present document. Further illustration of some of the usability issues associated with UCI is raised in annex A. Annex A takes the 6 scenarios that are contained in EG 202 067 [2] and

uses them to highlight potential usability issues associated with UCI. Issues raised in annex A are discussed further in the body of this present document.

It is intended that the present document together with the future guidelines, will provide information and guidance for:

- terminal and service designers (telecommunications and IT)
- service providers (telecommunication and IT)
- designers of external tools (e.g. calendar, address book) that may be used in a UCI context
- user groups
- other Technical Committees within ETSI.

ISO 9241 *Ergonomic requirements for office work with visual display terminals (VDTs).*

Doc. type: E/I

Abstract: Part 1: General introduction:

This standard introduces the multipart standard for the ergonomic requirements for the use of visual display terminals for office tasks; provides some guidance for a user-performance approach; gives an overview of all parts currently published and of the anticipated content of those in preparation; provides some guidance on how to use the standard; describes how conformance to parts of ISO 9241 should be reported.

Part 2: Withdrawn

Part 3: Requirements for Visual Display Terminals.

The standard establishes image quality requirements for the design and evaluation of single- and multi-colour VDTs. The requirements are stated as performance specifications, and the evaluations provide test methods and conformance measurements. This standard applies to the ergonomic design of electronic displays for office tasks.

Part 4: Keyboard requirements

This standard applies to linear detachable keyboards designed for stationary use. It provides guidance on the design of keyboards used for typical office tasks so that the limitations and capabilities of users are considered. It provides guidance based on ergonomic factors for keyboard layout arrangements, the physical characteristics of the individual keys and the overall design of the housing containing the keys. This standard specifies methods for testing conformance by measuring the physical attributes of a keyboard. It also includes a proposed alternative test method for keyboards that do not conform to the physical design requirements and recommendations, based on a user performance test and subjective rating scales.

Part 5: Workstation layout and postural requirements

This standard specifies ergonomic guiding principles which apply to the user requirements, design, and procurement of workstation equipment for office tasks using VDTs. In particular the general principles and requirements specified in this part apply to the standards specifying technical design of furniture and equipment constituting the workplace.

Part 6: Guidance on the work environment

This standard provides guidance on basic principles for the ergonomic design of the work environment and the workstation, taking into account lighting, effects of noise and mechanical vibrations, electrical and magnetic fields and static electricity, thermal environment, space organisation and workplace layout. It is applicable to the work environment and workstation in those work systems where a visual display terminal (VDT) is used for office work. However, it does not specify the technical characteristics of the equipment needed to satisfy those equipment-related guidelines associated with the work environment.

Part 7: Requirements for display with reflections

This standard establishes image quality requirements for VDTs used in luminous environments that may cause reflections from the screen. The requirements are stated as performance or design specifications, and test methods are provided. It applies to the ergonomic design of direct-view electronic displays for office tasks, including such activities as data entry, text processing and interactive inquiry. Office tasks are performed indoors, without exposure to direct sunlight. The recommendations can possibly be appropriate for other tasks, including process control, graphic design and computer-aided design, but their applicability has not been established. It applies to monochrome and multicolour displays and to VDTs for which its test method is suitable.

Part 8: Requirements for displayed colours

This standard describes minimum ergonomic requirements and recommendations to be applied to colours assigned to text and graphic applications and images in which colours are discretely assigned. The specifications in this standard exclude photorealistic images and graphics. This standard applies to both hardware and software for visual display terminals, because both these sources control the presentation and appearance of colour on the display screen.

Part 9: Requirements for non-keyboard input devices

This standard provides requirements and recommendations for the design of non-keyboard input devices. It only includes devices for which there exist sufficient published ergonomic information. This standard applies to several types of non-keyboard input devices designed for stationary use. It gives guidance based on ergonomic factors for the following input devices: mice, pucks, joysticks, trackballs, tablets, overlays, touch sensitive screens, styli and light pens. It gives guidance on

the design of these devices used for typical office tasks so that the limitations and capabilities of users are considered. This standard specifies methods for determining conformance through observation and by measuring the physical attributes of the various devices.

Part 10: Dialogue principles

This Standard provides ergonomic principles formulated in general terms, i.e. they are presented without reference to situations of use, application, environment or technology. These principles are intended to be used in specifications, design and evaluation of dialogues for visual display terminals (VDTs).

Part 11: Guidance on usability

This standard defines usability and explains how to identify the information which is necessary to take into account when specifying or evaluating usability of a visual display terminal in terms of measures of user performance and satisfaction. Guidance is given on how to describe the context of use of the product (hardware, software or service) and the relevant measures of usability in an explicit way. The guidance is given in the form of general principles and techniques, rather than in the form of requirements to use specific methods.

Part 12: Presentation of information

This standard provides ergonomic recommendations for the presentation of information and specific properties of presented information on text-based and graphical user interfaces used for office tasks.

Part 13: User guidance

This standard provides recommendations for user guidance attributes of software user interfaces and their evaluation. User guidance as defined in this standard is information additional to the regular user-computer-dialogue that is provided to the user on request or is automatically provided by the system. In addition to the general guidance provided in this standard, recommendations concerning dialogue-specific user guidance are provided in parts 12, 14, 15, 16 and 17 of ISO 9241. This standard is applicable to interaction components that aid users in recovering from error conditions. User guidance as covered by this standard includes recommendations specific to prompts, feedback and status, error management and on-line help as well as general recommendations common to all these types of user guidance.

Part 14: Menu dialogues

This standard provides conditional recommendations for menus used in user-computer dialogues to accomplish typical office tasks. The recommendations cover menus presented by various techniques including windowing, panels, buttons, fields, etc. These recommendations can be utilized throughout the design process

(e.g. as guidance for designers during design, as a basis for heuristic evaluation, as guidance for usability testing).

Part 15: Command dialogues

This standard provides recommendations for command dialogues used to accomplish typical office tasks using visual display terminals (VDTs). Command dialogues are sequences of instructions provided by the user to the system which, when processed, result in associated system actions. Users input (from recall, rather than selecting from a menu) complete or abbreviated command phrases (e.g. mnemonics, letters, function keys, hot keys) in the order required by the command language syntax and the computer performs the activities initiated by the command(s) and their associated parameters.

Part 16: Direct manipulation dialogues

This standard provides guidance on the design of direct manipulation dialogues. In direct manipulation dialogues the user directly acts on objects on the screen; for example by pointing at them, moving them and/or changing their physical characteristics (or values) via the use of an input device. Such objects are typically concrete, often graphical, representations of abstract software structures or capabilities and generally fall into two categories: task object and interface object.

Part 17: Form filling dialogues

ISO 9241-17 provides conditional recommendations on dialogue design, input design and output design for computer dialogues in which form filling and dialogue boxes are used to accomplish typical office tasks.

ISO 13407 *Human-centred design processes for interactive systems.*

Doc. type: E/I

Abstract: This standard provides guidance on human-centred design activities throughout the life cycle of computer-based interactive systems. It is aimed at those managing design processes and provides guidance on sources of information and standards relevant to the human-centred approach. This standard is concerned with both hardware and software components of interactive systems.

ISO 14915 *Software ergonomics for multimedia user interfaces.*

Doc. type: E/I

Abstract: Part 1: Design principles and framework

This standard establishes design principles for multimedia user interfaces and provides a framework for handling the different considerations involved in their design. It addresses user interfaces for applications that incorporate, integrate and synchronize different media. This includes static media such as text, graphics, or images and dynamic media such as audio, animation, video or media related to other sensory modalities.

Part 3: Media selection and combination

This standard gives recommendations for, and guidance on, the design, selection and combination of interactive user interfaces that integrate and synchronize different media. It addresses user interfaces for applications that incorporate, integrate and synchronize different media.

ISO/IEC
10741-
1:1995

Information technology – User system interfaces – Dialogue interaction – Part 1: Cursor control for text editing

Doc. type: E/I

Abstract: Specifies how incremental cursor control is effected as a result of user interaction with a text editor. Cursor control in form filling and spread sheet applications, cursor control in editing other forms of text such as graphics and cursor control in manipulating simple and complex documents are not covered.

ISO/IEC
11581

Information technology – User system interfaces and symbols – Icon symbols and functions.

Doc. type: E/I

Abstract: Part 1: Icons – General

This standard provides a framework for the development and design of icons and their application on screens capable of displaying graphics as well as text.

Part 2: Object icons

Object icons, which are specified here, are a subset of interactive icons that represent the object making up the domain of a system or application and that users manipulate in doing their jobs. They are distinguished from other icons by the fact that they mediate user interactions with software applications, and they may be moved and opened. Object icons are images that represent functions by using associations with similar physical objects.

Part 3: Pointer icons

ISO/IEC 11581 applies to icons that are shown on a screen, that users can manipulate and interact with, and that represent data or computer system functions. ISO/IEC 11581-3 addresses only pointers. Pointers are icons that are logically attached to a physical input device, and that the user manipulates to interact with other screen elements, see (ISO/IEC 11581-1. This part describes user interaction with and appearance of pointers on the screen. It also specifies how pointers on a screen change appearance to give users feedback.

Part 6: Action icons

ISO/IEC 11581 applies to icons that are shown on a screen, that users can manipulate and interact with, and that represent data or computer system functions. ISO/IEC 11581-6 addresses only action icons. Action icons represent

actions by association with objects that prompt the user to recall the intended actions. ISO/IEC 11581-6 describes user interaction with and appearance of action icons on the screen.

ISO/IEC
FCD13251 *Information technology – Collective standard – Collection of graphical symbols for office equipment.*

Doc. type: E/I

Abstract: Technical programme (standard under development). Scope does not exist.

ISO/IEC
14754:199
9 *Information technology – Pen-Based Interfaces – Common gestures for Text Editing with Pen-Based Systems*

Doc. type: E/I

Abstract: Scope does not exist.

ISO/IEC
FCD18019 *Information technology – Guidelines for the design and preparation of user documentation for application software.*

Doc. type: E/I

Abstract: Technical programme (standard under development). Scope does not exist.

ISO/IEC
18035 *User system interfaces and symbols – Icon symbols and functions for multimedia applications.*

Doc. type: E/I

Abstract: Applies to icons that are shown on a computer screen, that users can manipulate and interact with, and that represent computer system functions. ISO/IEC 18035 describes user interaction with and the appearance of multimedia control icons on the screen. Other forms of icons are covered in ISO/IEC 11581. This International Standard defines a consistent set of icons and related functions that are presented by multimedia applications on a computer screen and that users interact with to control such applications. These control icons typically represents actions by association with conventional controls on hardware devices (for example video recorders and compact disk players) that prompt the user to recall the intended actions.

This standard provides a consistent set of controls for such functions as: Play, Pause, Stop, Rewind, Fast forward, Scan forward, Scan backward, Replay, Play backward, Loop, Record, Go to beginning, Go to previous, Go to next, Go to end, Set volume and Mute.

