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UX GUIDE

Getting to grips with user experience terminology

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LAB University of Applied Sciences

Contents

INTRODUCTION

Why read this guide?

Each field has its own terminology, tools and working methods that, at first glance, may appear confusing. Experts often make use of professional terms that can easily be confused with one another due to, for example, the frequent use of highly specialised abbreviations. Sometimes this can lead to moments of ambiguity or even awkwardness when a customer, partner or new team member does not understand what they are being told.

We compiled this guide to serve as a tool and glossary for those who are interested in user experience development and wish to understand the meaning behind such abbreviations as UX (user experience), CX (customer experience) and UI (user interface), as well as the tools and working methods that are typically associated with them. By reading this guide, you will gain a better understanding of the importance of UX development and be better equipped to search for more UX information and work together with other UX designers. You will also be able to network more efficiently with other UX experts when you can recognise their areas of expertise.

This guide contains a concise glossary of the most common terms used in UX research and development (31 terms in total). A list of sources is available in connection with each term, to allow you to read more about the topic whenever you wish.

The Finnish version of this publication was awarded as LAB's best publication in 2022

– The LAB UX Center & MUX teams

We have included a selection of questions alongside each term to help you reflect on their themes from your own perspective – how the topics we cover affect your everyday life and development work as well as your organisation's business.

We hope that these questions will inspire you to consider each topic and how it can improve your organisation's user experience!

LAB UX CENTER

Usability laboratory

The UX Guide was created as part of the LAB UX Center Project, whose goal is to establish a mobile usability laboratory in South Karelia for testing the user and customer experiences of different products and services. The laboratory allows companies and organisations to test the functionality and usability of their customer services and digital applications, such as online shops, mobile applications, or physical devices, together with seasoned UX experts. The LAB's mobile testing equipment can also be used to assess the usability and customer-friendliness of different physical items and locations.

The LAB UX Center provides an extensive range of expertise and up-to-date technology for exploring and developing usability. Its usability and user experience tests are conducted by experts from LAB University of Applied Sciences, service design professionals, and student groups.
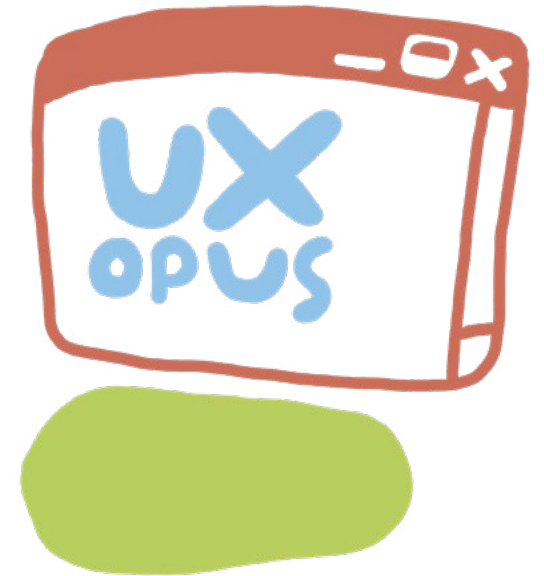
It's not worth
designing bad products
– there's no demand for them.

– Petteri Markkanen
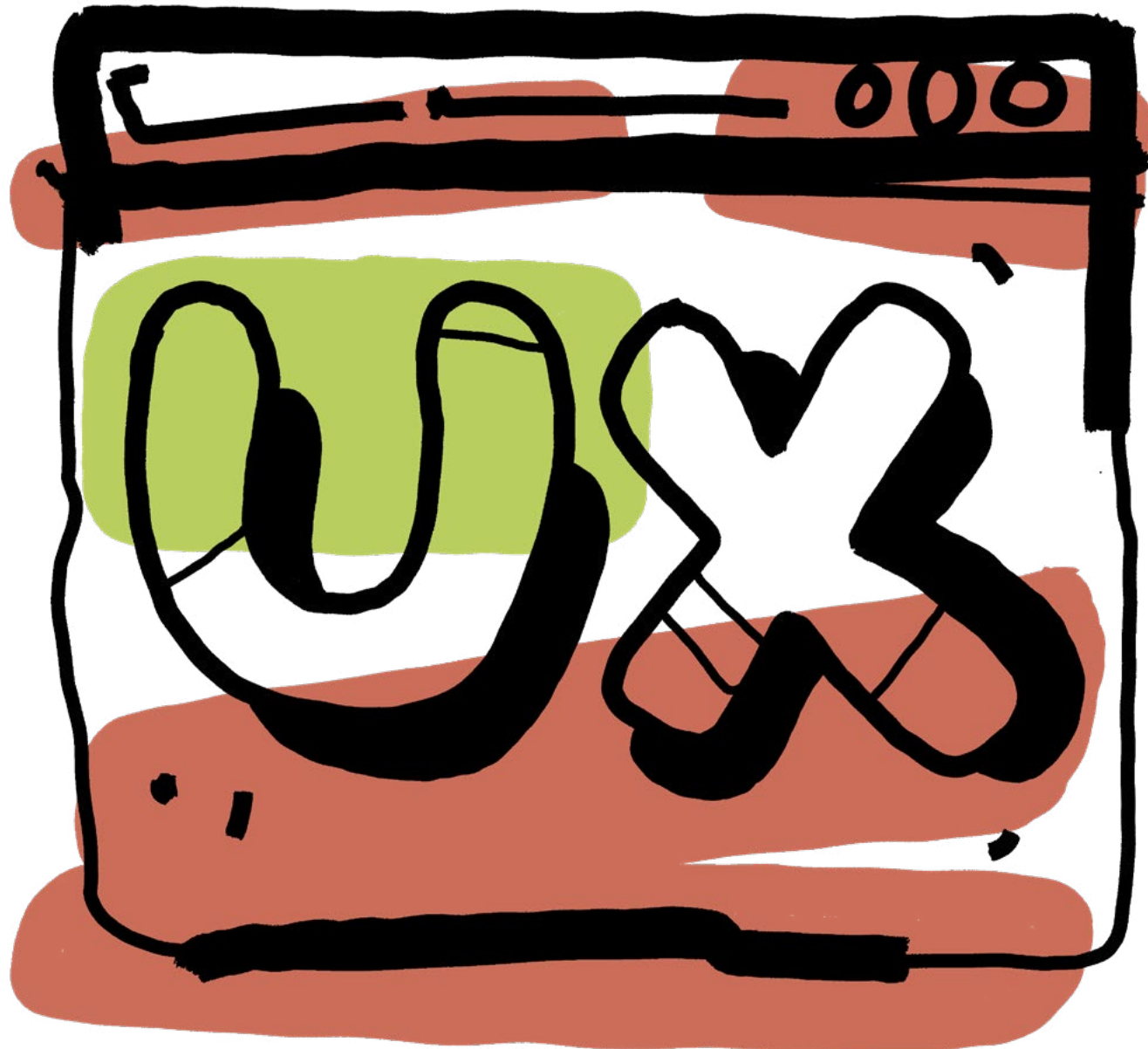
USER EXPERIENCE (UX)

The term "UX" refers to the holistic user experience resulting from the interaction between users and products, services, or facilities (Norman 2016a). UX encompasses more than just usability: it focuses on the sense of interaction between users and the services and products offered by service providers (Gibbons 2021). In the digital world, UX often refers to the experience that is created for users of different websites, online stores, and apps.

