

Find your way in the UX process jungle

An introduction to UX process models and methods and a practical session on how to find a suitable process for your project

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ABSTRACT

Many UX process models have emerged over time. Especially beginners, but also advanced users, often find it difficult to orient themselves and to choose a suitable process for a specific project. In the first part of this course, we will explain different UX process models, their similarities and differences, associated UX methods, and their application areas. In the second part, participants will divide into groups to work out a concrete case study, in which they will decide upon suitable processes and methods for a specific use case. The course is designed to inspire, deepen knowledge, and refine practical skills.

CCS CONCEPTS

• **Human-centered computing**; • **Human computer interaction (HCI)**; • **HCI theory, concepts and models**;

KEYWORDS

UX process, UX methods, UX practice

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1 BENEFITS

UX practitioners usually work in an interdisciplinary environment and act as a link, for example, between designers, developers, and users. Depending on the work environment, different requirements for the selection and implementation of UX process models and methods arise in turn. The requirements for decision-making concern, for example, the user experience maturity of the company, the already prevailing or established processes, the product (e.g., online store, enterprise software, hardware, etc.), and the users (e.g., own employees, customers, hard-to-reach user groups, etc.). In contrast, many process models have emerged over time from different disciplines such as psychology, design, computer science, or marketing.

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Due to the variety of influencing factors, it is challenging, not only for UX beginners, to select a suitable process for a specific use case, to adapt a process to an existing one, or to combine a process with other processes, such as a Scrum workflow.

For participants with little experience, this course is intended to introduce the various processes. It is intended to convey that there is not the one, perfect model for every use case. Rather, UX professionals must do their own research first to understand the specific use case, e.g., ask questions like: Who are the project stakeholders? Is there an existing development process? Does the project team already use any UX methods? How is the acceptance of UX in the development team? Based on that, they must select the right process steps and methods from a large pool of possibilities.

After the course, participants will be able to

- explain and separate common UX processes from each other.
- describe the decision criteria for choosing between common UX processes.
- explain selected UX methods.
- describe the decision criteria for choosing between selected UX methods.
- choose resp. combine suitable processes and methods for specific use cases.
- use experiences and knowledge that other course participants brought into the course to support their own decision making regarding UX process models and methods in practice.

2 INTENDED AUDIENCE(S)

This course is particularly aimed at people with rather little UX process experience. This can be students, career entrants, and beginners from all disciplines who are involved in the development of interactive systems. In particular, students from computer science, engineering, or other faculties where teaching UX processes is not necessarily part of the curriculum could benefit from the course. Furthermore, practitioners, who are involved in the development of interactive systems will find useful information in this course on how to choose processes and methods to best fit their specific requirements.

We also welcome professionals from industry or academia who will benefit from taking this course by learning new techniques to deepen their knowledge, learning from the experiences of others, and passing their knowledge to others.

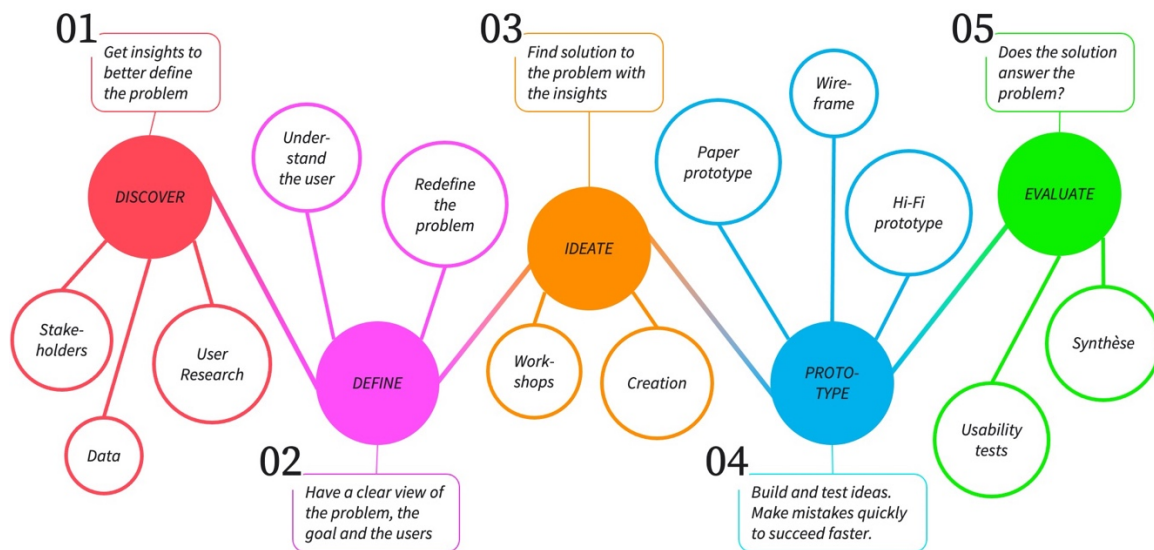


Figure 1: Excerpt from infographic by Bouniq Mercier.

3 PREREQUISITES

Participants of this course need a basic understanding of usability, user experience, and the principles of human-centered design. They should be familiar with common UX methods, such as user studies in general, observations, surveys, interviews, evaluation, and prototyping. Previous knowledge of common UX process models helps to get the most out of this course but is not necessary.

4 CONTENT

The course consists of two units of 75 minutes each. In the first unit, the theoretical basics about UX process models and methods are taught as described below. The presentation of this first unit will be given using slides. In the second unit, the gathered knowledge is deepened in a practical way by means of case studies carried out in small groups. This practical part is described in section 5 in more detail.