ISO/IEC
FDIS18036 *Information technology – Icon symbols and functions for World Wide Web browser toolbars*

Doc. type: E/I

Abstract: Technical programme (standard under development). Scope does not

exist.

- ISO/IEC
80416 *Basic principles for graphical symbols for use on equipment.*
Doc. type: E/I
Abstract: Part 1: Creation of symbol originals; Part 2: Form and use of arrows; Part 3: Guidelines for the application of graphical symbols
- ISO/TS
16071 *Ergonomics of human–system interaction – Guidance on accessibility for human–computer interfaces.*
Doc. type: E/I
Abstract: This Technical Specification provides guidance on the design of accessible (work, home, education) software. It covers issues associated with designing accessible software for people with the widest range of visual, hearing, motor and cognitive abilities, including those who are elderly and temporarily disabled. This Technical specification addresses software considerations for accessibility that complement general design for usability covered by ISO 9241–10 to ISO 9241–17 and ISO 13407. This Technical Specification addresses the accessibility of interactive systems. It addresses a wide range of solutions, including office applications, web pages and multimedia. It does not provide recommendations for the design of hardware. This Technical Specification promotes increased usability of systems in combination with assistive technologies, when they are required. It does not cover the behaviour or requirements of assistive technologies themselves (including assistive software).
- DIN
1450:1993–
7 *Lettering; legibility (Schriften; Leserlichkeit).*
Doc. type: Nat
Abstract: The aim of this document is to assure legibility of text (wording) under normal conditions.
Language(s): German.
- DIN 1451–
1:1998–10 *Lettering – Linear–Antiqua without serifes – General (Schriften – Serifenlose Linear–Antiqua – Allgemeines).*
Doc. type: Nat
Abstract: The purpose of this document is to restrict the number of 500 possible variants of fonts to an acceptable number, which are easy to identify. Part 1 deals with definitions, selection criterions and designation examples.
Language(s): German.
- DIN 1451–
2:1986–02 *Typefaces; lineal linear–antiqua; lettering for transportation (Schriften; Serifenlose Linear–Antiqua; Verkehrsschrift).*
Doc. type: Nat
Abstract: Typefaces established in this standard meets the particular requirements

for transportation regarding design, legibility and dimensions.

Language(s): German.

DIN 1451–
3:1987–12 *Lettering; Linear–Antiqua without serifes; lettering for printing (Schriften; Serifenlose Linear–Antiqua; Druckschriften für Beschriftungen).*

Doc. type: Nat

Abstract: This standard establishes a restricted number of character sets selected from the type of lettering Linear–Antiqua without serifes, which are used preferably for printing. The standard contains the type faces and most important dimensions.

Language(s): German.

DIN
15996:199
6–04 *Image and sound production in film and video studios and radio stations – Requirements for work station (Elektronische Laufbild– und Tonbearbeitung in Film–, Video– und Rundfunkbetrieben – Anforderungen an den Arbeitsplatz).*

Doc. type: Nat

Abstract: The document applies to the requirements for work stations for image and sound equipment in film, video and radio production.

Language(s): German.

DIN 4844–
1:2002–11 *Safety marking – Part 1: Dimensions, distance of observation (Sicherheitskennzeichnung – Teil 1: Maße, Erkennungsweiten).*

Doc. type: Nat

Abstract: The document includes additional requirements to ISO 3864 and DIN EN 61310–1 on dimensions and perception width of safety signs. It is of use for a consistent design of safety signs. An overview of the safety signs is specified in DIN 4844–2.

Language(s): German.

DIN 4844–
2:2001–02 *Safety marking – Part 2: Overview of safety signs (Sicherheitskennzeichnung – Teil 2: Darstellung von Sicherheitszeichen).*

Doc. type: Nat

Abstract: The document is of use for a consistent design of safety signs. The design of the safety signs shown followed in cooperation with the “Fachausschuss Sicherheitskennzeichnung des Hauptverbandes der gewerblichen Berufsgenossenschaften” as far as marking for safety purposes and health protection are concerned.

Language(s): German.

JIS S 0011 *Guidelines for all people including elderly and people with disabilities. Marking tactile dots on consumer products.*

Doc. type: Nat

Abstract: This Standard specifies the guideline for marking the tactile symbols on the operating part of various kinds of consumer products with a switch for electric

operation in order to improve the controllability for all users including visually handicapped people and elderly people of weakening eyesight.

Language(s): Japanese and English.

JIS S 0013 *Guidelines for all people including elderly and people with disabilities. Usability of consumer products.*

Doc. type: Nat

Abstract: This standard specifies the auditory signals used as a means to communicate the information about the feedback of operation or the condition of products at the time when the users including the people with visual disabilities, and the elderly people who suffer from lowering of eyesight and hearing use the consumer products. However, fire alarm sound, gas leak alarm sound and crime prevention alarm sound which are controlled by other laws and regulation and, in addition thereto, the electronic chime, sound guide and the sound peculiar to communication instruments such as telephone are excluded.

This Standard applies to the auditory signals of a specific frequency used in general (called beep sound as well). It is recommended to be in accordance with this Standard even when using frequency changing, melody, etc.

Language(s): Japanese and English.

JIS WD
02082003 *Guidelines for older persons and persons with disabilities – information communication equipment and services.*

Doc. type: Nat

Abstract: This Japanese Industrial Standard specifies the basic issues for designers to consider so that mainly older persons and persons with permanent or temporary disabilities may have higher accessibility to information communication equipment and services, such as information processing equipment, communication facility, office machine, software, and Internet.

Language(s): Japanese and English.

JIS WD
02192003 *Design guidelines for older persons and persons with disabilities – Information processing system and communication equipment.*

Doc. type: Nat

Abstract: This Japanese Industrial Standard specifies the guidelines to design and develop accessible and useable interfaces of information communication equipment such as information processing equipment, software, Internet etc. for all persons who have impaired physical, sensory and cognitive functions including particularly older persons and persons with disabilities.

Language(s): Japanese and English.

UNE
139801 EX *Accessibility requirements for computer platforms. Hardware (Requisitos de accesibilidad de las plataformas informáticas. Soporte Físico).*

Doc. type: Nat

Abstract: This standard establishes the specifications to be met by computer hardware components and associated documentation, so that they can be used by individuals with any disability whatsoever.

Furthermore, this standard specifies the needs of the elderly, encompassed by the special needs of all the disabilities, bearing in mind that some, many or all of our abilities are gradually impaired as we age.

This standard does not establish specific standards for adaptive or access hardware (physical emulators) or recommendations for the services provided by designers, manufacturers and distributors of any product related to computer platforms.

It applies to the hardware components of computers, that is, central processing unit (including disk or CD-ROM drives), display, keyboard, mouse, printer, scanner, modem and audio equipment.

Furthermore, standards for non-computer technical aids which adapt peripherals for or ease their use by people with disabilities, for example, head sticks, Morse-code keyboards, document holders or mouse pads, are also outside the scope hereof.

This standard also applies to the documentation supplied with computer hardware.

Language(s): Spanish.

UNE
139802 EX *Computer platform accessibility requirements. Software. (Requisitos de accesibilidad de las plataformas informáticas. Soporte lógico.).*

Doc. type: Nat

Abstract: This standard establishes the specifications to be met by operating environments (operating system and associated user interface), computer applications and associated documentation so that they can be used by individuals with any disability whatsoever.

Furthermore, this standard specifies the needs of the elderly, encompassed by the special needs of all the disabilities, bearing in mind that some, many or all of our abilities are gradually impaired as we age.

This standard is applicable to any type of computer application, irrespective of whether or not it directly interacts with the user. It covers operating systems, windows environments and device drivers. This standard is also applicable to the documentation supplied with the computer application.

Language(s): Spanish.

Bringing Universal Design to the ICT-market – what are the prerequisites?

Publisher: COST 219bis

Year: 2001.

ISBN: 91-973566-1-1

Doc. type: Other std.

Abstract: Proceedings of the Cost219bis seminar, Stockholm, 19 June 2001.

Seminar arranged by COST 219bis, SVERI – Swedish Committee for Rehabilitation International, the Swedish Handicap Institute, the Swedish Disability Ombudsman

and Telia AB.

Language(s): English.

CUU 2000 Conference Proceedings on Universal Usability.

Publisher: ACM Press

Year: 2000.

ISBN: 1-58113-314-6

Doc. type: Other std.

Abstract: This conference is a beginning of the expanding role SIGCUI is playing in terms of promoting human-computer interaction. The goal of the Conference on Universal Usability is to bring together diverse communities of users and researchers to discuss universal access to the digital world.

Language(s): English.

Nordic Guidelines for Computer Accessibility.

Publisher: Nordic Cooperation on Disability, Box 510, 162 15 Vällingby, Sweden, www.nsh.se, nsh@nsh.se

Year: 1998.

ISBN: 91-86954-47-4

Doc. type: Other std.

Abstract: This publication applies the approach of Design for All. It provides public and private procurers with accessibility requirements to be included in or referred to in calls-for-proposal for personal computer systems and similar systems. It also serves as a guidance to ICT strategists, ICT designers and ICT standardisation groups.

Language(s): English.

User-Centred Requirements for Software Engineering Environments.

Publisher: Springer-Verlag Nato ASI Serie

Year: 1994.

ISBN: 0387576533

Doc. type: Other std.

Abstract: Proceedings of the NATO Advanced Research Workshop on User-Centred Requirements for Software Engineering Environments held in Bonas, France, September 5 - 11, 1991. Theme 1: Design Activities and Representations for Design / Theme 2: Code Representation and Manipulation / Theme 3: Technological Solutions / The Impact of Design Methods and New Programming Paradigms.

Language(s): English.

Children's Computer Play Centre: summary report.

Publisher: The Swedish Handicap Institute, Box 510, 162 15 Vällingby, Sweden, www.hi.se

Year: 2002.

Author: Birgitta Göthberg.

Doc. type: Project reports

Abstract: Summary report of the Children's Computer Centres ("Datatek") project.

Language(s): English and Swedish.

Computer-assisted adaptation of the home and working environment for disabled persons (Datorstödd anpassning av bostads- och arbetsmiljö för rörelsehindrade).

Publisher: Lund Institute of Technology, Lund University, Box 118, 221 00 Lund, Sweden, www.lth.se

Year: 1993.

Authors: Joakim Eriksson, Gerd Johansson.

Doc. type: Project reports

Abstract: Aid for the planning and adaptation of the home and work environments of disabled people.

Language(s): Swedish.

Conference report: EUD Sign Languages Project 1996-1997. Sign Languages in the European Union: Current Status and Future Perspectives.

Publisher: European Union of the Deaf

Year: 1997.

Author: European Union of the Deaf.

Doc. type: Project reports

Abstract: About full citizenship through sign languages.

Language(s): English.

Design for All (ICTSB Project Team).

Publisher: European Commission

Year: 2000.