UX builds on the rational thoughts and emotions of the user (Babich 2020a). Users often assess their experiences through the following criteria:

- Value: Does this product/service generate value for me?
- Activity: Does this product/service work for me?
- Usability: Is the product/service easy to use?
- Overall impression: Is the product/service pleasant to use?

A smooth and pleasant UX improves the overall customer experience, brings added value to users, and makes the company that created it stand out from its competitors (Niemelä 2022). In addition to products and services, UX applies to other areas, such as advertisements, the roles and activities of the people working at a company, and the journey home after a purchase (LAB UX Center 2021).

What do you find meaningful when using a product or service?

What excites you or what makes you angry?

What konowledge could you bring from your own user experiences to the development work?

USER EXPERIENCE DESIGN (UX DESIGN)

User experience design combines research, strategic development, problem solving, service design and visual design (LAB UX Center 2021). The customer journey from the need to use the service is defined in detail so that it meets the genuine need and activities as well as possible. The goals set by the company will also be taken into account.

The aim of UX design is to genuinely understand the user and solve the user's problems. The UX designer examines the product and related services from the user's perspective and reflects on the kinds of thoughts and emotions that different solutions evoke in the user (UX Academy Finland 2021.)

The UX designer maps out why the product is used, what features it should have and how the features are used. For example, in an online store, it is essential that the customer journey – from entering the store and finding a suitable product – is simple and smooth all the way to the payment transaction and a possible new purchase. The UX designer is interested in the entire product or service life cycle from the procurement and integration process to the post-use period. (Interaction Design Foundation 2022a.)

**Comprehensive user experience design is built on:**

- user surveys
- user interface (UI) design
- interaction design
- usability optimisations
- visual design
- a well-functioning content strategy
- information architecture

How do your customers currently rate their experience with your products and services?

How do they rate the different parts of their experience?

How could you further improve their experience?
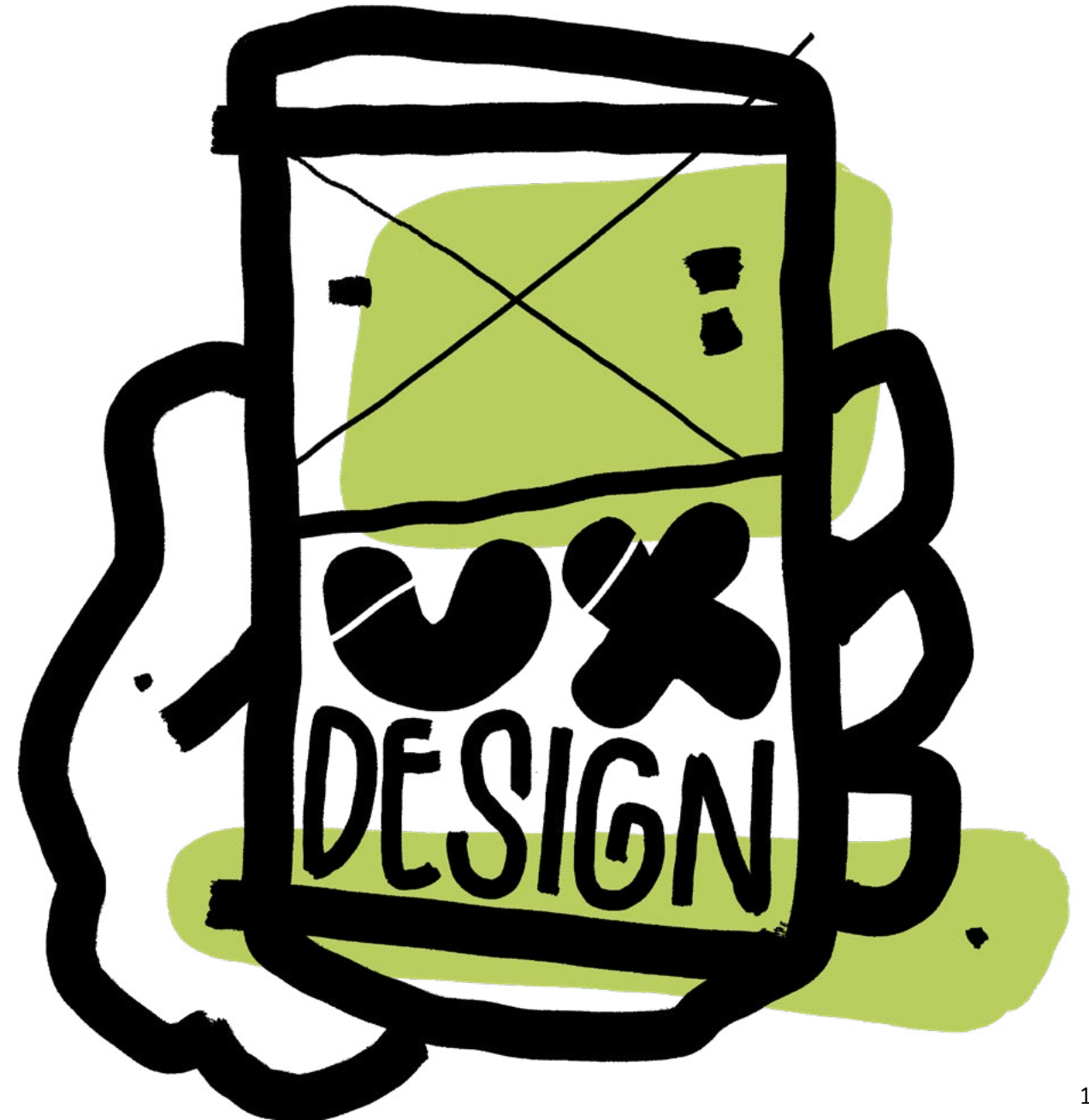
USABILITY

Usability refers to the quality of the user's experience when they interact with a product or system. Usability focuses on efficiency and overall user satisfaction, i.e. how well a system, service, product, or environment serves a desired purpose (Smith 2017). As an example, think about how a website's usability can help ensure that users want to leave their contact information.

Good usability ensures that using a product or service is always pleasant and effective. When done well, it allows users to quickly learn the ins-and-outs of a product and find the features they need. A usable product or service is pleasant to use and allows users to effortlessly achieve their goals and resolve any issues. Usability also makes it easier for users to remember how the product or service works when they return to it later (Kervinen 2022).

Correspondingly, poor usability can lead to a drop in users and income. When a user doesn't understand what they are doing, they may end up burdening your customer service. In the workplace, poor usability can weaken work efficiency and morale and even lead to hazardous situations (Niemelä 2022).

The 5 quality components of usability (Nielsen 2012):

- **Learnability:** How easy is it for users to accomplish basic tasks the first time they encounter the design?

- **Efficiency:** Once users have learned the design, how quickly can they perform tasks?

- **Memorability:** When users return to the design after a period of not using it, how easily can they reestablish proficiency?

