

CS-489

Experience design

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Cursus	Sem.	Type
Computer science	MA1, MA3	Opt.
Cybersecurity	MA1, MA3	Opt.
SC master EPFL	MA1, MA3	Opt.

Language of teaching	English
Credits	6
Session	Winter
Semester	Fall
Exam	During the semester
Workload	180h
Weeks	14
Hours	6 weekly
Courses	2 weekly
Project	4 weekly
Number of positions	

Summary

As we move towards a design economy, the success of new products, systems and services depend increasingly on the excellence of personal experience. This course introduces students to the notion and practice of experience design (human and artificial design) following a hands-on, studio-based approach

Content

Experience design in practice encompasses the collection, analysis and design of users experiences based on a deep understanding of the context concerned. However, such typical workflow tends to be labor-intensive, time-consuming and limited (or biased) given the small datasets used. We will automate these processes algorithmically using crowd-sourced datasets and machine learning techniques, to rapidly visualize and iterate on multiple design experience options. The goal is to create a meaningful, interactive, data-driven/AI-assisted digital interface and physical prototype that are to be staged at an exhibition.

STUDIO BRIEF (Autumn 2018): The Augmented Museum

Today's museums are undergoing a significant process of reconceptualization, seeking new ways to curate and present their collections in both physical and digital spaces. These hybrid spaces of engagement need to be well synchronized to ensure a seamless and meaningful experience for the visitors. How does one design for a personalized experience according to the specificities of the museums' collections? We will work with a real museum or gallery and their physical and digital collections and help prototype innovative digital interfaces for exploring their collections. The course will bring together students from both IC and ENAC in a true interdisciplinary process, and consist of a non-linear process of 'design charrette', 'hackathon-like' and 'creative-coding' workflow. The course will contain a series of iterative design props: 'spatial-product mapping', 'human-action mapping', 'data-machine learning' and 'prototype designing' as an apparatus to construct a network of understandings, and create meaningful user experiences for a final design proposal/product.

Keywords

User Experience (UX) Design, Design Thinking, Creative Coding, Hackathon, Open Source, Optioneering, Iterative Prototyping

Learning Prerequisites**Required courses**

Bachelor in Computer Science or equivalent

Learning Outcomes

By the end of the course, the student must be able to:

- Identify issues of experience design in relation to an actual design project
- Perform rigorous analysis of the problem space and map the design opportunities
- Develop alternative design concepts for future artifacts
- Translate design concepts into meaningful experiences through iterative prototyping at appropriate scales and levels of granularity (creative coding)
- Create convincing arguments for the design propositions and persuasive visual and tangible evidence

Teaching methods

Hackathon, Creative coding, Lectures, Design reviews, Presentations, Group projects

Expected student activities

Hackathon, Group discussion, Case studies, Design Reviews, Pin-Up, Desk Crits

Assessment methods

Grading will be based upon the quality of the projects in the preliminary stages (10% problem maps, 10% value maps, 10% data maps), intermediary reviews (20% future maps) and in the final review (50%). Final projects will be reviewed and assessed based on their conceptual strength, the coherence of their translation into prototypes, their narrative clarity and experiential power, and the persuasiveness of their communication, both orally and through the presented artifacts.

Supervision

Office hours	Yes
Assistants	Yes

Resources

Bibliography

To be made available during the course