Authors: Miesenberger Klaus, Klaus Joachim, Zagler Wolfgang, Miesenberger Klaus, Klaus Joachim, Zagler Wolfgang, ICTSB Project Team.

Doc. type: Project reports

Abstract: The main goal of this report is to identify the future standardisation needs for ICT in order to create a society that is accessible to all citizens, i.e. avoid a digital divide between those that can use ICT and those that cannot.

Language(s): English.

Report on Consumer Requirements relating to the Information Society.

Publisher: ANEC, av. Tervueren 36, 1040 BXL, Belgium, www.anec.org, : info@anec.org

Year: 2003.

Author: ANEC

Doc. type: Project reports

Abstract: The opportunities offered by the information society considerably affect the lives of all consumers. Hence, it is crucial to ensure interoperability of products and efficient consumer protection across borders.

Standards, which are a useful means of establishing adequate levels of safety, security of information, interoperability and most importantly, accessibility to all consumers are required. It is equally vital that any standard elaborated for information society products and services take the consumer view into account. To be able to influence standardisation in the fast moving Information and Communication Technology (ICT) sector, ANEC recently published a report on Consumer Requirements in Standardisation related to the Information Society. This ANEC report was elaborated by the ANEC ICT Working Group and has both a political and a practical dimension.

In its report, ANEC calls for the creation of products, systems, services that are accessible and usable by people with the widest possible range of abilities. New technological developments can, in fact, help disabled people but they can also be very high barriers. The aim of the ANEC Consumers Requirements document is to avoid any disadvantages.

Language(s): English.

Unified Access to Computer Systems by People with Disabilities.

Publisher: RNIB (Royal National Institute for the Blind)

Year: 1996.

Author: ACCESS Consortium.

Doc. type: Project reports

Abstract: Meeting Proceedings in the framework of the ACCESS project, 1 October 1996, Portland Place, London W1.

Language(s): English.

Web resources for people with disabilities : final report (Bättre webbplatser för personer med funktionsnedsättning : kartläggning, utvärdering och användartester för bättre utformning av webbplatser för personer med funktionsnedsättning: slutrapport).

Publisher: The Swedish Handicap Institute, Box 510, 162 15 Vällingby, Sweden, <http://www.hi.se>

Year: 2001.

Authors: Mari Andersson, Tomas Berns, Anna Schömer.

Doc. type: Project reports

Abstract: Survey, evaluation and user tests for better design of web sites for persons with functional disorder. Available in pdf-format at:

<http://www.hi.st/itipraktiken/kognitiva/undersidor/webbplatser.pdf>

Language(s): Swedish.

3rd ERCIM Workshop: User Interfaces for All.

Doc. type: Other publications

Abstract: Proceedings of the 3rd ERCIM Workshop on User Interfaces for All, ERCIM Working Group UI4ALL, Obernai, France, 2–4 November 1997

Language(s): English.

7th ERCIM Workshop User Interfaces for all, Special Theme: Universal Access.

Publisher: INRIA–Lorraine

Year: 2002.

Authors: Carbonell Noelle, Stephanidis Constantine.

Doc. type: Other publications

Abstract: Proceedings of the 7th ERCIM Workshop 'User Interfaces for all', Special Theme: Universal Access, held in Paris (Chantilly), 24–15 October 2002. The official Workshop Proceedings will be published by Springer as part of LNCS Series, in the subline 'State-of-the-Art Surveys'.

Language(s): English.

Accessibility guidelines and scope of formative HCI design input: Contrasting two perspectives.

Doc. type: Other publications

Abstract: In A. Kobsa & C. Stephanidis (Eds), Proceedings of the 5th ERCIM Workshop on “User Interfaces for All”, Dagstuhl, Germany, 28 November – 1 December (pp. 119–130).

Language(s): English.

Accessibility Guidelines: Current status and future prospects in standardisation.

Doc. type: Other publications

Abstract: In C. Stephanidis (Ed.), Universal Access in HCI: Towards an Information Society for All – Volume 3 of the Proceedings of the 9th International Conference on Human–Computer Interaction (HCI International 2001), New Orleans, Louisiana, USA, 5–10 August (pp. 622–626). Mahwa

Language(s): English.

Access to Graphical User Interfaces by Blind People.

Publisher: RNIB (Royal National Institute for the Blind)

Year: 1991.

Authors: Stephanidis Constantine, Savidis A. Antonios, Homatas Gregory.

Doc. type: Other publications

Abstract: The objective of this book is to review and analyse in perspective the various issues related to the accessibility of GUIs by blind people and to identify and suggest possible solutions.

Language(s): English.

Adaptive user Support: Ergonomic Design of manually and Automatically Adaptable

Software.

Publisher: Lawrence Erlbaum Associates

Year: 1994.

Author: Oppermann Reinhard.

Doc. type: Other publications

Abstract: The potential of software applications to solve an array of office and administrative problems is increasing faster than the ability of users to exploit it. We need to make systems easier to learn and more comfortable to use. This book reports a new major advance in the effort to accomplish both goals.

Language(s): English.

Addressing Cultural Diversity through Unified Interface Development.

Doc. type: Other publications

Abstract: In G. Salvendy, M.J. Smith & R.J. Koubek (Eds.), Design of Computing Systems: Cognitive Considerations [Proceedings of the 7th International Conference on Human-Computer Interaction (HCI International '97)], San Francisco, USA, 24-29 August (vol. 1, pp. 165-168)

Language(s): English.

An Accessible Word Processor for Disabled People.

Publisher: Osterreichische Computer Gesellschaft

Year: 2000.

Authors: Antona M, Stephanidis C.

Doc. type: Other publications

Abstract: In R. Vollmar & R. Wagner (Eds.), Proceedings of the 7th International Conference on Computers Helping People with Special Needs (ICCHP 2000), Karlsruhe, Germany, 17-21 July (pp. 689-696).

Language(s): English.

Beyond ALT text: making the Web Easy to Use for Users with Disabilities.

Publisher: Nielsen Norman Group, www.NNgroup.com

Year: 2001.

Authors: Kara Pernice Coyne, Jakob Nielsen.

Doc. type: Other publications

Abstract: 75 Best Practices for Design of Websites and Intranets, Based on Usability Studies with People Who Use Assistive Technology.

Language(s): English.

Building Accessible Websites

Publisher: New Riders

Year: 2003.

ISBN: 0-7357-1150-X

Author: Clark Joe.

Doc. type: Other publications

Abstract: This book teaches how and why to use Web accessibility techniques, with an emphasis on Phased accessibility that scales to the needs of small, medium, and large budgets. It shows you affordable, technically manageable ways to make a website to people with disabilities.

Language(s): English.

Computers Helping People with Special Needs: 8th International Conference, Icchp 2002, Linz, Austria, July 15-20, 2002: Proceedings.

Publisher: Centre for educational technology interoperability standards.

Year: 2002.

ISBN: 3540439048

Editors: Joachim Klaus, Wolfgang Zagler, Valery N. Shlyannikov, K. Miesenberger

Doc. type: Other publications

Abstract: As given in the title.

Language(s): English.

Constructing Accessible Web Sites.

Publisher: Glasshaus, Arden House, 1102 Warwick Rd, Acocks Green, Birmingham, B27 6BH, U.K, www.glasshaus.com

Year: 2002

ISBN: 1904151000

Authors: Jim Thatcher, Michael Burks, Sarah Swierenga, Cynthia Waddell, Bob Regan, Paul Bohman, Shawn Lawton Henry and Mark Urban

Doc. type: Other publications

Abstract: The purpose of this book is to enable web professionals to create and retrofit accessible websites quickly and easily. It includes discussion of the technologies and techniques that are used to access websites, and the legal stipulations and precedents that exist in the US and around the world. The main body of the book is devoted to the business of making websites and their content accessible: testing techniques, web development tools, and advanced techniques. The book concludes with a quick reference checklist for creating accessible websites.

This is a practical book with lots of step-by-step examples, supported with a Section 508 checklist enabling developers to refer to the book as they work as well as a complete list of accessibility testing and approval sites.

Language(s): English

Consumer Requirements for Standardisation in relation to the Information Society – January 2003.

Doc. type: Other publications

Abstract: The opportunities offered by the information society considerably affect the lives of all consumers. Hence, it is crucial to ensure interoperability of products

and efficient consumer protection across borders.

Standards, which are a useful means of establishing adequate levels of safety, security of information, interoperability and most importantly, accessibility to all consumers are required. It is equally vital that any standard elaborated for information society products and services take the consumer view into account. Among the generic consumer requirements to be taken into account when writing ICT standards, the Design for all criteria holds a prominent position. In its report, ANEC calls for the creation of products, systems, services that are accessible and usable by people with the widest possible range of abilities. New technological developments can, in fact, help disabled people but they can also be very high barriers. The aim of the ANEC Consumers Requirements document is to avoid any disadvantages.

This ANEC report was elaborated by the ANEC ICT Working Group and has both a political and a practical dimension. The report offers guidance to standards makers and consumer representatives on Technical Committees in their standardisation work.

Language(s): English.

Crisp & Clear – European Magazine on Design for All, No 3, 2000. Theme: Information Society Technology.

Publisher: European Institute for Design and Disability, EIDD, Ireland, www.design-for-all.org, kb@dcft.dk

Year: 2000.

Author: Editor: Karin Bendixen.

Doc. type: Other publications

Abstract: “Crisp & Clear” – European magazine on Design for All. A publication about various aspects of Design for All and accessibility. The aim of the magazine is to promote a society for all and to attract attention to the need for Design for All within the public and the private sector. The articles can be read on www.design-for-all.org.

With this project, EIDD’s aim is to generate increased understanding among the target groups for the diversity of citizens and their needs across age and impairments and to arouse an interest in promoting the development and application of Design for All concepts.

‘Crisp & Clear’ deals with Design for All in the built environment, transport, product design, information and communications technology as well as services. So the magazine has a large target group: politicians, government officials, architects, town planners, designers and manufacturers. The magazine draw attention to examples of good practise from European countries, promote new approaches to design, and also improve the understanding and demonstrate the extent of problems related to disability and age.

Language(s): English with summaries in Spanish and Italian.

Description of computer programs in relation to different levels of learning disabilities (Beskrivning av datorprogram i förhållande till begåvningsnivåer).

Publisher: The Swedish Handicap Institute, Box 510, 162 15 Vällingby, Sweden, www.hi.se

Year: 1992.

Author: Anita Hildén.

Doc. type: Other publications

Abstract: Learning disabilities and software program design.

Language(s): Swedish.

Design for All in the TIDE ACCESS Project.

Publisher: IOS Press

Year: 1998.

Authors: Stephanidis C, Emiliani P.L.

Doc. type: Other publications

Abstract: In I. Placencia Porrero, & E. Ballabio (Eds.), Improving the Quality of Life for the European Citizen. Technology for Inclusive Design and Equality – Proceedings of the 3rd TIDE Congress, Helsinki, Finland, 23–25 June.

