Glossary

Accessibility

Easy access to the use of an object, service, environment etc.

Accessibility wheel

The accessibility wheel is a tool resulting from this study, which displays **accessibility** criteria according to type of disability (physical, sensory and cognitive).

Affordance

The definition of this big idea is provided on p.120. Affordance is about “all the action possibilities of an object” and, more specifically, the intuitive understanding of forms and their functions.

Attention

Attention relates to concentration, impulsiveness or hyperactivity.

Audition

The perception of sounds through hearing.

Brainstorming

Brainstorming is a group discussion technique to produce ideas, under the guidance of a group leader. Generally, participants express ideas or suggestions on a subject, which the group leader displays on post-it notes to clarify discussions and make progress as a group.

Chemoreception

Chemoreception is about olfaction and taste, or the process of detecting chemical stimuli that allows us to taste and smell.

Co-design workshops

These creative workshops take place during the ideation phase to come up with solutions through **collective intelligence**, by bringing together various profiles and experiences (people with disabilities, carers, occupational therapists, designers, anthropologists etc.).

These workshops are described in detail on p.49.

Cognition

Detailed definition of the cognitive process on p.120.

Collective intelligence

Collective intelligence describes the capacity of a community of people to bring together their intelligence and knowledge to make progress towards achieving a shared goal. Collective intelligence is not the same as simply working as a group. It is important that genuine quality is created in the interactions between members of the group so that a real synergy is generated. The **co-design workshops** in this guide are based on the principle of collective intelligence. This concept is set out on p. 49.

Communication

Transmission of information, making a connection with another person.

Delegation

Action of passing on a task to someone or something else.

Design

In this context, the industrial design of objects, services or environments.

Design fiction

This method is set out on p. 54. This design practice allows a subject to be addressed by changing the context. The subject is projected into an alternative context, such as the future, in a possible, probable or totally fictional way.

Desirability

Used here to describe all the psychological and mental characteristics that make a user attracted to an object.

Recommendation diagram

All the recommendations for each element are labelled on the drawing of the object. This device is used and explained on p. 44.

Dexterity

Dexterity is the skill of using part or all of the body to carry out movements. It can be about the precision or coordination of movement.

Dyspraxia

Dyspraxia involves difficulty in carrying out certain movements and voluntary actions, in the absence of brain injury. It is due to a malfunction in the brain signals that control movement. It can affect spatial awareness, manual dexterity and/or the coordination of movement. Dyspraxia is a learning disorder, along with dyslexia, dysphasia etc.

Enunciation

Expression through language, clear and precise formulation of a concept. Enunciation can be oral or written.

Decision entropy

Decision entropy is the quantity and complexity of possible alternatives when making a decision.

Ethnology

Ethnology is a branch of the human sciences. It is the study of the characteristics of different ethnic groups (groups of human beings sharing a language, culture, certain characteristics of civilisation etc.) in order to establish the general principles behind the structure and evolution of societies.

Evaluation

Estimation of the value of something.

Facilitator

One of the people who helps to ensure a **co-design workshop** runs smoothly. He or she supports and guides the participants through the various activities. This role is used and explained on p. 60.

Fine motor skills

Fine motor skills describe the precise movements requiring small muscles in the body, particularly those in the hands and fingers. Examples include performing coordinated, precise gestures, dexterity etc.

Fitts’s law

Fitts’s law sets out a ratio between the time it takes to reach a target, its distance and its size. The smaller the target, the closer it needs to be so that it can be reached quickly enough.

Easy-to-read

FALC stands for " Facile à Lire et à Comprendre » (Easy to Read and to Understand). Easy-to-read guidelines are rules to ensure cognitive and, to a lesser extent, visual accessibility when information is enunciated in writing or orally so that it can be understood, assimilated and memorised by everyone. This concept is explained on p. 128 and its source [20] is available in the appendix.

Flexibility

Flexibility describes how the body achieves and maintains various postures over time. It may be about balance or different physical positions (twisting, bending, crouching etc.).

Focus group

A focus group involves gathering together around six people to discuss a subject as a group, so that their opinions, attitudes and habits can be understood in depth. This method is set out on p. 90.

Good Design Playbook

Literally translated from the English, a Good Design Playbook. This Good Design Playbook can be defined as a guide to best design practices.

Gross motor skills

Gross or physical motor skills are mainly about balance, general coordination of arms and legs, laterality and body tone.

Hearing

Sense enabling the perception of sounds.