- **Errors:** How many errors do users make, how severe are these errors, and how easily can they recover from the errors?

- **Satisfaction:** How pleasant is it to use the design?

HEURISTICS

Heuristics is a method for problem-solving that is based on cognitive psychology. Heuristic evaluations are often used to assess usability, as it is quick and affordable and can be applied at several stages of the development process (Nielsen 1994a). Heuristics encompass different areas, such as rules of thumb, academic guesses, intuitive decisions, good practices, and what is often referred to as "common sense" (Markkanen 2022).

A heuristic evaluation focuses on the following questions:

- How well does the system inform the user of what will happen and when?
- Does the system use language and concepts in a logical order that the user can recognise?
- What kind of freedom and control does the user have?
- How well does the system prevent the user from making mistakes?
- Is the system minimalist and aesthetically pleasing?
- Does the system comply with the same principles and standards as other systems?
- Does the system minimise the user's cognitive load?
- Is the system flexible and efficient?
- Does the system help identify, define, and correct errors?
- Has the user been provided with instructions and are they easily accessible? (Nielsen 1994b.)

How do you evaluate the usability of a service or product?

Has your company carried out a heuristic assessment on a product or service?
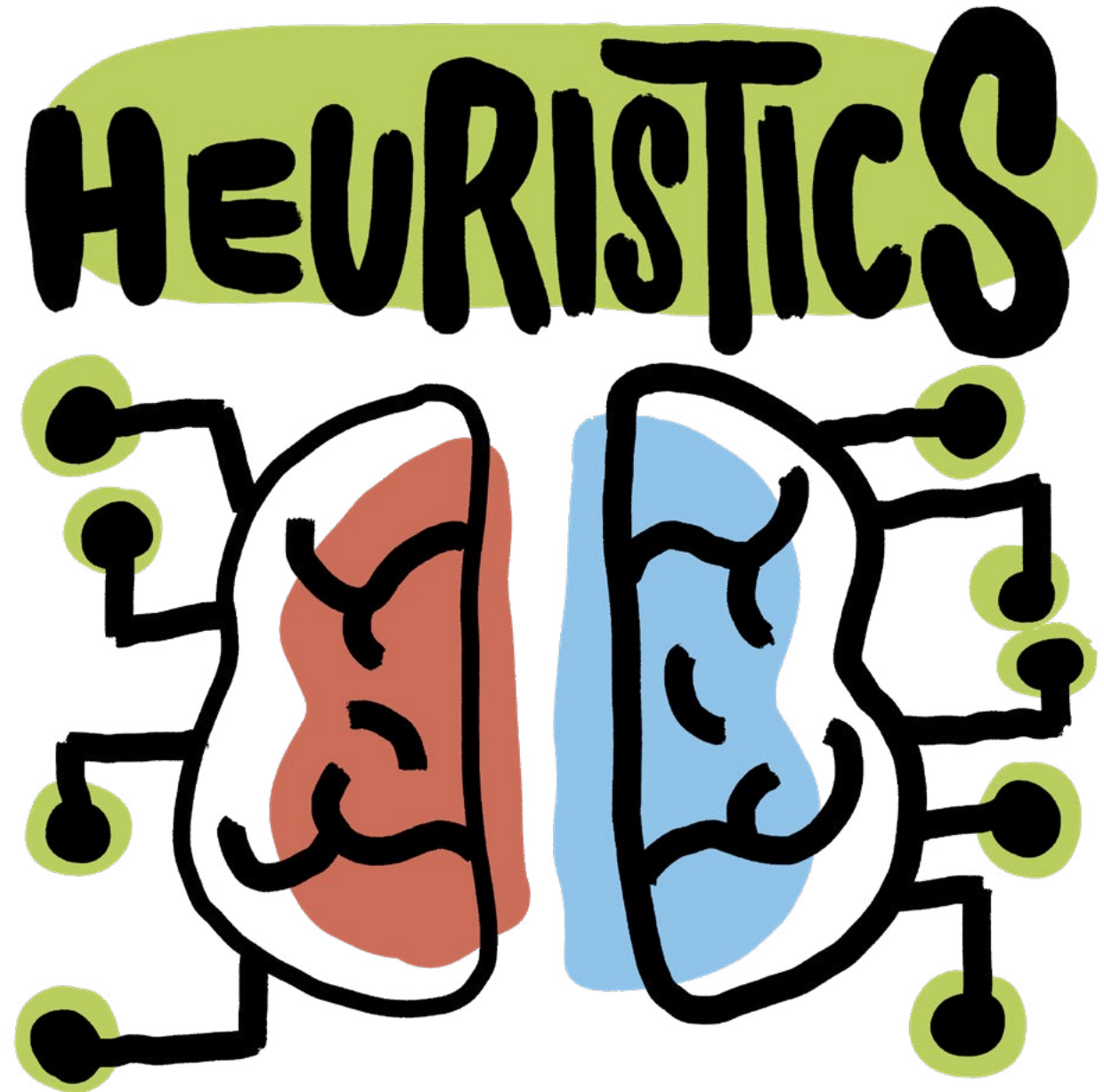
ACCESSIBILITY

Digital accessibility refers to accessibility in intangible services and environments, such as communications, websites, and digital services (Finnish Association of People with Physical Disabilities 2022). The design of an accessible service, application, or material (and its technical implementation) must take many different factors into account, such as different needs as well as any temporary or permanent injuries or impairments (Regional State Administrative Agency 2022). Above all, an accessible service is customer-oriented, equal, and humane.

The statutory requirements concerning the accessibility of online contents are laid down in the Act on the Provision of Digital Services (306/2019), which applies to the public sector in particular. Digital services should be accessible, easy to use, understandable and available to all types of users (Niemelä 2022).

When designing and implementing accessible websites, it is important to ensure that the website's structure is clear and that the website itself is technically reliable. Any information added to the website must be easy to find and understand without a great deal of effort. It is important to include alt texts, i.e. descriptive information, to the images used on the site, as these help users who rely on reading applications, for example. Use clear and understandable language and remember to pay attention to your website's colours and contrasts (Celia 2022).

How have different users and their needs been taken into account in your premises, on your website, in the materials, applications, products and services you produce?

Is your service equal for all users regardless of the level of functional capacity?

What could accessibility mean for you at best?

Investing in UX pays dividends.

– Jose Piironen

USER-CENTERED DESIGN (UCD)

User-centered design is a development process where the designer places the user at the centre of the design process of a product or service (Interaction Design Foundation 2022b). The goal is to become thoroughly familiar with users and their needs at each stage of the process. Each design decision is made on the basis of whether it provides value and solutions for the user. The design process makes use of various research methods and tools, such as surveys, interviews, observations, and brainstorming (Koivunen et al. 2014).

USER-DRIVEN DESIGN (UDD)

User-driven design is sometimes used as a synonym for user-centered design, even though it has a slightly different meaning. In user-centered design, users actively participate in the development of products and services (Koivunen et al. 2014). Users give ideas, test solutions, and provide feedback, but they do not design or produce the final version of the solution itself (Kälviäinen 2018).

What kind of people use your products and services?