Language(s): English.

Designing for Accessibility: Reflections on the use of Human Factors Design Guidelines

Publisher: Chapman & Hall.

Year: 1997.

Author: Stephanidis Constantine.

Doc. type: Other publications

Abstract: In S. Howard, J. Hammond & G. Lindgaard (Eds.), Proceedings of the 6th International Conference on Human–Computer Interaction (INTERACT '97), Workshop on Guidelines for the design of HCI for people with Disabilities, Sidney, Australia, 14–18 July (3 pages).

Language(s): English.

Designing the User Interface of an Interactive Learning Environment for Children.

Publisher: ERCIM

Year: 2000.

Authors: Grammenos D, Paramythis C, Stephanidis C..

Doc. type: Other publications

Abstract: In C. Stephanidis (Ed.), Proceedings of the ERCIM WG UI4ALL one-day joint workshop with i3 Spring Days 2000 on "Interactive Learning Environments for Children"

Language(s): English.

Developing Web Browsers Accessible to All: Supporting User-Adapted Interaction.

Doc. type: Other publications

Abstract: In G. Anogiannakis, C. Buhler, & M. Soede (Eds.), Proceedings of the 4th European Conference for the Advancement of Assistive Technology (AAATE '97), Porto Carras, Greece

Language(s): English.

eEurope 2002: Accessibility of Public Web Sites and their Content

Publisher: Focal Press

Year: 2001.

Author: European Commission.

Doc. type: Other publications

Abstract: Communication from the Commission to the Council, The European Parliament, The economic and Social Committee, and the Committee of regions (Brussels, 25/9/2001, COM(2001) 529 final.

Language(s): English.

ICT Standardisation and Disability in Europe. European Policy Workshop.

Publisher: Danish Centre for Technical Aids, Gregersensvej, 2630 Taastrup, Denmark, www.hmi.dk

Year: 1996

ISBN: 87-89407-59-8

Author: Åse Brandt (ed.)

Doc. type: Other publications

Abstract: The workshop was organised by Danish Centre for Technical Aids and was held in Amsterdam 1996. The outcome of the workshop is a European consensus on a number of conclusions and recommendations for actions and in addition a lot of suggestions and good ideas. These are presented in the report. The recommendations fall into three categories, market awareness, improvement of standardisation processes and need for legislation.

Language(s): English

Interface Design for Disabled People: Eliciting User Centred Design Constraints.

Doc. type: Other publications

Abstract: In G. Salvendy, M.J. Smith & R.J. Koubek (Eds.), Design of Computing Systems: Cognitive Considerations [Proceedings of the 7th International Conference on Human-Computer Interaction (HCI International '97)], San Francisco, USA, 24-29 August (vol. 1, pp. 437-440)

Language(s): English

Managing Accessibility Guidelines during User Interface Design.

Publisher: Taylor and Francis

Year: 2001

Authors: Stephanidis Constantine, Akoumianakis Demosthenes.

Doc. type: Other publications

Abstract: Appears in C. Nicolle, & J. Abascal (Eds.), *Inclusive Design Guidelines for HCI* (pp. 81–96).

Language(s): English.

Maximum Accessibility: Making Your Web Site More Usable for Everyone.

Publisher: Addison–Wesley Publishing Company

Year: 2003

Authors: Slatin M. John, Rush Sharron.

Doc. type: Other publications

Abstract: This book is a comprehensive resource for creating Web sites that comply with new U.S. accessibility standards and conform to the World Wide Web Consortium's Web Content Accessibility Guidelines 1.0.

This book offers an overview of key issues, discusses the standards in depth, and presents practical design techniques, up to date technologies, and testing methods to implement these standards for maximum accessibility.

Language(s): English.

Policy perspectives on Design for All.

Doc. type: Other publications

Abstract: In H–J. Bullinger & J. Ziegler (Eds.), *Human–Computer Interaction: Communication, Co–operation, and Application Design [Proceedings of the 8th International Conference on Human–Computer Interaction (HCI International '99)]*, Munich, Germany, 22–26 August (vol. 2, pp. 868–872).

Language(s): English.

Promoting Universal Design in Healthcare Telematics.

Doc. type: Other publications

Abstract: In C. Stephanidis (Ed.), *Universal Access in HCI: Towards an Information Society for All – Volume 3 of the Proceedings of the 9th International Conference on Human–Computer Interaction (HCI International 2001)*, New Orleans, Louisiana, USA, 5–10 August (pp. 50–54)

Language(s): English.

Re–thinking HCI in terms of universal design

Publisher: Lawrence Erlbaum Associates

Year: 2001.

Authors: Akoumianakis D, Stephanidis C.

Doc. type: Other publications

Abstract: In C. Stephanidis (Ed.), *Universal Access in HCI: Towards an Information Society for All – Volume 3 of the Proceedings of the 9th International Conference on Human–Computer Interaction (HCI International 2001)*, New Orleans, Louisiana, USA, 5–10 August (pp. 8–12). Mahwah

Language(s): English.

Screen readers for visually impaired persons (Skärmläsare för synskadade: provningsrapport).

Publisher: The Swedish Handicap Institute, Box 510, 162 15 Vällingby, Sweden, www.hi.se

Year: 2001.

Author: Dan Lundman.

Doc. type: Other publications

Abstract: Report from tests made by the Swedish Handicap Institute, of three screen readers.

Language(s): Swedish.

Telecommunications and access for deaf people in the European Union and the United States

Publisher: University of California

Year: 1994.

Author: H. Stevens.

Doc. type: Other publications

Abstract: Master of law papers: telecommunications and access for deaf people.

Language(s): English.

Telecommunications – Guidelines for Accessibility.

Publisher: COST 219bis, RNIB Scientific Research Unit, Falcon Park, Neasden Lane, London NW10 1RN.

Year: 1999.

ISBN: 1 86048 022

Author: J. Gill.

Doc. type: Other publications

Abstract: This publication gives some examples of features on telecommunication terminals and systems which would be beneficial to people with disabilities, and gives the web address where detailed guidelines are available. For more information see <http://www.tiresias.org/telecoms/>

Language(s): English.

The Chord Keyboard Report: writing clear Text with the Speed of Speech.

Publisher: The Swedish Handicap Institutet, Box 510, 162 15 Vällingby, Sweden, www.hi.se

Year: 1998.

Author: Olof Dopping.

Doc. type: Other publications

Abstract: About applications in the SDP (Service to Disabled People) area, as Text

telephone interpretation, Key-to-speech system. Chapters: 2. Purpose and target group, 3. A short history of fast writing and typing, 4. Chord keyboards: principle, 5. Chord keyboards: requirements, 6. Chord keyboards: choice of type, 7. Host systems and associated facilities, 8. Users, training and practising, 9. Applications, 10. Costs, savings and benefit, 11. Competition to chord keyboards, 12. A look into the future, 13. Swedish summary

Language(s): English.

The impact of new technologies on the quality of life of people with disabilities.

Publisher: Council of Europe Publishing, F-67075 Strasbourg, France,

<http://book.coe.int>, publishing@coe.int

Year: 2002.

ISBN: 92-871-5007-9

Authors: Council of Europe, Theo Bougie.

Doc. type: Other publications

Abstract: Analysis of the impact of new technologies on the quality of life of people with disabilities, including consumer and assistive technology.

The study gives examples of good practice and illustrates the strengths, weaknesses, opportunities and threats of new technologies for enhancing the quality of life of people with disabilities. Such enhancement calls for a coherent set of actions, including legislation, service delivery, design for all, standardisation and market development.

Language(s): English.

Toward an Information Society for All: An International R&D Agenda.

Journal: International Journal of Human-Computer Interaction, 10 (2), 107-134.

Publisher: Lawrence Erlbaum and Associates

Year: 1998

Author: Stephanidis C. (Ed.)

Doc. type: Published articles

Abstract: This article introduces the visionary goal of an *Information Society for all*, in which the principles of *universal access* and *quality in use* prevail and characterise computer-mediated human activities. The paper is based on the outcome of the first meeting of the International Scientific Forum "Towards an Information Society for All", which took place during the Seventh International Conference on Human Computer Interaction (HCI International '97). The objective of this meeting was to define a short-, medium-, and long-term international R&D (Research and Development) agenda in the context of the emerging Information Society, based on the principle of *designing for all users*.

The proposed agenda addresses technological and user-oriented issues, application domains and support measures, which are necessary for the establishment of a favourable environment for the creation of an Information Society acceptable to *all* citizens.

Language(s): English.

Toward an Information Society for All: HCI challenges and R&D recommendations.

Journal: International Journal of Human-Computer Interaction, 11 (1), 1-28.

Publisher: Lawrence Erlbaum and Associates

Year: 1999.

Authors: Dardailler D, Emiliani P.L, akovidis I, Jenkins P, Karshmer A, Korn P., Marcus A, Murphy H, Oppermann C, Stary C, Tamura H, Tscheligi M, Ueda H, Weber G, Ziegler J.

Doc. type: Published articles

Abstract: This article reports on the results of the second meeting and workshop of the International Scientific Forum "Towards an Information Society for All", that took place in Crete, Greece, June 15-16, 1998.

In particular, it elaborates on the international Research and Development (R&D) agenda (see previous reference) which resulted from the first meeting and workshop of the Forum.

The present document elaborates on the proposed R&D agenda by identifying Human Computer Interaction (HCI) challenges and clusters of concrete recommendations for international collaborative Research and Technological Development (RTD) activities.

Four clusters of recommendations are proposed, of which the first three are intended to facilitate reaching technological targets, while the fourth comprises accompanying measures.

The three technological clusters are related to the corresponding transitions from: (a) productivity tools to environments of use; (b) individual users to communities of users; and (c) computer-assisted business tasks to computer-mediated human activities.

The fourth cluster covers support (horizontal) actions needed to establish a favorable environment for the creation of an Information Society acceptable to *all* citizens. Each cluster is elaborated by means of specific recommendations, plausible RTD objectives and likely or expected outcomes.

Language(s): English.

Unified User Interface Development

Publisher: Lawrence Erlbaum Associates

Year: 2002.

Authors: Stephanidis Constantine, Savidis Antonios.

Doc. type: Other publications

Abstract: Appears in J. Jacko & A. Sears (Eds.), The Human-Computer Interaction Handbook

Language(s): English.

Unified User Interfaces: from design to implementation.

Doc. type: Other publications

Abstract: In H-J. Bullinger & J. Ziegler (Eds.), *Human-Computer Interaction: Communication, Co-operation, and Application Design* [Proceedings of the 8th International Conference on Human-Computer Interaction (HCI International '99)], Munich, Germany, 22-26 August (vol. 2, pp. 782-786).

Language(s): English.

Universal Design in Human-Computer Interaction

Publisher: Taylor & Francis

Year: 2001.