As basis, to introduce the different process models, we use an infographic by UX designer Bouniq Mercier [1], who illustrated a classic UX process based on Design Thinking and extended the phases through typical UX methods and tools.

Figure 1 shows Bouniq Mercier's representation of the five process phases: Discover, Define, Ideate, Prototype and Evaluate. Each phase is assigned to a color. In addition, a brief description of the respective goal and individual associated methodological focus of the phase is shown. We will use this graphic to introduce and compare common UX process models, such as Design Thinking [2] the Human-Centered Design Process DIN EN ISO 9241-210 [3], the Double Diamond Model [4], the Contextual Design Process [5], as well as Agile UX methods such as Iteration 0 and Dual Track

Agile [6], Lean UX [7] and Design Sprint [8]. We will discuss the similarities and differences between the different models.

For each process model, we will provide insight into the following:

- **Genesis - Who developed this method and for what purpose?** This is important because the genesis history facilitates and clarifies the understanding of the purposes and focus of each method.
- **Approach and core aspects - How is this process model approached?** The approach with its individual phases is briefly presented here. Moreover, we provide concrete examples on how companies applied the respective method in practice.
- **Possibilities and limitations - What are the strengths and weaknesses of the process model?** We will discuss how to integrate the approach into existing working environments (agile, classical). We also consider other aspects, constraints and circumstances that influence the decision making on which process and/or model to choose for a specific project. Criteria include, e.g., the company's UX maturity, available resources, and goal of the project.

After presenting the individual UX process models, we will discuss how the processes can be combined with each other in practice. For example, the Design Thinking approach can be very well integrated into Sprint 0 as a participative workshop to develop new innovative ideas. In addition to generating innovative ideas, it has the advantage that even team members who are inexperienced in UX are taught the essential aspects of UX right at the beginning of the process.

The last part of the first unit deals with methods. At first glance, the process models hardly differ when it comes to the question of which methods are used in the individual phases. However, the implementation or application differs. This can be easily illustrated using the example of personas. Proto-personas are, e.g., usually used within lean process models such as Design Thinking or Lean UX. In contrast, data-driven personas are based on extensive user research and are therefore more likely to be part of comprehensive process models.

5 PRACTICAL WORK

In the second part of the course, participants will split up into small groups for a hands-on session. After having chosen one out of three given case studies, the groups will work out the case study. The task of the session is to decide on UX processes and methods for the specific use case defined in the case study. Each group needs to explain the rationale for their decision making. At the end of the session, each group will present their work in the plenum. Participants will be encouraged to present their work in a creative, pleasant, and compelling way as if they presented in front of the management they need to convince of their decisions. For presentation, participants are free to use any kind of materials.

During the practical sessions, participants can use flipcharts and moderation materials, as well as personal devices they brought with them.

5.1 EXAMPLE CASE STUDY

Imagine, you are the only UX researcher in a medium-sized (about 20 employees) software development company with several software developers, two UI/UX designers, three project managers (product owners) and two managing directors. You are an experienced UX researcher with 5+ years of working experience. Your company uses an agile workflow.

You are responsible for a new customer project, starting within the next four weeks and running for a total of two months. The goal of the project is to design and develop a prototype for a new mobile service that helps its users to save energy in their everyday lives. Your task is to plan and run the project with a human-centered approach. Besides the planning, you are also responsible for all UX related activities within the project.

6 INSTRUCTOR BACKGROUND

Jutta Fortmann is a passionate Human-Computer Interaction and User Experience expert. Since 2021, she is professor for user experience design at IU International University of Applied Sciences in Germany. Jutta Fortmann holds a master's degree in Computer Science and a Doctor of Engineering, which she received for her research on the design of wrist-worn wearable technology, in particular smart digital jewelry. Before working at the IU International University of Applied Sciences, she has been working as senior UX engineer at the peak lab, where she was responsible for the integration of human-centered design activities into agile environments. Further, she drove the human-centered design activities in the energy transition project enera, one of the most extensive funding projects in Germany. At the same time, she held a teaching position for usability and user experience at the IBS IT & Business

School Oldenburg. Before, she was working as research assistant in the field of Human-Computer Interaction at the University of Oldenburg and the OFFIS Institute for Information Technology. Jutta Fortmann is the author of 30 peer-reviewed publications in human-computer interaction.

Adelka Niels is professor for user experience design at IU International University of Applied Sciences Erfurt, Germany. She was previously working as a senior UX architect at Habermaass GmbH, where her responsibilities included setting up a usability lab and analyzing and optimizing the usability of the company's online stores and various enterprise systems. One focus of her work was to integrate UX into existing IT processes. In 2018, she received her Doctor of Engineering from University of Bremen. Her dissertation focused on attributions in HCI; how user perceive success and failure when working with interactive systems and how this perception influences their behavior. She earned a diploma degree at the Technical University of Lübeck and completed part of her studies at the Zurich University of the Arts (ZHdK-Zurich). Before and during her dissertation, she worked and taught in Lübeck in the Information Technology and Design international (IGi) program. In addition, she has been an independent media designer and consultant in UX process management since 2006. Her (research) interests are ethology research in human-computer interaction, UX process optimization and benchmarking, and UX education.

7 ACCESSIBILITY

We welcome a diverse audience and will try our best to satisfy diverse needs. We can, e.g., provide printed handouts with slides for participants with visual impairments and can deploy a digital version of all written material, such as slides and handouts before the course, so that participants can use assistive technology on their own devices to access the information. For participants with hearing impairments, we can, e.g., provide a live transcription of the lecture.

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