What types of challenges do your users face and what prevents them from achieving their goals?

How could you collect more information about your users and their needs?

How could you involve your users in the development of your products and services?

EMOTIONAL DESIGN

Emotional design is a design method that pays particular attention to the emotions aroused by the design of a product or service. The aim is to create a design that evokes emotions in its users, leading to a positive user experience. Positive experiences generate curiosity and increase motivation, while negative experiences can frustrate, cause interruptions and result in repeated error. According to renowned usability researcher Don Norman (2016b), the user's emotional system consists of three different, interrelated levels, each of which affects their experiences in a certain way:

- Visceral level – fast and automatic responses to sensory observations and surprising situations.
- Behavioural level – daily user experience assessments, based on cognitive processes. For example, how quickly and accurately a goal is achieved and how many errors are encountered.
- Reflective level – contemplative assessments in which the user consciously reflects on the use of a product or service. For example, how successful they were in using it and what its benefits were.

What types of emotions would you like your product or service to evoke in your users?

How could you support your users' positive emotions at each of the three aforementioned levels?

CUSTOMER EXPERIENCE (CX)

The customer experience arises from the interaction between the customer and the service provider. CX is linked to the customer's observations, emotions, and impressions of the company's products, services, interactions, processes, communications, and brand throughout the customer relationship (Berry et al. 2002).

Creating an excellent customer experience requires collaboration between different groups. A company's product design, sales, marketing, customer service, and resellers must work closely together to ensure that the customer's journey and touchpoints provide a consistent and positive experience. Each encounter can strengthen or weaken the customer's experience and their impressions of a company. CX ultimately determines how strongly customers are committed to a company or organisation (Richardson 2010).

CX is often divided into three levels:

- Action – the service meets the customer's needs and is easy to use, understandable, versatile, and accessible.
- Emotion – the customer's experience is pleasant, effortless, multisensory, and interesting.
- Meaning – impressions, meanings and stories that reflect the customer's identity and lifestyle. (Tuulaniemi 2011, 109.)

Does your organisation measure CX? What does it do with the data it collects?

Is the development of CX consistent and who is responsible for it?

Can you identify your different customer groups and the elements that make up their CX?

When you make a user's life a little easier, you also make a new friend.

– Lasse Torkkeli

SERVICE DESIGN

UX design often makes use of service design methods to identify users, use cases, and functionalities (Hurja 2021). Service design refers to an approach where services are planned and refined using methods that were developed for the design process. The aim is to design a user-driven service experience that meets the needs of users as well as the business objectives of the service provider. The essential part is understanding the needs and motives of end-users in relation to the service being developed (Stickdorn & Schneider 2011, pp. 36–37).

Service design provides the most benefits when it is combined with the prerequisites of business life and applied systematically in the development of services. A key part of this approach is subjecting the created solutions to an agile testing process that also involves customers and employees (Kumpulainen & Pakarinen 2018).

In development work, service design functions as a comprehensive approach, process, and tool. Service designers utilise several different methods for user observation and participation as well as for developing and testing different solutions. These include probes, interviews, workshops, service paths, and empathy maps.

What types of physical or digital environments do you use to meet your customers?

What are the main moments (touchpoints) of your services?

What do your services include, and how do they appear from the perspective of your customers?

USER PERSONA

A user persona is a description of a typical user whose objectives and characteristics represent the needs of a larger user group. The description of a user persona usually presents the persona's background information, goals, skills, attitudes, and behavioural patterns (Faller 2019). Personas are created on the basis of collected background information, for example through interviews, observations, and stakeholder maps (Stickdorn & Schneider 2011, 178). A user persona helps designers put themselves in the user's shoes and design a product or service that it is suitable for the desired target group.

EMPATHY MAP

An empathy map is a template used to examine products or services from the customer's perspective. The empathy map is usually divided into four sections, each of which records the user's actions, words, thoughts and feelings. In the middle of the map is the user persona for the service being developed. The empathy map helps designers better understand user behaviour, attitudes, needs, thoughts and fears. (Gray 2017.) It is important to collect the information to be recorded in the empathy map, for example through interview and observation, not based on mere assumptions.

What are your four most typical user personas?

What kinds of skills, goals and behaviours do they have?

How could you collect users' views more effectively to support the development of services?

SCENARIO

A scenario is a script for a series of actions or events. In practice, scenarios are short stories or descriptions of the user and their activities. It describes how a user uses a product or service to fulfil a specific objective or task.

Scenarios help place a product or service in the right context. UX designers use scenarios when they design new solutions and user interfaces as well as in usability tests. Scenarios typically focus on one task at a time and contain five elements: an actor, motivator, intention or intent, action, and resolution (Salazar 2021). Scenarios help designers understand the motivators, needs, and obstacles that users have.

- A good scenario is often concise, and it can be used to answer the following key questions:
- Who is the user?
- Why are they visiting the site?
- What are their goals?
- How can they achieve their goals while they are on the site?

What activities and customer paths should you create scenarios for?

How could you visualise these scenarios?

Your competitor is always trying to outdo you.

– Jaani Väisänen

AGILE DEVELOPMENT

Agile development is an approach/production method where the aim is to rapidly develop a functional solution, product, or service via short, iterative bursts, or sprints. The goal is not to create a complete solution in one go, but to reach a stage that is typically referred to as the Minimum Viable Product (MVP), which can be tested with end-users as soon as possible. Their feedback guides the product's development and ensures that it progresses in the right direction. Agile development is particularly suited to complex and changing projects (Ekholm & Lehtonen, 2021).

ITERATIVE DEVELOPMENT

Iterative development refers to a working method where a plan is gradually improved through user testing. An idea is first refined into a wireframe or prototype, after which it is tested together with users. The results of the usability tests and feedback are used to identify issues that can be addressed in the next development cycle. The product or service is then given to users for testing again, after which it is returned to the designer's desk for further improvement (UX Academy Finland 2021).

How agile is your organisation?

What kind of obstacles or challenges have you faced?

Are your development projects iterative?

Iteration increases the reliability of each proposed solution:

- Every iteration always results in a more complete solution.
- The iterative process is repeated until a product is deemed complete.
- Repeatedly testing the previous steps of a process reduces potential risks, errors, and shortcomings (Lehtonen et al. 2014).
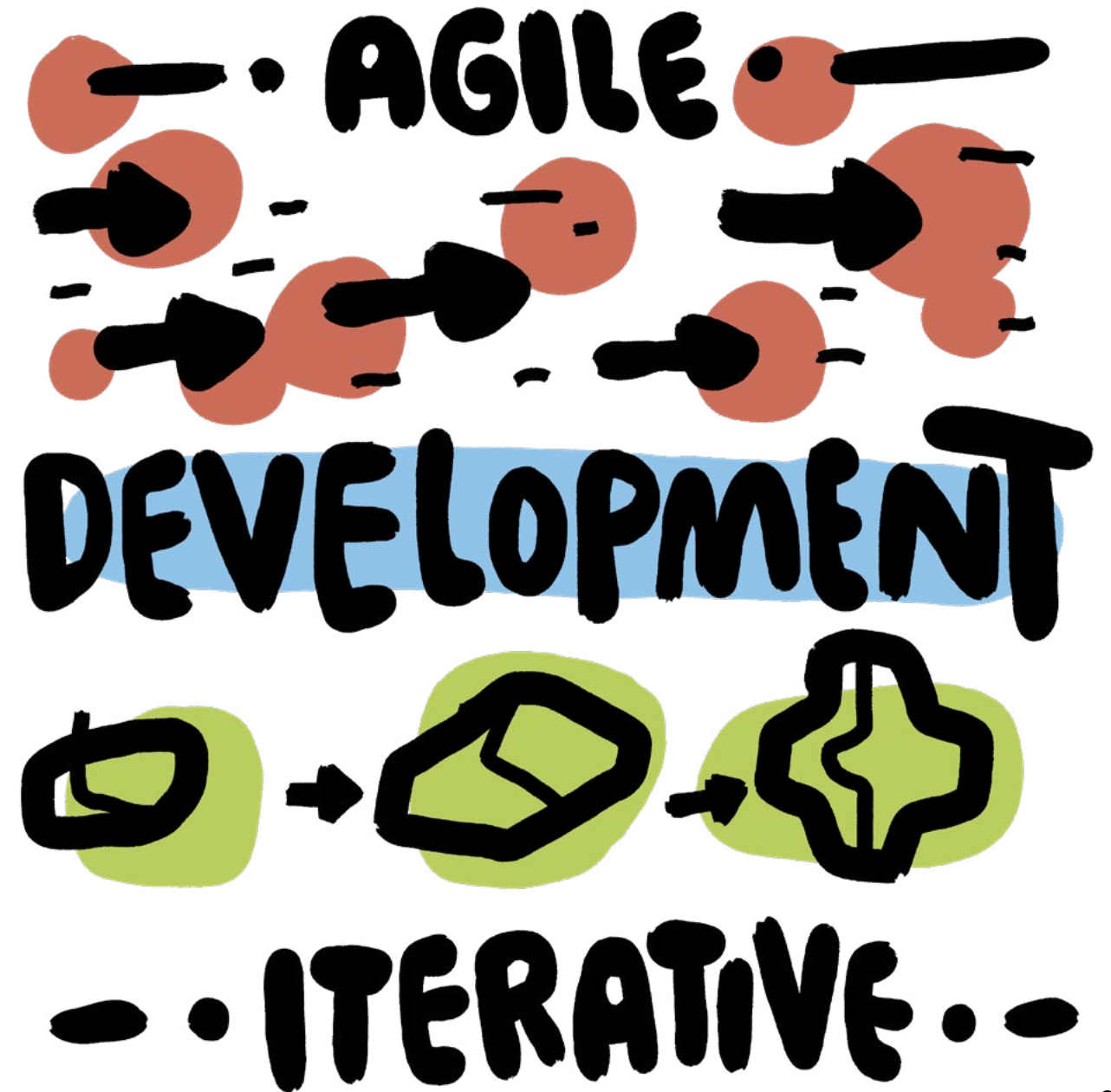
INTERACTION DESIGN (IXD)

Interaction design focuses on improving the ways in which users interact with a product or service. The aim is to create a dialogue between the user and the product, system, or service, as this will allow them to achieve their goals in the best possible way. This dialogue is both physical and emotional in nature and manifests itself as the interaction between form, activity, and technology (Kolko 2011).

The interaction between the user and the product or service is often developed through the following levels (Interaction Design Foundation 2022c):

- words – button names, instructions, and text content
- visual elements – images, typography, and icons
- physical objects used to access the user interface – e.g. a computer's keyboard and mouse, or a phone's touchscreen
- changing content – videos, animations, and sounds
- interaction – how the user acts or how a product reacts to and provides feedback on the user's actions.

How do your products or services interact with your users?

Where does this interaction take place?

What levels of interaction could you improve the most?

INFORMATION ARCHITECTURE (IA)

Information architecture refers to the ways in which information is organised and classified on a digital platform. Its goal is to make it easier to find and manage information – how information is grouped, how a system can be navigated, and what kind of terminology is used (Barker 2005).

For example, IA can be used to organise the information on a website in a way that its users are always aware of where they are and where they can find what they need. When information is organised logically, users can easily navigate between different pages and views. Metadata, various hierarchies, site maps, and menus are particularly useful organisational tools.

Information architects are interested in how the mind works and how people interpret what they see. Their focus is on finding out the assumptions and impressions that different users have and how long a person can focus on one page in general (Babich 2020b).

How do your customers look for information on e.g. your website? What kind of information are they interested in?

Is the available information arranged logically?

What do your customers focus on the most?

DATA ANALYTICS

Data analytics is used to create useful information about masses of data (Academic Work Academy 2022). Its aim is to combine, modify, and analyse data in a way that benefits those who need to make decisions. The process can be used to, for example, discover anomalies in human behaviour, identify hidden trends, and predict future behaviour (Stedman 2022).

The resulting data is often presented in visual form and used to create different models, probabilities, and predictions. Data analytics solutions typically utilise the modelling methods used in data mining, in which case the analysed data masses must be sufficiently large, preferably containing thousands or even tens of thousands of observations.

Data analytics helps people make decisions that concern the design and optimisation of the user experience. However, the analysed data must be relevant to the user experience, and the results and conclusions obtained from it should be presented in an understandable and actionable form.

What kind of data do you currently collect on your users, products, or services?

How do you process this data and who is responsible for it?

How could the data be visualised to support your decision-making?

The best interface is
the one you don't notice.

– Harri Heikkilä

USER INTERFACE (UI)

A user interface, or UI, is the interface between the (digital) product and the person using it. The UI is typically the part of a software application that the user sees for example on their computer, tablet, mobile phone or television screen. In more practical terms, an application's UI determines the locations and functionalities of its different buttons, forms, and texts. The UI relies on visual and interaction design (Adobe 2022).

UI DESIGN

The aim of UI design is to create a UI that makes it easy, efficient, and pleasant to interact with a product (Adobe 2022). The development of a UI's functionalities must always focus on maximising the simplicity and usability of the service (Lamia 2017). When planning a UI, it is important to know your users, so that you can design it to meet their needs and abilities. It is equally important to remain consistent so that your users can anticipate your UI's operating principles and interpret its actions. A UI's visual design should be simple and informative so that it can guide its users while emphasising its most important details and functionalities (Graafinen 2015).

What kinds of UIs do you currently have?

Are the UIs of your products and services consistent and recognisable?

Who is responsible for maintaining and updating your UIs?

RESPONSIVE DESIGN

People today use various devices to access their favourite applications and websites, which is why it is vitally important to ensure that your UI's elements and contents can adapt to different screen sizes. When you focus on responsive design, you can be sure that your UI will always remain usable on any phone, tablet, or computer (UX Academy Finland 2021). Responsive design also considers how people use their devices. For example, you can hide secondary elements from mobile users to free up space for other elements, such as navigation buttons. Responsive design ensures a consistent and tailored experience for every device (Kirkwood 2018). Responsive websites adapt to different displays with the help of various elements, such as flexible layouts, grids, and scalable images.