Authors: Stephanidis Constantine, Akoumianakis Demosthenes.

Doc. type: Other publications

Abstract: Appears in W. Karwowski (Ed.), *International Encyclopaedia of Ergonomics and Human Factors*, Vol.1, pp. 741-745.

Language(s): English.

Usability: The Site Speaks for Itself.

Publisher: Glasshaus

Year: 2002.

Authors: Braun Kelly, Gadney Max, Haughey Matthew.

Doc. type: Other publications

Abstract: This book is for anyone wanting to gain an understanding of how to design and implement usable web sites.

Language(s): English

User Interfaces for All – Concepts, Methods, and Tools

Doc. type: Other publications

Publisher: Lawrence Erlbaum Assoc

Year: 2001

ISBN: 0805829679

Author: Constantine Stephanidis (editor)

Abstract: *User Interfaces for All* is dedicated to the issues of Universal Design and Universal Access in the field of Human-Computer Interaction (HCI).

Universal Design (or Design for All) is an inclusive and proactive approach seeking to accommodate diversity in the users and usage contexts of interactive products, applications, and services, starting from the design phase of the development life cycle.

The on-going paradigm shift toward a knowledge-intensive information society is already bringing about radical changes in the way people work and interact with each other and with information.

The requirement for Universal Design stems from the growing impact of the fusion of the emerging technologies, and from the different dimensions of diversity, which are intrinsic to the information society.

Language(s): English.

WEB Accessibility for People with Disabilities.

Publisher: CMP Books

Year: 2000.

Author: Paciello G. Michael.

Doc. type: Other publications

Abstract: – Comply with all legal mandates and standards, Master HTML enhancements for accessibility, Employ the Best accessibility tools.

Language(s): English.

Accessibility to the Information Society (Accesibilidad a la Sociedad de la Información).

Journal: Minusval, vol. 2001, number 128, p. 22–25. ISSN 0210–0622

Author: Cristina Rodríguez–Porrero.

Doc. type: Published articles

Abstract: This article is included in a dossier: "The Information Society. New Technologies for all" ("La Sociedad de la Información. Nuevas tecnologías para todos"). The author explains the main aspects to be considered in order to really create an Information Society for all, listed as follows:

- Prior identification of needs
- Design for all principles
- User participation
- Support from the Administration
- Entrepreneurial involvement
- Standardisation
- Development of a code of "Accessibility Ethics"

Language(s): Spanish.

New Technologies for All (Nuevas tecnologías para todos.).

Journal: Minusval, vol. 2001, number 128, p. 13–16. ISSN 0210–0622

Author: Encarnación Blanco.

Doc. type: Published articles

Abstract: This article is included in a dossier: "The Information Society. New Technologies for all" ("La Sociedad de la Información. Nuevas tecnologías para todos")

After an introduction about the obstacles disabled people have to face up to, the author explains the positive actions that can be implemented in order to apply the concept and principles of Design for all. In particular, there is a list of the main European initiatives in this area, as well as the main actions carried out by the IMSERSO (Spanish National Institute of Migrations and Social Affairs–Ministry of Labour and Social Affairs)

Language(s): Spanish.

New Technologies in Europe (Nuevas tecnologías en Europa: e-Europa).

Journal: Minusval, vol. 2001, number 128, p. 18–19. ISSN 0210–0622

Author: Inmaculada Placencia Porrero.

Doc. type: Published articles

Abstract: This article is included in a dossier: "The Information Society. New Technologies for all" ("La Sociedad de la Información. Nuevas tecnologías para todos")

Description of the European initiative: e–Europe, introduced by Mr Romano Prodi in 1999. The main objective of e–Europe is to make all the advantages of the Information Society available to all the European citizens.

Language(s): Spanish.

Users with Disability Need Not Apply? Web Accessibility in Ireland, 2002.

Journal: First Monday, vol. 7, number 12, 2002. ISSN 1396–0466

Author: Barry McMullin.

Doc. type: Published articles

Abstract: Users with a variety of disabilities can potentially benefit greatly from using the Internet to mediate their access to products and services; however, this relies on the proper server side design of Web sites to facilitate such access. Design of accessible Web content is codified in the Web Content Accessibility Guidelines (WCAG) 1.0 of the World Wide Web Consortium (W3C). Compliance with WCAG (and/or similar, derivative, guidelines) is now the subject of considerable activity, both legal and technical, in many different jurisdictions. Within this overall international context, this paper reports on a project to carry out an automated baseline survey of WCAG compliance of Web sites based in Ireland. Summary results are presented and discussed.

Recommendations are made for policy action, relevant both in Ireland and beyond.

Language(s): English.

Toward an Information Society for All: An International R&D Agenda.

Journal: International Journal of Human–Computer Interaction, 10 (2), 107–134.

Year: 1998

Author: Stephanidis C. (Ed.)

Doc. type: Published articles

Abstract: This article introduces the visionary goal of an *Information Society for all*, in which the principles of *universal access* and *quality in use* prevail and characterise computer–mediated human activities. The paper is based on the outcome of the first meeting of the International Scientific Forum "Towards an Information Society for All", which took place during the Seventh International Conference on Human Computer Interaction (HCI International '97). The objective of this meeting was to define a short–, medium–, and long–term international R&D

(Research and Development) agenda in the context of the emerging Information Society, based on the principle of *designing for all* users.

The proposed agenda addresses technological and user-oriented issues, application domains and support measures, which are necessary for the establishment of a favourable environment for the creation of an Information Society acceptable to *all* citizens.

Language(s): English.

Toward an Information Society for All: HCI challenges and R&D recommendations.

Journal: International Journal of Human-Computer Interaction, 11 (1), 1-28.

Year: 1999.

Authors: Dardailler D, Emiliani P.L, akovidis I, Jenkins P, Karshmer A, Korn P., Marcus A, Murphy H, Oppermann C, Stary C, Tamura H, Tscheligi M, Ueda H, Weber G, Ziegler J.

Doc. type: Published articles

Abstract: This article reports on the results of the second meeting and workshop of the International Scientific Forum "Towards an Information Society for All", that took place in Crete, Greece, June 15-16, 1998.

In particular, it elaborates on the international Research and Development (R&D) agenda (see previous reference) which resulted from the first meeting and workshop of the Forum.

The present document elaborates on the proposed R&D agenda by identifying Human Computer Interaction (HCI) challenges and clusters of concrete recommendations for international collaborative Research and Technological Development (RTD) activities.

Four clusters of recommendations are proposed, of which the first three are intended to facilitate reaching technological targets, while the fourth comprises accompanying measures.

The three technological clusters are related to the corresponding transitions from: (a) productivity tools to environments of use; (b) individual users to communities of users; and (c) computer-assisted business tasks to computer-mediated human activities.

The fourth cluster covers support (horizontal) actions needed to establish a favorable environment for the creation of an Information Society acceptable to *all* citizens. Each cluster is elaborated by means of specific recommendations, plausible RTD objectives and likely or expected outcomes.

Language(s): English.

3.9 Buildings and interiors

ResAP (77) 8 *Council of Europe Resolution AP (77) 8 on adaptation of housing and surrounding areas to the needs of disabled persons.*

Doc. type: E/I

Abstract: This Resolution aims to provide basic concepts, principles and common standards as a starting point in order to initiate harmonisation and eventually arrive at internationally acceptable norms.

BFS 1993:57 *Building regulations of The National Board of Housing, Building and Planning (Boverkets byggregler : BFS 1993:57 med ändringar till och med 2002:19).*

Doc. type: Nat

Abstract: Official regulations. Appendix with relevant standards etc.

Language(s): English and Swedish.

DIN 18024–
2:1996–11 *Construction of accessible buildings – Part 2: Publicly accessible buildings and workplaces, design principles (Barrierefreies Bauen – Teil 2: Öffentlich zugängige Gebäude und Arbeitsstätten, Planungsgrundlagen).*

Doc. type: Nat

Abstract: The document deals with the planning, construction and interiors of publicly accessible buildings or sections of buildings and of workplaces which are suitable for disabled employees. Outdoor facilities are also included. It also applies by analogy to building alterations and changes of use.

Language(s): German.

DIN 18025–
1:1992–12 *Accessible dwellings; dwellings for wheel chair users, design principles (Barrierefreie Wohnungen; Wohnungen für Rollstuhlbenutzer; Planungsgrundlagen).*

Doc. type: Nat

Abstract: This document applies to the design, execution, equipment, and modernizations of new tenanted and cooperative dwellings which are suitable for wheel-chair users and such estates.

Language(s): German.

DIN 18025–
2:1992–12 *Accessible dwellings; design principles (Barrierefreie Wohnungen; Planungsgrundlagen).*

Doc. type: Nat

Abstract: This document applies to the design, execution, equipment, and modernizations of accessible new tenanted and cooperative dwellings and such estates.

Language(s): German.

DS *General accessibility (Tilgængelighed for alle).*

- 3028:2001 **Doc. type:** Nat
Abstract: The standard defines requirements which aim at ensuring general accessibility (including accessibility for handicapped persons) to buildings and facilities as well as the access to these. The standard is divided into six categories for buildings: Buildings which are open to the public; Industrial and commercial building; House building; Buildings for private use; House building for elderly and handicapped person requiring care and Summer houses. For each category, the standard defines the functional requirements which must be met and, in addition, it provides recommendation in a number of matters.
Language(s): Danish and English (essential parts).
- UNE
41500:2001 *Accessibility in building and urbanism. Design general criteria. (Accesibilidad en la edificación y el urbanismo. Criterios generales de diseño.)*
IN **Doc. type:** Nat
Abstract: This technical report specifies the accessibility in building and urbanism with general criteria.
Language(s): Spanish and English .
- UNE
41501:2002 *Symbol of accessibility for mobility. Rules and grades of use. (Símbolo de accesibilidad para la movilidad. Reglas y grados de uso.)*
Doc. type: Nat
Abstract: This standard specifies the design of the symbol of accessibility for mobility, as well as the rules and grades of use.
Language(s): Spanish and English.
- UNE
41520:2002 *Accessibility in building. Horizontal communication elements. (Accesibilidad en la edificación. Espacios de comunicación horizontal.)*
Doc. type: Nat
Abstract: It establishes the horizontal communication elements, to ensure the accessibility in building.
Language(s): Spanish and English.
- UNE
41522:2001 *Accessibility in building. Accesses to the buildings. (Accesibilidad en la edificación. Accesos a los edificios.)*
Doc. type: Nat
Abstract: It establishes the criteria for the accesses to the buildings, to ensure the accessibility.
Language(s): Spanish and English.
- UNE
41523:2001 *Accessibility in building. Sanitary spaces. (Accesibilidad en la edificación. Espacios higiénico-sanitarios.)*
Doc. type: Nat
Abstract: This standard specifies the requirements of the sanitary spaces,

bathrooms, etc, to ensure the accessibility to them.

Language(s): Spanish and English.

