

Danish School of Media and Journalism
Visual Communication – course: Interactive Design
Course Description
Spring 2021

4. Semester (International)

Course: Visualizing Data

ECTS: 10

Aim

The course will focus on visual storytelling using datasets as the primary source. Students will learn about different types of data, how they can be visualized, interacted with and presented in a way that effectively conveys a message in an effective, engaging and trustworthy manner. The use of data visualization and information graphics throughout history will be briefly discussed. An experiential course, the emphasis is placed on hands-on development of contemporary digital, online-based interactive data visualization experiences.

Module's central subject elements are:

- Data Gathering, Data Management, and Data Validation
- Information Visualization
- Visual Design
- Storytelling

Students will:

- Research a given topic to identify and collect related datasets
- Critically reflect on sources, validity, and quality of the collected datasets
- Use storytelling theory and narrative models to plan and execute engaging visually-driven, interactive, and multimodal stories to present the information within their collected datasets
- Discover specific affordances tied to the nature of the individual datasets
- Argue both orally and in writing for their process and design choices

Attributes

Work discipline, self-study, willingness to cooperate, learning desire, openness, curiosity, willingness to research, planning ability.

Methods

The course is a combination of lectures, group work, teach-back, self-study, solving exercises and assignments. Tasks and exercises are solved individually or in groups. In the process, the emphasis is placed on analysis and reflection and feedback on own and others' products and process.

Tools

Graphic design, information visualization theory, visual communication theory, idea generation technique, programming, prototyping, wireframing, user interface design, visual storytelling theory, oral argumentation, presentation technique.

Course goals

After the course, students will have insights into and knowledge of:

- Information Visualization in a historical and contemporary perspective
- Storytelling and narrative theory and methods used to convey data-driven messages

- Critical assessment of data sources and validity of datasets
- Ethical and moral considerations concerning both positive and negative aspects of data-driven projects
- Data visualization as a way to reveal complex structures, flows, and relationships in a comprehensible visual form

After the course, students will be able to:

- Design, execute and present both static and dynamic data visualizations on analog and digital media
- Use data as a primary source for communicating messages and ideas
- Use data visualization in a reflective, informed and ethically sound way
- Collect and sanitize data from relevant reliable sources
- Use their graphic design and interface design skills to make interactive data visualization
- Argue orally and in writing for their data collection process, use of narrative structure, and design choices of their projects with particular regard of the affordances of the chosen media

Teaching Resources

- “Infographics Designers’ Sketchbooks” (2014), Steven Heller & Rick Landers, Princeton Architectural Press
- “Knowledge Is Beautiful: Impossible Ideas, Invisible Patterns, Hidden Connections—Visualized” (2014), David McCandless, Harper Design
- “Visualize This: The Flowing Data Guide to Design, Visualization, and Statistics” (2011), Nathan Yau, Wiley
- “Visualising Data: A Handbook for Data Driven Design” (2016), Andy Kirk, Sage
- “D3.js By Example” (2015), Michael Heydt, Packt Publishing
- “Data Visualization with D3.js - Full Tutorial Course” (2019), freecodecamp.org (available on YouTube: <https://www.youtube.com/watch?v=8V5o2UHG0E>)

Attendance at meetings and class

Attendance is required for all scheduled teaching hours. Active participation is mandatory in exercises, assignments, group work, and peer feedback sessions.

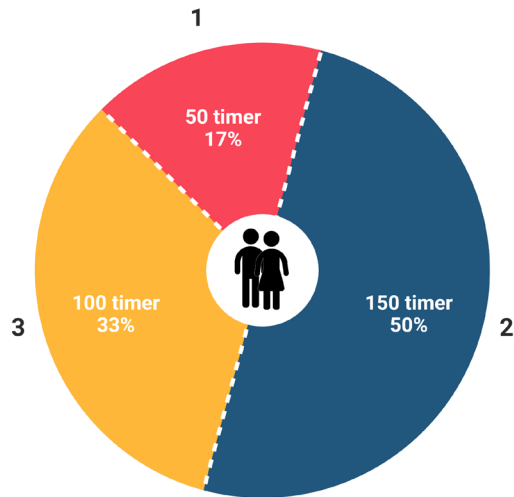
Examination

30-minute oral exam (+10 minutes per person in group exams, maximum of four people) The project is assessed according to the 7-step scale by an external examiner. To be legible for the exam, the course assignments must be submitted and approved in a timely manner, and the student must have been active and met the requirements for meeting and compulsory attendance.

Studieaktivitetsmodellen

Visualisering af data

300 timer i alt
10 ECTS points



Kategori 1

Undervisere har hovedansvaret for studieaktiviteterne, og studerende har et medansvar gennem forberedelse og deltagelse. Både studerende og underviser deltager.

Undervisning
Præsentation af
øvelser/opgaver
Vejledning
Eksamen

Kategori 2

Undervisere har hovedansvaret for rammesætning af læringsaktiviteterne, og studerende har hovedansvar for aktiv deltagelse i de tilrettelagte studieaktiviteter. Kun studerende deltager.

Arbejde med opgave enkeltvis og i grupper

Kategori 3

Studerende har hovedansvaret for studieaktiviteterne, og undervisere har medansvar for at rammerne er til stede. Kun studerende deltager.

Læsning af teori og anden vidensopsamling

Kategori 4

Studerende har hovedansvaret for læringsaktiviteterne, og undervisere har medansvar for at rammerne er til stede. Både studerende og underviser deltager.

Godkendt af NNS - 19. Jan 2021