Statistics show that, in 2021, 90% of internet used a smartphone to browse the web. The number of internet users is projected to increase, as more and more people will be able to afford a mobile device in the future (Ceci 2022). Consequently, designers should adopt a Mobile First mindset when designing websites, as it prioritises the needs of mobile users. It can also help boost your visibility, as Google's search algorithm favours mobile-friendly sites. In addition, a Mobile First approach helps prioritise and crystallise the functions of your UI, as smaller mobile screens can only display a limited amount of information at a time (Morales 2021).

How well does your site or app adapt to different devices and resolutions?

Does your UI contain any features that could be hidden from mobile users without any loss in functionality?

RESPONSIVE DESIGN

UI ELEMENT

UI elements are the visually identifiable parts of a UI, such as its menus, images, links, buttons, and text fields (UX Academy Finland 2021). UI elements add interaction to the UI and provide users with touchpoints. UI elements can be used to create a visual language for your UI that, at its best, will allow your users to act intuitively. Above all, a UI element should appear interactable if your users are supposed to do something with it (De La Riva 2022).

UI COMPONENT

UI components are building blocks that consist of several UI elements. UI components speed up the design and implementation of UIs, since you won't have to recreate your elements for every new design. UI components save time and provide your applications with a uniform appearance (UX Academy Finland 2021). Some examples of UI components include various menu components that help users navigate products and websites, as well as containers that keep related content together (De La Riva 2022).

Are your UI elements visually consistent?

Do your elements support and guide your users' actions?

USER FLOW DIAGRAM

UI flow is used to depict the user's digital customer path, from the start of their journey to when they finish their task and leave the service (Browne 2021). A user flow diagram is usually not linear and may branch out several times. Defining different options helps designers discover possible inconsistencies in a service and thus optimise the user experience (Baskanderi 2017).

In most cases, the user flow diagram is depicted as a wireframe model of the entire UI, with arrows indicating how the different parts of the UI connect to each other and how the user moves between them. The aim is to demonstrate as clearly and simply as possible what happens after each button is pressed and how the user advances to the next view or function (UX Academy Finland 2021). The simplest model only describes the customer journey within the UI, but the model can be expanded by accounting for the user's entire service path and interactions with their environment and other people, devices, and services (Browne 2021).

Modelling user paths is particularly worthwhile when assessing the usability of existing UIs, creating new and intuitive UIs that allow users to immerse themselves in their tasks, and presenting products visually to customers or colleagues (Browne 2021).
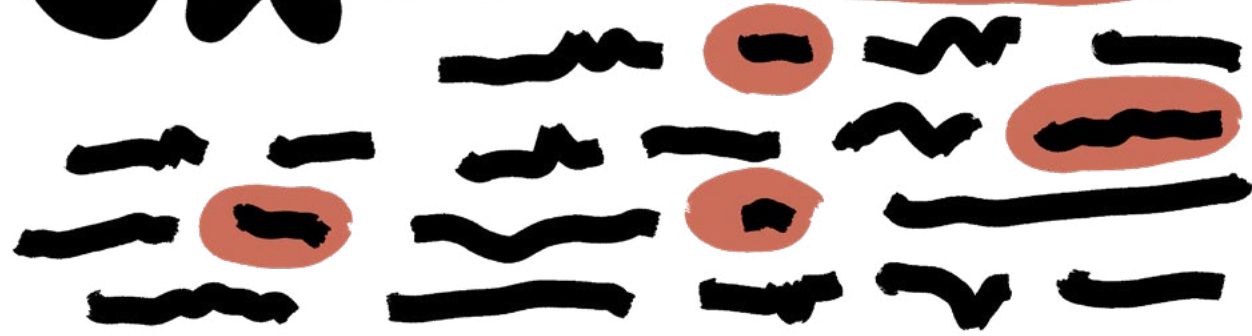
How do users navigate your site/app?

Is your user path intuitive and logical?

Are there any points where your users' actions differ from the path you've designed for them?
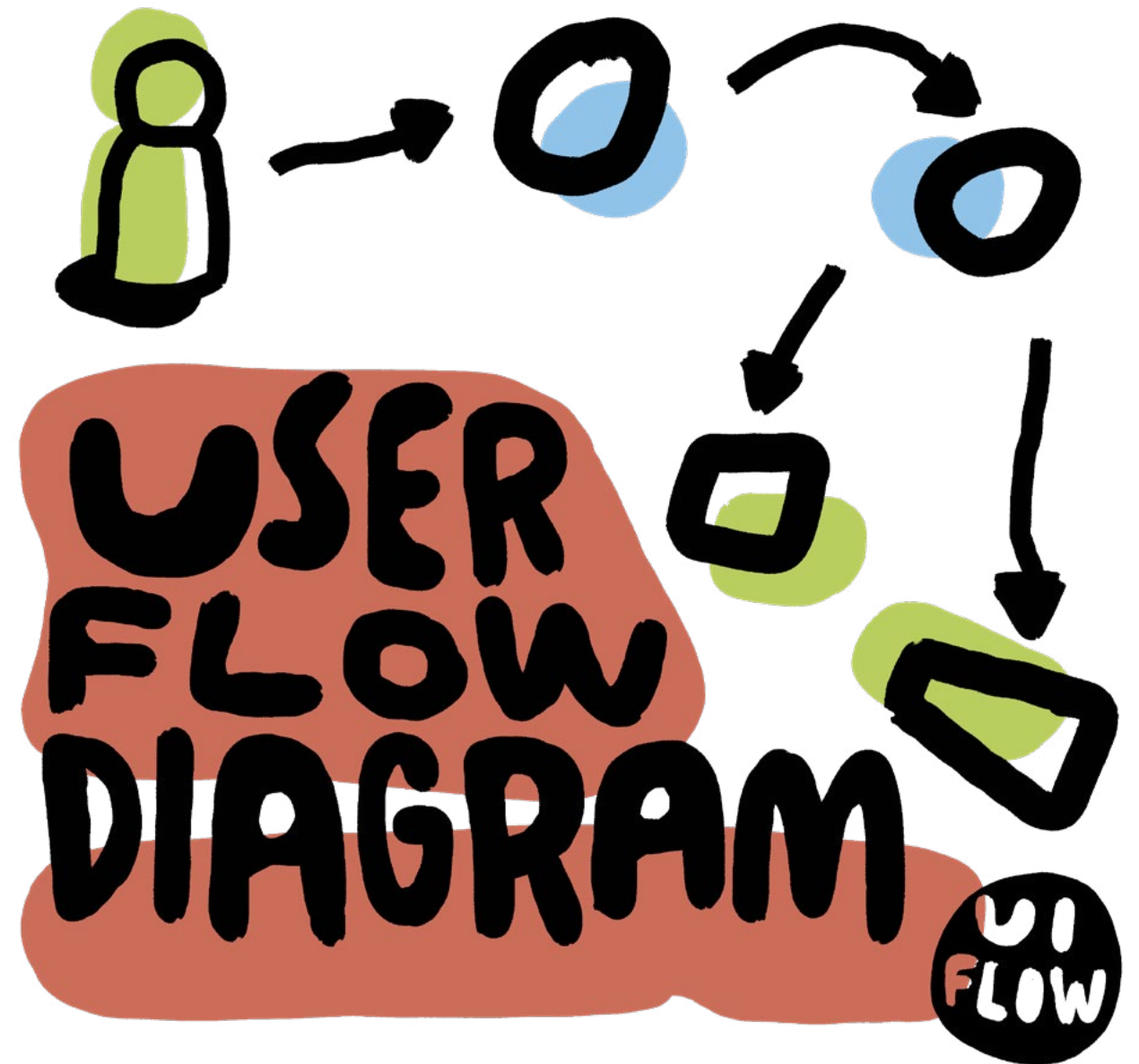
UX WRITING