Build to avoid handicap (Bygg ikapp Handikapp).

Publisher: Hjälpmedelsinstitutet & Svensk Byggtjänst, HI, box 510,162 15 Sthlm, Sv Byggtjänst, 113 87 Sthlm,, Sweden, www.hi.se , www.byggtjanst.se, : registrator@hi.se, kundtjanst@byggtjanst.se

Year: 2001.

ISBN: 91-7332-966-5

Doc. type: Other std.

Abstract: Facts and recommendations about how to design buildings, interiors and outdoor environment to make it accessible and useable for all.

Language(s): Swedish.

Short guidelines for experts control (Lathund för sakkunnigkontroll : komplement till Bygg ikapp handikapp, utgåva 3).

Publisher: Swedish Building Centre, 113 87 Stockholm, Sweden, www.byggtjanst.se

Year: 2002.

ISBN: 91-7333-008-6

Doc. type: Other std.

Abstract: This short "guide" for expert control, is a complement to "Bygg ikapp handikapp" (Build to avoid handicap), 3. ed.

Language(s): Swedish.

NNH 7/94

Accessibility in the built environment : the Nordic approach.

Publisher: The Nordic Committee on Disability, Box 510, 162 15 Vallingby, Sweden, <http://www.nsh.se>, nsh@nsh.se

Year: 1994.

ISBN: 91-86954-24-5

Doc. type: Other std.

Abstract: This publication summarises the common Nordic basic principles of accessibility in the built environment. It intends to provide an instrument for the Nordic participants in the European co-operation, enabling them to ensure that the Nordic countries will be able to conduct a national policy which will maintain the accessibility already achieved and develop it further, and will also contribute to development of accessibility in other European countries.

Language(s): English.

Accessibility and Architecture – a Collection of Examples (Tilgængelighed og Arkitektur – eksempelsamling).

Publisher: Danish Centre for Accessibility, P.P. Ørums Gade 11, bygn 1, Denmark, www.dcft.dk, dcft@dcft.dk

Year: 2000.

ISBN: 87-89407-80-6

Author: Editor: Karin Bendixen.

Doc. type: Other publications

Abstract: Accessibility and Architecture – a Collection of Examples Publication prepared in co-operation with the Danish Centre for Architecture and the Danish Building Research Institute, with the funds from the Danish Ministry of Housing and Urban Affairs. The book is well illustrated and gives information about different disability groups and their needs.

Language(s): Danish.

A Handbook about Smart Home Technology (En håndbog om Smart Home teknologi).

Publisher: Danish Centre for Accessibility, P.P. Ørums Gade 11, bygn 1, Denmark, www.dcft.dk, dcft@dcft.dk

Year: 1999.

ISBN: 87-90716-08-6

Author: Editor: Karin Bendixen.

Doc. type: Other publications

Abstract: Danish evaluation project – Smart Home technology (This is a summary from a hand book about Smart Home Technology – user needs and specifications) Danish Centre for Accessibility has carried through a project in 1999, with the purpose of evaluating how residents and members of the staff in Platanbo, a commune for young people with physical disabilities, use the Smart House functions and the impact it has on their everyday lives.

In order to be able to point out the advantages and disadvantages in the Smart House functions and to get a varied picture of the technology, the same daily routines have been followed in another commune, Solbakken, without Smart House installation.

The project has been co-financed by the Research- and Development Centre for Technical Aids and Rehabilitation. The project has been organised with a project manager, a working project group, a steering committee and a reference group. In the steering committee has been both public and private representatives as well as representatives from the disability organisations, the group has followed the project and contributed with advice and guidance in the different stages of the project.

The task of the steering committee has been to follow the project and to make sure that the project focused on the main goal of the project. The reference group also consisted of representatives from public and private enterprises and manufacturers of Smart House technology. The primary task of the reference group has been to give input and discuss the different technical and user-oriented aspects and thereby make sure that the results of the project are applicable for the target group.

Platanbo has been chosen because it is the only commune in Denmark with Smart

House installation. Solbakken has been chosen because there are no Smart House installations and because the number of residents and their disabilities are very similar to those of Platanbo.

Data has been collected through a description of the building, Smart House installation and the functions. Specific situations in the everyday life have been observed, and through interview the residents and the staff of the two communes have told about experiences, wishes, ideas and need for technology. A total of 20 people have participated in the evaluation project. Data has been gathered through description of the building, Smart Home installation and functions. Concrete situations in the daily living has been observed. And through interviews the inhabitants and the staff in the two communities has told about experiences, wishes, ideas and need for technology.

Language(s): Danish.

Design Guidelines – for elderly and disabled persons' housing.

Publisher: Danish Centre for technical aids, Gregersensvej, 2630 Taastrup, Denmark, www.hmi.dk, hmi@hmi.dk

Year: 1997.

ISBN: 87-89407-64-4

Authors: Kirsten Juul-Andersen, Else Marie Jensen.

Doc. type: Other publications

Abstract: The guideline is a practical tool for occupational therapists, architects, planners and others who are in charge of building, planning and adaptation of houses for disabled and elderly persons. It contains guidelines for measures, good practices for housing adaptations etc. which are based on extensive experience and testing in Denmark.

Language(s): English.

European manual for an accessible built environment.

Publisher: CCPT, Rijswijk, The Netherlands

Year: 1990.

ISBN: 90-5265-021-7

Author: Maarten Wijk

Doc. type: Other publications

Abstract: October 1987 a European conference was held in Utrecht initiated by the European Committee. The subject of this conference was "the accessibility of public buildings for disabled people". The objective was to bring about new initiatives to improve the accessibility of the built environment in the European Community. One of the recommendations was to achieve a European standardization of the more important general constructional standards regarding accessibility. The conference emphasized this recommendation by advising the compilation of a "European Manual".

Language(s): English.

Railway Station Accessibility – Overcoming Architectural Barriers

Publisher: RFI – Italian Railways – archivio@disabilivisivi.it

Year: 2001

Doc. Type: Other publications

Abstract: The task of the present study is to provide technical/architectural guidelines for the planning of projects aimed at railway stations accessibility, in order to make them more safe and comfortable for all passengers, including those who have motor difficulties or mental or sensory disabilities.

Language(s): English

Tactile Pathways – Design Features

Publisher: Poste Italiane S.p.A. – Italian Post Company – archivio@disabilivisivi.it

Year: 2000

Author: Arch. Clemente–Empler

Abstract: This document provides the standard of tactile pathways to allow the visually impaired to move autonomously in post offices.

Language(s): English

Tactile Pathways for the Visually Impaired

Publisher: RFI – Italian Railways – archivio@disabilivisivi.it

Year: 1999

Doc. Type: Other publications

Abstract: This study focuses on the issue of access into fixed structures with a special regard to the elimination of architectural barriers, namely relating to the construction of tactile pathways for the visually impaired. It provides a standard of tactile codes, complete in the language and easy to use which allows the visually impaired people to move autonomously.

Language(s): English

Universal Accessibility: No-discrimination Design (Accesibilidad universal: diseño sin discriminación).

Publisher: IMSERSO, Avda. de la Ilustración c/v Ginzo de Limia, 58. 28020 Madrid, Spain

Year: 2001.

Author: José A. Juncá.

Doc. type: Other publications

Abstract: Universal Accessibility is considered in this book as a holistic approach to the built environment, with regard not only to the construction of this environment, but also to the social aspects of it. The author has divided the book in the following parts: – Basic principles – Accessibility with dignity – Principles of

universal accessibility – Accessibility and everyday life.
It includes a bibliography and web references.

Language(s): Spanish.

3.10 Outdoor environment

- ResAP
(2001) 1 *Council of Europe Resolution ResAP (2001) 1 on the introduction of the principles of universal design into the curricula of all occupations working on the built environment ("Tomar Resolution").*
Doc. type: E/I
Abstract: Recommendations on the education and training of architects, engineers, town planners etc. in universal design concepts.
- DIN 18024-
1:1998-01 *Barrier-free built environment – Part 1: Streets, squares, paths, public transport, recreation areas and playgrounds – Design principles (Barrierefreies Bauen – Teil 1: Straßen, Plätze, Wege, öffentliche Verkehrs- und Grünanlagen sowie Spielplätze; Planungsgrundlagen).*
Doc. type: Nat
Abstract: The document applies to the design, execution and equipment of public transport areas, access to public transport, recreation areas and playgrounds. It also applies to conversions, modernizations and changes of use.
Language(s): German.
- DIN 33942:
2002-08 *Barrier-free accessible playground equipment – Safety requirements and test methods (Barrierefreie Spielplatzgeräte – Sicherheitstechnische Anforderungen und Prüfverfahren).*
Doc. type: Nat
Abstract: The document is applicable to barrier-free accessible playground equipment in a public unsupervised area and in a supervised area. It applies analogously if existing playground equipment will be redesigned for use as barrier-free accessible equipment.
Language(s): German.
- UNE 41510:
2002 *Accessibility in the urbanism. (Accesibilidad en el urbanismo.).*
Doc. type: Nat
Abstract: It establishes the parameters to ensure the accessibility in every urban element.
Language(s): Spanish and English .
- UNE 41512:
2001 *Accessibility in beaches and in its environs. (Accesibilidad en las playas y en su entorno.).*
Doc. type: Nat
Abstract: This standard establishes the minimum conditions of accessibility in beaches and its environs.
Language(s): Spanish and English .

UNE 41513: *Accessible urban itineraries in case of urban works. (Itinerarios urbanos accesibles en casos de obras en la calle).*
2001

Doc. type: Nat

Abstract: This standard establishes the parameters to ensure the security in accessible itineraries used in urban sites.

Language(s): Spanish and English.

Housing areas accessible for all? Disabled persons and outdoor environment in the newly constructed areas in the inner parts of Stockholm (Bostadsområden tillgängliga för alla: funktionshindrades tillgänglighet till utemiljöerna i Stockholms innerstads nybyggda bostadsområden).

Publisher: Royal Institute of Technology, 100 44 Stockholm, Sweden,
www.infra.kth.se/

Year: 1999.

Authors: Pernilla Johnni, Catarina Thuresson.

Doc. type: Project reports

Abstract: Graduate Paper from the Department of Infrastructure, Royal Institute of Technology.

Language(s): Swedish.

Accessibility: principles and guidelines.

Publisher: Council of Europe Press, F-67075 Strasbourg, France,
<http://book.coe.int>, publishing@coe.int

Year: 1993.

ISBN: 92-871-2260-1

Author: Council of Europe.

Doc. type: Other publications

Abstract: This publication presents the fundamental principles of a radical and coherent policy on accessibility for people with disabilities, and proposes guidelines in order to solve their daily problems.

Language(s): English and French

Form & Funktion – Nordic design for All Magazine, no 2, 2002, Theme: Town planning (Form & Funktion – Nordisk Design for Alle Magasin, no 2, 2002, Tema: Byplanlægning).