Hick's law

Hick's law sets out a ratio between the time it takes to make a decision and the number of potential options. The higher the number of potential options, the longer the decision will take to make.

Ideation

This word is used to describe the creative phase of the design process, which involves the formation of ideas and new solutions. This phase is set out on p. 49.

Inclusive

Something that includes. This is the opposite of "exclusive", a word used to describe something that is reserved for certain people in particular. The word "inclusive" is used here to describe the inclusion of the diversity of people in society (whatever their disability, age, culture, gender, lifestyle etc.) in the design and use of objects, services and environments.

Interaction

Reciprocal action in which one thing has an influence on another. It could be the action of a user and its physical effect on an object or the colour of an object and its effect on the user's emotions, for example.

Iteration

Repetition of a process or argument. This word is used to describe the prototyping and evaluation phases of the design process, which are repeated in a loop to improve prototypes until they are approved, for example.

Manipulation

Manipulation involves the fine motor skills relating to the hands and fingers.

Memorisation

The process of committing something to memory or remembering something.

Mind map

A mind map is a diagram used to organise and represent ideas (often in bubbles) by connecting them in a logical way around a central subject. This tool is described in detail on p. 45.

Mobility

Mobility is about movement. The word is used to describe movement across accessible distances and environments.

Modelling

Here, this word describes the design of a three-dimensional object using software.

Olfaction

Sense of smell.

Onboarding

The onboarding of a mobile application is the process by which users are supported and guided through the installation of the app on their phone for the first time by taking them through a sequence of specific screens.

Packaging

Désigne l'emballage d'un objet.

Panel

The people representing a sample of the population who are the subject of a study (whether it is qualitative, quantitative, ethnological etc.).

Proactive and retroactive interference

When two pieces of information come one after the other, in a sentence for example, one piece of information will have an effect on the other. Interference is proactive when the first piece of information influences the second. Interference is retroactive when the second piece of information influences the first.

Prototype

First actual model of an object or service, which is produced so that it can be further developed before it goes into production. This unfinished model closely resembles the potential final form of the object, service or environment. Prototypes are intended to be assessed by users so that they can be approved, rejected or improved. The prototyping phase is set out on p. 65.

Qualitative research

Qualitative research uses various methods (interviews, focus groups, direct or indirect observations, usage tests etc.) to collect non-numerical data with descriptive value. The analysis is based on both verbal declarations (words used, tone of voice etc.) and non-verbal observations (gestures, behaviour, attitudes). This concept is used and explained on p. 32 and p. 40.

Quantitative research

Quantitative research collects numerical data (through surveys, for example), generally in digital format. It targets a sample group of people using certain rules to ensure that it represents the society or group being studied. It is derived from tangible data such as statistics. This concept is used and explained on p. 36.

Radar chart

A radar chart is a graph in the shape of a star made up of several axes radiating out from the same central point. Each axis represents a quantified characteristic. The radar chart is also known as a Kiviat diagram, star chart or spider web chart. This device is used and explained on p. 45.

Recognition

Recognition concerns the easy and rapid comprehension and interpretation of information. It could, for example, describe the rapid comprehension of a pictogram.

Reach

Reach concerns the dimensions, areas and heights than can easily be reached. It is advisable to aim for a reach zone up to a maximum of shoulder level to include low positions (seated or small people) and to require minimum effort during use.

Reiterate

To repeat an **iteration**.

Resolution

Finding a solution to a difficulty or problem through a process of analysis and reflection. Resolution covers several cognitive processes such as the projection of movements, the mental coordination of different gestures, solving problems, reasoning, decision-making, etc.

RGAA

Référentiel Général d'Accessibilité pour les Administrations (General accessibility guidelines for administrative bodies). This French reference system is based on the **WCAG** guidelines.

Semantic data

Data drawing on the study of the sense and meaning of linguistic units and their combinations. This may involve words, turns of phrase, punctuation etc.

Sensitivity

Here, sensitivity refers to fine and precise tactile perception. It could refer to the perception of temperatures, pain or the discrimination of textures by touch.

Situation card

These cards are used in this study during **co-design workshops**, as on p.55. "Situation cards" present situations used for role play.

Standard

Complying with manufacturing standards for mass production.

Sticking point

A sticking point describes an impossible, difficult, painstaking or tedious interaction for the user when using an object, service or environment. This term can also be referred to as a "stumbling block".

Stroop effect

The Stroop effect is the cognitive interference produced by irrelevant information during the execution of a cognitive task. For example, it could be a confirmation button represented by a red cross, which is generally associated with the opposite action of cancellation.