Since text accounts for a large share of digital contents, it deserves to be examined from the perspective of UX design. The narrowest form of UX writing focuses on the text elements of a UI, but UX writing can also be used to clarify and summarise contents while taking clear language and accessibility standards into account. UX writing involves aligning a service's communications and tone-of-voice with its branding, target audience, and utilisation contexts, while also uniformly adapting its text content to different environments. The aim is to support others who share the same goal and ensure that the same terms and expressions are used in every environment (Heikkilä 2021).

TYPOGRAPHY

Typography gives text its visual form. It refers to the design and composition of a text's structure, letter layout, and colouring. Originally, typography referred to the design and typesetting of the typefaces (fonts) used in print, but the concept's scope has since been expanded (Graafinen 2015). Typography provides a visual shape to written language, creates hierarchy, and brings text to life. Typography makes text legible, clear, and visually attractive. It also helps ensure that your message is transmitted correctly.

What is your company's voice, and does it take your target audience into account?
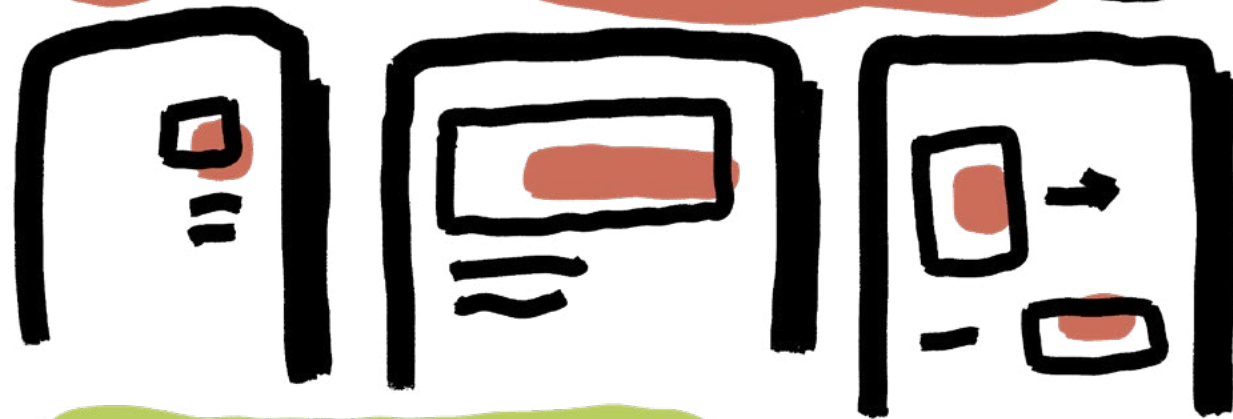
Do you communicate consistently and distinctively across all your channels?

Are your frameworks and objectives consistent throughout your organisation, and are they shared by your personnel?

A user interface is like a joke
– if you have to explain it,
it's doesn´t work.

– Katariina Pakarinen

WIREFRAME

A wireframe model is a simple, two-dimensional visualisation of the basic features of a website or application, such as its structure, functions, and button placements. It can also be used to describe how users will navigate the website or application and how its information can be structured comprehensibly. Wireframes are usually very simplified depictions that include no design flourishes. They can be created on paper or digitally, depending on the necessary number of details (Jaye 2021). Wireframes are fast and inexpensive to create, and they help designers focus on users-friendliness and clarity as they plan their concepts and products.

MOCKUP

A mockup is a visual model of a product or service. It presents the basic features of an application or website without any of its functionalities, but unlike a wireframe model, it includes the UI's visual design (Mkrtchyan 2018). Mockups help designers test various details and make final decisions about a product's colour scheme, visual style, and typography.

What types of wireframes or mockups have you used?

What were their benefits or disadvantages?

PROTOTYPE

A prototype is a concrete model of a physical or digital product, service, or space. Prototypes are used to inspect and test the appearance and functions of different solutions. The resulting model may be very close to the final product, or it can be just a part of it that is used to examine the details and features of the entire product. In the digital world, prototypes help designers test various aspects, such as the usability, functionalities, and visual design of an application or website.

Prototypes are used to communicate ideas between the design team and their clients and stakeholders, and they are also used in collaboration with customers. Prototypes are not just static visualisations, sketches, or models – their interactivity allows users to test how something will actually function. They help test the flow of a design solution and collect feedback and development proposals from stakeholders before the creation of the final product or service. Prototypes are important tools for identifying user pain points during usability testing (Smith 2019).´

Physical prototypes are used to test different material options, physical dimensions, and ergonomic solutions. In service development, prototypes are used to test various aspects, such as interactive situations, customer paths, and space-related functions.

The purpose of a prototype defines its level of detail:

- Low-fidelity prototypes are used to test a product's functionalities, although some of its most important visual elements can be included for clarity and usability.

- Paper prototypes and clickable wireframes are fast and inexpensive to create and help clarify design ideas and define the basic aspects of the product under development.

- High-fidelity prototypes, on the other hand, include all the functionalities, contents, and visual design aspects of the final product.