Publisher: Nordiska Samarbejdsorganet för Handicappfrågor, NSH, P.O. Box 510,
SE-162 15 Vällingby, Sweden, www.nsh.se, form&funktion@dcft.dk

Year: 2002.

Author: Editor: Karin Bendixen.

Doc. type: Other publications

Abstract: Form&Funktion is the name of a new Nordic magazine (first issues 2002), being the first in the Nordic countries to put special focus on Design for All.

Form&Funktion will include examples and articles aimed to inspire and stimulate

work within the Nordic countries to create a functioning society that is accessible to all. Form&Funktion is sent to designers, architects, planners, enterprises, organisations, politicians and other persons in the Nordic countries with influence on the development of design and the shaping of our society. Form&Funktion is published twice a year. The magazine also exists on the web: www.dcf.dk Form&Funktion is published by the Nordic Co-operation on Disability (NSH), and the editorial staff is placed in Danish Centre for Accessibility.

Language(s): Danish and English.

The Garden of Opportunities: A Garden for all (*Möjligheternas trädgård: en trädgård för alla*)

Publisher: Hjälpmedelsinstitutet och Utbildningsradion, HI, Box 510, 162 15 Vällingby, Sweden, www.hi.se, kundtjanst@hi.se

Year: 2001.

ISBN: 91-26-99250-7

Author: Kerstin Sandberg.

Doc. type: Other publications

Abstract: Good examples and recommendations about how to make gardens and parks accessible and useable for all.

Language(s): Swedish.

Stockholm – a City for all: guidelines for creating an accessible outdoor environment (Stockholm – en stad för alla: riktlinjer för att skapa en tillgänglig och användbar utemiljö).

Publisher: Gatu- och Fastighetskontoret, Box 8311, 104 20 Stockholm. The document can be found at as a pdf-document at www.stockholm.se/files/23300-23399/file_23394.pdf

Year: 2001

Authors: Pernilla Johnni, Catarina Thuresson.

Doc. type: Other publications

Abstract: Guidelines of the city of Stockholm, with the aim of support projects of construction, the organisations of disabled persons and others.

Language(s): Swedish.

3.11 Traffic and transportation

DIN 32984: *Ground surface indicators in public traffic areas (Bodenindikatoren im öffentlichen Verkehrsraum).*
2000-05

Doc. type: Nat

Abstract: The document specifies requirements for the manufacture, planning and arrangement of ground surface indicators in public traffic areas that are used as an orientation aid for blind or visually handicapped persons.

Language(s): German.

DIN 32974: *Acoustic signals in public traffic areas – Requirements (Akustische Signale im öffentlichen Bereich – Anforderungen).*
2000-02

Doc. type: Nat

Abstract: It is intended that this standard specifies requirements for acoustic signals for blind and visually handicapped persons in all types of public transportation vehicles as well as in public traffic areas.

Language(s): German.

RAP
1999:0388 *Guidelines for bus stop standard and accessibility (Riktlinjer för busshållplatsers standard och tillgänglighet).*

Doc. type: Nat

Abstract: Guidelines for bus stop standard and accessibility, aimed to the network of roads of the Stockholm county.

Language(s): Swedish.

UNE 26437: *Road vehicles. Technical characteristics of the motorcar vehicles arrangements with a capacity smaller than 9 passengers for the individual transport as passenger of a wheelchair user without leave it. General requirements (Vehículos de carretera. Características técnicas del acondicionamiento de los vehículos automóviles de menos de nueve plazas para el transporte individual como pasajero de un usuario (PMR), con silla de ruedas sin abandonar ésta. Características generales).*
1992

Doc. type: Nat

Abstract: This publication describes the technical characteristics and general requirements of the motorcar vehicles arrangements with a capacity smaller than 9 passengers, for the individual transport as passenger of a wheelchair user, without leaving the wheelchair.

Language(s): Spanish.

UNE 26450: *Road vehicles. Fitting of motor vehicles to be used by a handicapped driver. Technical specifications (Vehículos de carretera. Acondicionamiento de los vehículos automóviles utilizados por un conductor discapacitado físicamente. Especificaciones técnicas).*
1995

Doc. type: Nat

Abstract: It states the technical specifications for the fitting of motor vehicles to be used by a handicapped driver.

Language(s): Spanish.

The Modern Journey – from Start to Finish: Report on the Competition, the Closing Conference and the Competition result (Den moderna resan – från start till mål: rapport om tävlingen, slutkonferensen och tävlingens resultat).

Publisher: Nordic Council on Disability Policy, Box 510, SE 162 15 Vallingby, Sweden, www.nsh.se, nsh@nsh.se

Year: 2003.

ISBN: 91-86954-64-4

Authors: Lisa Warsén, Christina Sandqvist.

Doc. type: Project reports

Abstract: The modern journey – Nordic design competition on accessibility on public transport was aimed at all design colleges and professional designers across the Nordic countries. The aim was partly to raise awareness and commitment of the importance of a public transport system that works for everyone, and partly to elicit proposed solutions for some of the many problems that arise within the entire travel process.

Language(s): Swedish and English .

Accessible Public Transport Interchange

Publisher: Ministry of Transport and Communications, Helsinki

Year: 2000.

ISBN: 951-723-314-0

Author: Irja Vesänen-Nikitin, Jouni Sivenius

Doc. type: Other publications

Abstract: The objective for designing the functions of a Public Transport Interchange is to achieve a high-class and equal travel environment that serves everyone, regardless of age and whether or not they are disabled, as individually as possible. The aim of this study is to identify barriers to access and to set out accessibility guidelines for Public Transport Interchange facilities. The essential part of the study is to compile check lists to support practical planning and implementation work and to ensure accessibility of the Public Transport Interchange.

The basic function of the Public Transport Interchange is to help passengers transfer from one mode of transport or vehicle to another efficiently, conveniently and safely. The facilities in the Public Transport Interchange that serve all users must also be adapted to be suitable for wheelchairs and prams. Routes are designed to be as short as possible and free of barriers and each destination must also have access without the need to use stairs.

The design process must take into account a broad variety of human abilities. The

design has to be suitable for everyone. Adequate lighting as well as appropriate furnishings and fittings are important for safety and convenience. Travellers need information on timetables and transport connections, for instance. Signs should be easy to recognise and simple to understand. Information must also be available for different senses. For example, colour contrasts, various surface materials, embossed figures and announcements will help visually impaired people.

Language(s): English.

Crisp & Clear – European Magazine on Design for All, No 1, 2000. Theme: Transport.

Publisher: European Institute for Design and Disability, EIDD, Ireland, www.design-for-all.org, kb@dcft.dk

Year: 2000.

Author: Editor: Karin Bendixen.

Doc. type: Other publications

Abstract: “Crisp & Clear” – European magazine on Design for All. A publication about various aspects of Design for All and accessibility. The aim of the magazine is to promote a society for all and to attract attention to the need for Design for All within the public and the private sector. The articles can be read on www.design-for-all.org

With this project, EIDD’s aim is to generate increased understanding among the target groups for the diversity of citizens and their needs across age and impairments and to arouse an interest in promoting the development and application of Design for All concepts.

‘Crisp & Clear’ deals with Design for All in the built environment, transport, product design, information and communications technology as well as services. So the magazine has a large target group: politicians, government officials, architects, town planners, designers and manufacturers. The magazine draw attention to examples of good practise from European countries, promote new approaches to design, and also improve the understanding and demonstrate the extent of problems related to disability and age.

Language(s): English with summaries in Spanish and Italian.

Five Years Assessment of the specific Programme: Transport 1997.

Publisher: Office for Official Publications of the European Communities 1997, Luxembourg

Year: 1997.

ISBN: 92-828-0623-5

Author: European Commission.

Doc. type: Other publications

Abstract: As given in the title.

Language(s): English.

Form & Funktion – Nordic design for All Magazine, no 1, 2002 (Form & Funktion – Nordisk Design for Alle Magasin, no 1, 2002).

Publisher: Nordiska Samarbejdsorganet för Handicappfrågor, NSH, P.O. Box 510, SE-162 15 Vällingby, Sweden, www.nsh.se, form&funktion@dcft.dk

Year: 2002.

Author: Editor: Karin Bendixen.

Doc. type: Other publications

Abstract: Form&Funktion is the name of a new Nordic magazine (first issue 2002), being the first in the Nordic countries to put special focus on Design for All. Form&Funktion will include examples and articles aimed to inspire and stimulate work within the Nordic countries to create a functioning society that is accessible to all. Form&Funktion is sent to designers, architects, planners, enterprises, organisations, politicians and other persons in the Nordic countries with influence on the development of design and the shaping of our society. Form&Funktion is published twice a year. The magazine also exists on the web: www.dcft.dk Form&Funktion is published by the Nordic Co-operation on Disability (NSH), and the editorial staff is placed in Danish Centre for Accessibility.

Language(s): Danish and English .

Improving Transport for People with Mobility Handicaps.

Publisher: OECD Publications Service, 2. rue André Pascal, 75775 Paris Cedex 16, France, www.oecd.org/cem/

Year: 1999.

ISBN: 92-821-1244-6

Author: European Conference of Ministers of Transport.

Doc. type: Other publications

Abstract: The publication sets out key principles and guidelines for making all transport modes and related infrastructure more accessible. In addition, it provides examples and illustrations of good practice from many different countries. It includes a detailed reference list.

Language(s): English.

Transport Research COST 335. Passengers Accessibility of Heavy Rail Systems. Final report of the action

Publisher: European Communities

Year: 1999.

ISBN: 92-828-8223-3

Author: European Commission.

Doc. type: Other publications

Abstract: The purpose of this report is to provide guidance on best practice in meeting the needs of rail travellers with reduced mobility. The material in the report is drawn both from actual operating experience and from research in the participating countries and has been brought together by people with

many years of experience in the subject. The primary audience for this report is the rail industries and the public authorities responsible for transport.

Language(s): English.

3.12 Recreation

DS-
Handbook
105:1994 *Outdoor areas for all – Planning and design – Guidelines for providing access for disabled persons (Udearerler for alle – anvisning for planlægning og indretning med henblik på handicappedes færden).*

Doc. type: Nat

Abstract: Problems and special needs for handicapped persons. Advice on specific features of the open space amenities such as signs, choice of colours and lighting, steps, ramps, toilets, and parking spaces. Planning of entrances, approaches to entrances, doorways, and access to lifts. Foot paths, kerbs, pedestrian crossings, and playgrounds. Recreational areas such as gardens, parks, and sports grounds. Advice is given on how to facilitate access of handicapped people to riding, fishing, yachting, bathing, and camping.

Language(s): Danish and English

DS-
Handbook
105.2:1999 *Recreational areas for all – Collection of examples (Rekreative arealer for alle – med vejledning om indretning for handicappede).*

Doc. type: Nat

Abstract: This publication is the result of several years of work with procuring information on recreational areas and facilities which has been provided with entrance facilities and usage possibilities for disabled persons. The research has also been combined with initiatives for influencing the layout of new or existing areas. The publication will illustrate that providing these facilities can be done in a large number of different ways. This collection of samples is not intended to be a guide on how to design the recreational areas apart from the specific suggestions in the relevant paragraph.