Universal

Something that applies to everyone, every person in existence. The word is used with caution, with the awareness of not being able to fulfil everyone's needs at the same time. The word "universal" is usually used to refer to the majority.

Usability

Usability refers to the suitability of an object, service or environment for easy use by someone for the purpose for which it was designed. The usability of an object is defined by the ISO 9241-11 standard. According to Jakob Nielsen, an expert in web usability, digital usability relies on five criteria: efficiency (of the user to achieve the objective), the satisfaction of the user with the interface, learnability (how easy the site is to learn), memorability (how easy it is to appropriate) and reliability (low error rate).

Usage

In this context, this word describes a global action resulting from the use of and interactions with an object, service or environment. It could refer to the action of making a phone call or cooking, or a morning personal care routine. The word "usage" also goes further than the actual use of something to take on a more anthropological meaning, with the analysis of usages (and customs).

Usage scenario

A usage scenario is a descriptive device that represents the concept in its usage situation through its narration. It's a story that describes how the imagined object or concept will be used. This tool is described in detail on p. 69.

User pathway

A user pathway identifies the steps the user takes throughout their experience with the designed object, service or environment. This concept is set out on p. 53.

Verbatims

Verbatims are the words used by a person when interviewed, transcribed exactly as they were spoken.

Visibility

That which can be seen.

WCAG

Web Content Accessibility Guidelines. These international recommendations cover the rules for the accessibility of web content.

Workaround strategy

A workaround strategy involves coming up with clever ideas to avoid having to deal with any stumbling blocks (impossible, frustrating or unpleasant situations).

Sources

[1] United States Census Bureau, Limbs for Life Foundation, Amputee Coalition, MedicineHealth.com, CDC.gov, Disability statistics centre at the UCSF, 2016. A nod to Microsoft Inclusive Design Toolkit, Solve for one, extend to many, 2016.

[2] Deployment of the column on ageing following the thinking of the Microsoft Inclusive Design Toolkit, Solve for one, extend to many, 2016.

[3] French government figures: "Guide de l'accueil des personnes en situation de handicap" issued by the French ministry of social affairs, health and women's rights.

[4] Figure from the Factsheet on Persons with Disabilities, UN / WHO.

[5] Figure provided by the CAF (French family allowance fund), http://www.caf.fr/allocataires/vies-de-famille/vivre-avec-un-handicap/vos-droits/80-des-handicaps-sont-invisibles-le-saviez-vous/ and Handirect, https://www.handirect.fr/accessibilite-handicap-loi-2015/ . The concept of invisible disability is not yet universally shared.

[6] Figure from INSEE (French National Institute of Statistics and Economic Studies), Population by age in 2018.

[7] Diagram taken from graphs published in Maintaining functional capacity over the life course, WHO 2002, Kalache and Kickbusch, 1997 and from A life course approach to active ageing plus a fourth age, D Eldemire-Shearer; 2013.

[8] Diagram from the questionnaire from this study given to 100 people with disabilities. The questionnaire was also given to 100 people without disabilities to compare the results and reveal any universal features. In the second questionnaire for people with no disabilities, the two most tedious tasks were preparation followed by cleaning up. These results are not quantitatively representative of society.

[9] Photograph ©Jean Baptiste Laissard.

[10] and **[13]** The wheel of accessibility is based on data collected during this study as well as on other works:

- "Beyond compliance: The role of human factors in medical device development" by Daniel Jenkins and Paul Draper. Published in Medical Design Technology, January/February 2016.
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[11] These results are taken from a questionnaire for this study involving 150 people with and without disabilities. 56.4% of the participants said they do not have any disability affecting their daily lives and 43.6% said that they do have difficulties (with mobility, manipulation, cognition, vision, hearing etc.). These results are not quantitatively representative of society.

[12] ©Jean Baptiste Laissard

[13] Source provided in [10]

[14] From the definition adopted by the fourth Congress of the International Ergonomics Association (1969) and from the definition of ergonomics endorsed by the Société d'Ergonomie de Langue Française.

[15] From:

- "Hand movements: a window into haptic object recognition," by SJ Lederman and RL Klatzky, 1987, Cognitive Psychology, 19, p.346.
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[20] A version of the Easy-to-Read guidelines is available here: https://easy-to-read.eu/wp-content/uploads/2014/12/en_Information_for_all.pdf

[21] From:

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Inspiring open-source concepts and guides:

Digital or visual interfaces

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