- A high-quality prototype is a good choice when you already have an accurate understanding of the end product and want to test it with the right users or demo it to your customer before finalising its coding. (Babich, 2017.)
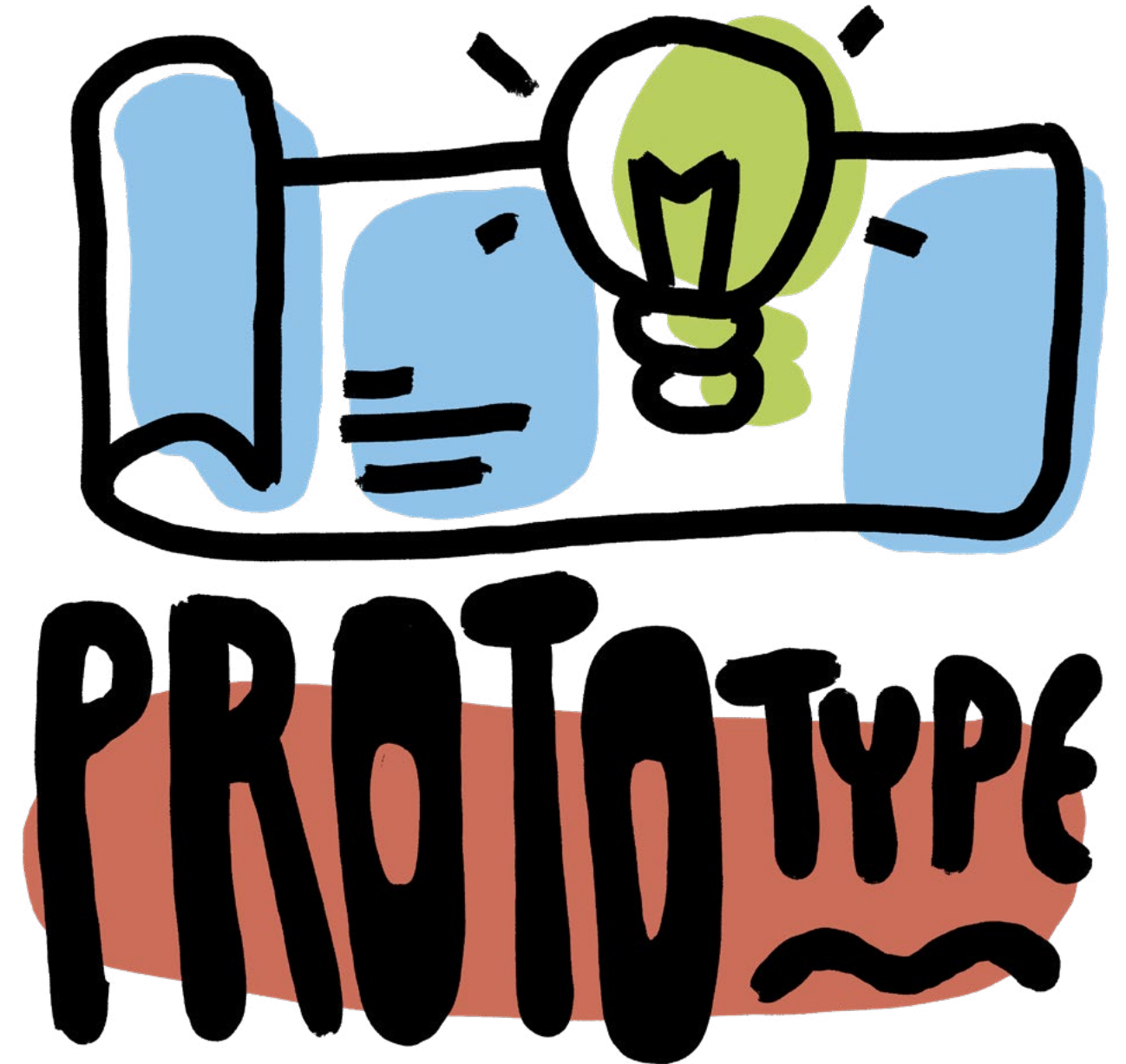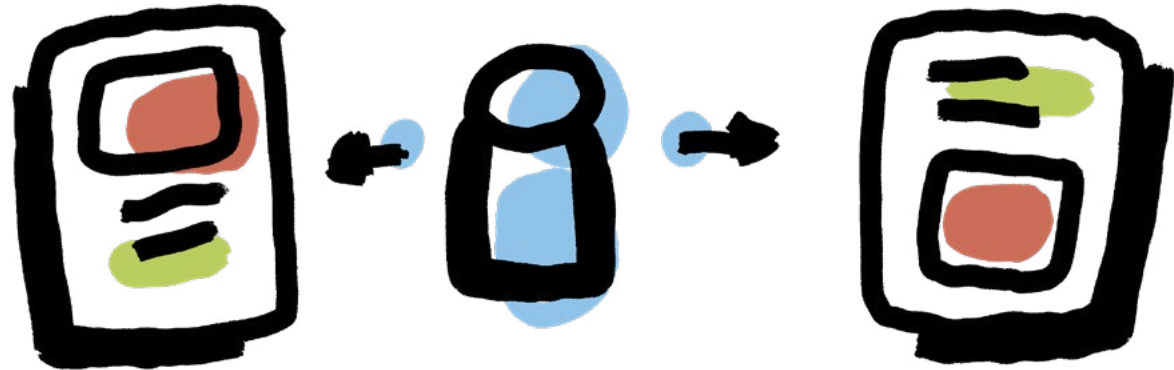
A/B TESTING

A/B testing, also known as split testing, refers to a randomised experiment where different segments of users on a website or application are shown two or more variants of the website or application at the same time. The goal is to determine which variant has the biggest impact on users and the company's business metrics (VWO 2022). Variant A is the original and variant B onwards each contain at least one element that has been modified from the original.

BETA TESTING

Beta testing refers to a testing process where a nearly finished product or service is submitted to users for testing and approval purposes. The testers evaluate the product's real-world performance and look for possible errors.

There are no standard forms or implementation methods for beta testing, but a product should fulfil some criteria before it is tested. These are presented on the right.

Beta testing criteria for products:

- The product must include all of its planned features.
- The product must be stable so that your testers do not encounter any unnecessary crashes.
- Your testers must belong to the target audience or user group of the product or service.
- Your testers should test your product or service in a realistic environment and use it to complete real tasks. (Babich 2019b.)

**If your product is beautiful,
but it doesn't work, then it's actually
pretty ugly.**

– Tommi Mustaniemi

Authors

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I am a Principal Lecturer in Visual Communications at the Design Institute of LAB University of Applied Sciences. I am a Doctor of Arts (Aalto), Master of Political Sciences (HY) and Graphic Designer (TaiK). My goal is to combine usability with aesthetics. My special area of expertise is digital UX and publishing, especially on touchscreen devices.

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I am a Senior Lecturer in Computer Science at LAB University of Applied Sciences. My special areas of expertise include UX/UI design and implementation, as well as user testing with e.g. eye-tracking technology. I want to develop more user-friendly services and applications that take the end-user and customer into consideration in the best possible way. I have worked in the IT sector for 15 years as a project manager and UX/UI team leader.

Tommi Mustaniemi

I graduated as a bachelor of Arts from Lahti University of Applied Sciences in 2009. Since then, I serve as an RDI expert and teacher in the planning of multimedia and media content at the Design Institute of LAB University of Applied Sciences. I have worked as a content producer and video artist for over 10 years with various events, artists, projects, and companies, in addition to which I have been Lahti Basketball's graphic designer since the team's founding.

Katariina Pakarinen

As a designer, I focus on customer experience, visual communications, and future thinking. I serve as an expert at LAB University of Applied Sciences. I encourage companies to genuinely and empathetically reflect on their products and services from the end-user's perspective, as it is vital for enhancing a solution's value and the user's experience.

Jose Piironen

I helped launch the LAB UX Center as its project manager, and I currently serve as the project's business expert. Previously, I have worked as a business advisor for upcoming and current companies and in the business idea sector. I want to support Finnish companies on their path to growth and international opportunities. In a world of global competition, customer satisfaction and loyal customers are important for any business in any industry. UX is a very interesting topic, as its focus is always on the user, i.e. a real person.

Lasse Torkkeli

I am a Principal Lecturer of Digital Business at LAB University of Applied Sciences. I am a Doctor of Science (Economics and Business Administration) and a Master of Science (Technology) in Computer Science. My special fields of expertise are the preconditions for the international growth of SMEs and digital international entrepreneurship.

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