Language(s): Danish.

Crisp & Clear – European Magazine on Design for All, No 2, 2000. Theme: Culture & Tourism.

Publisher: European Institute for Design and Disability, EIDD, Ireland, www.design-for-all.org, kb@dcft.dk

Year: 2000.

Author: Editor: Karin Bendixen.

Doc. type: Other publications

Abstract: “Crisp & Clear” – European magazine on Design for All. A publication about various aspects of Design for All and accessibility. The aim of the magazine is to promote a society for all and to attract attention to the need for Design for All within the public and the private sector. The articles can be read on www.design-for-all.org

With this project, EIDD’s aim is to generate increased understanding among the target groups for the diversity of citizens and their needs across age and

impairments and to arouse an interest in promoting the development and application of Design for All concepts. 'Crisp & Clear' deals with Design for All in the built environment, transport, product design, information and communications technology as well as services. So the magazine has a large target group: politicians, government officials, architects, town planners, designers and manufacturers. The magazine draw attention to examples of good practise from European countries, promote new approaches to design, and also improve the understanding and demonstrate the extent of problems related to disability and age.

Language(s): English with summaries in Spanish and Italian.

Museums for all; in the Nordic Countries: Accessibility for persons with disabilities (Museer för alla – i Norden).

Publisher: Nordiska Ministerrådet, Store Standstraede 18;DK-1255 Köpenhamn, Denmark

Year: 2000.

ISBN: 92-893-0568-1

Author: Elisabet Svensson.

Doc. type: Other publications

Abstract: Facts and good examples about how to make museums accessible and useable for all, including the building, the information and the exhibition

Language(s): Swedish.

The Accessible Games Book.

Publisher: Jessica Kingsley Publishers

Year: 1996.

Author: Marl Katie.

Doc. type: Other publications

Abstract: The Accessible Game Book contains games specifically chosen or adapted for mixed groups including people with auditory or visual impairments, those in wheelchairs, and those with multiple disabilities.

Language(s): English.

3.13 Others

EN 62079 *Preparation of Instructions — Organisation, Content and Presentation.*

Doc. type: E/I

Abstract: This International Standard provides general principles and detailed requirements on the design and formulation of all types of instructions that will be necessary or helpful for products of all kinds ranging from small, simple ones, such as a tin of paint, to large and highly complex ones, such as a large industrial installation.

Accessibility in Detail. Handbook on accessibility of the built environment and the outdoor environment for blind and partially sighted people (Tilgængelighed i detaljen. Håndbog om blinde og svagsynedes behov for indretning i det indre og ydre miljø).

Publisher: Dansk Blindesamfund, Thoravej 35, Denmark, www.dkblind.dk, infor@dkblind.dk

Year: 1999.

ISBN: 87-980552-3-2

Author: Mary Anne Ingsholt.

Doc. type: Other publications

Abstract: This publication gives an overview of the accessibility problems facing blind and partially sighted people in every day life. It is structured in five chapters. The first chapter holds a definition of blindness and the problems faced by blind people. The second chapter is an overview of the basic principals of accessibility for the blind and partially sighted. The third chapter looks especially at the built environment while the fourth chapter is about the outdoor environment. The fifth chapter is about transportation.

Language(s): Danish

A coherent policy for the rehabilitation of people with disabilities.

Publisher: Council of Europe

Year: 1992

ISBN: 92-871-2147-8

Author: Council of Europe

Doc. type: Other publications

Abstract: As given in the title.

Language(s): English.

Adaptable and Adaptive User Interfaces for Disabled Users in AVANTI Project.

Publisher: Springer

Year: 1998.

Authors: Stephanidis C, Paramythis A, Sfyarakis M, Stergiou A, Maou N, Leventis A,

Paparoulis G, Karagiannidis C.

Doc. type: Other publications

Abstract: In S. Trigila, A. Mullery, M. Campolargo, H. Vanderstraeten & M. Mampaey (Eds.), *Intelligence in Services and Networks: Technology for Ubiquitous Telecommunications Services – Proceedings of the 5th International Conference on Intelligence in Services and Networks (IS&N '98)*, Antwerp, Belgium, 25–28 May (pp. 153–166).

Language(s): English.

Handbook on Marketing for Senior Citizens. (Handbuch Senioren-Marketing)

Publisher: Deutscher Fachverlag, Frankfurt am Main, Germany, <http://.dfv.de>, buchverlag@dfv.de

Year: 2000.

ISBN: 3–87150–621–4

Author: Meyer–Hentschel Management Consulting.

Doc. type: Other publications

Abstract: The praxis oriented handbook offer extensive information about the top target group the next decades, demographic evolution, consumer data, market relevant feature peculiarity of the generation 60plus.

The book is concentration of article and examples of famous business, e.g. ALLBANK Aktiengesellschaft, Quelle AG, Kaufhof Warenhaus AG, EDEN–WAREN GmbH, Coop Schweiz, Bosch und Siemens Hausgeräte GmbH

Language(s): German.

How can disabled persons in the European Union achieve equal rights as citizens ?

Publisher: The legal and economic expert working Group Helios II

Year: 1996.

Author: The legal and economic expert working group Helios II.

Doc. type: Other publications

Abstract: The legal and economic implications of a non–discrimination clause in the treaty on European Union

Language(s): English.

Measuring results (Att mäta effekter).

Publisher: The National Social Insurance Board, www.rfv.se

Year: 1996.

ISBN: 91–798–163–3

Author: Rolf Sandahl.

Doc. type: Other publications

Abstract: Methods to measure effects. Quantitative methods.

Language(s): Swedish.

New techniques to develop innovative products oriented towards the user (Nuevas

técnicas para el desarrollo de productos innovadores orientados al usuario).

Publisher: Instituto de Biomecánica de Valencia, Avda. Juan de la Cierva, 24, Paterna, Valencia. España, www.ibv.org, : ibv@ibv.upv.es

Year: 2001.

ISBN: 84-95448-03-3

Authors: Álvaro Page, Rosa Porcar, M^a José Such, José Solaz, Vicente Blasco.

Doc. type: Other publications

Abstract: This publication contains a summary of the different methodologies and tools for product development (such as QFD or Kansei Engineering) from the viewpoint, that it could be of practical use in the field of industrial design.

These methodology types encompass the whole process of product development, trying to systematise the performance of the different phases and incorporate criteria based on the users' ideas and market's needs.

Moreover, some of these techniques could help to establish the point of contact between the objective and functional attributes, object to an ergonomic study, with symbolic and subjective attributes, which have not been analysed from a scientific point of view before. The information contained in this monograph is divided into four parts.

CHAPTER 1 attempts to reflect an approximation to the design process, distinguishing between the different areas where the chosen techniques, tools, and information sources have been applied.

Based on this outline, in CHAPTER 2 and 3 a set of General Methods are described (chapter 2) and specific Techniques and Tools (chapter 3), which can be applied at different phases of the process.

Then, CHAPTER 4 is dedicated to Information Sources. It describes some types of information, previously processed, that can be useful in developing products oriented towards the user.

Finally CHAPTER 5 covers the referenced Bibliography.

This work is directed at designers, developmental engineers, interior designers marketing directives and other groups connected with conception and development processes and the launching and promotion of new products.

Language(s): Spanish.

Reports, recommendations, resolutions and other documents published in the field of rehabilitation and integration of people with disabilities

Publisher: Council of Europe

Year: 1997.

Author: Council of Europe.

Doc. type: Other publications

Abstract: rehabilitation and integration.

Language(s): English.

Recommendations for Accessible Government Authorities. (Riktlinjer för en

tillgänglig statsförvaltning)

Publisher: Office of the Disability Ombudsman, Box 49132, 100 29 Stockholm, Sweden, www.ho.se, registrar@ho.se

Year: 2003.

Author: National accessibility centre.

Doc. type: Other publications

Abstract: Recommendations for government authorities covering building, interior, communication and information, workplaces. The process how to achieve improved accessibility is also described.

Language(s): Swedish.

Marketing for Senior Citizens (Senioren Marketing)

Publisher: Wirtschaftsverlag Carl Urberreuter, Wien / Frankfurt a.M., Austria / Germany

Year: 1999.

ISBN: 3-7064-0521-0

Authors: Christine Krieb, Andreas Reidl

Doc. type: Other publications

Abstract: The Book give a description to reach the target group the future. 246 pages.

Language(s): German.

The Universal Design File: Designing for People of All Ages and Abilities.

Publisher: NC State University

Year: 1998.

Authors: Story Molly Follette, Mueller L. James, Mace L. Ronald.

Doc. type: Other publications

Abstract: This book was produced as part of a Research and Demonstration project titled "Studies to Further Development of Universal Design", funded by the United States Department of Education's National Institute on Disability and Rehabilitation Research from 1994 to 1997.

Language(s): English.

Universal accessibility & standardisation: New opportunities and prospects.

Publisher: IOS Press.

Year: 1997.

Authors: Stephanidis C., Akoumianakis D., Ziegler J.

Doc. type: Other publications

Abstract: In G. Anogiannakis, C. Bühler, & M. Soede (Eds.), Proceedings of the 4th European Conference for Advancement of Assistive Technology (AAATE '97), Porto Carras, Greece, 29 September – 2 October (pp. 39–43).

Language(s): English.

Universal Design: 17 ways of thinking and teaching.

Publisher: The Norwegian State Housing Bank, Box 51 30, Majorstuen, 0302 Oslo, Norway

Year: 2002

Author: Jon Christophersen, Tone Rønnevig (eds.)

Doc. type: Other publications

Abstract: The book presents articles written by some of the world's leading practitioners in the field. The intention is to give both an overview and some insight into the content of current Universal Design teaching across the globe. The content includes theoretical subjects, teaching methods, evaluation and auditing, ways of integrating Universal Design into the curriculum, student projects and competitions. Thus, the articles cover both some of the challenges facing Universal Design educators and ways and means of overcoming them. Some authors have chosen to present highly personal accounts. Others approach the subjects from a more academic viewpoint, whilst some have concentrated on the actual content of the courses.

Language(s): English.

Usability Testing and Research.

Publisher: Longman

Year: 2001.

ISBN: 0205315194

Author: Barnum M. Carol, Sam Dragga (eds.)

Doc. type: Other publications

Abstract: About the part usability testing plays in a user-centred design process—one which creates products that work for real users performing real tasks. It includes elements of disciplines including computer science, cognitive science, cognitive psychology, and human factors engineering, and is intended for content specialists, Web developers, graphic designers, technical communicators, and information architects who are already doing such testing as well as for those who are considering it This book is about the part that usability testing plays in the user-designed process.

Language(s): English.