Cognition & social interaction

Offered by: Department of Industrial Engineering & Innovation Sciences
Language: English
Primarily interesting for: All students, but most relevant for Web Science, Software Science, Industrial Design, Electrical Engineering, Industrial Engineering and Management Sciences, Biomedical Engineering, Medical Sciences and Technology, Architecture, Building and Planning, and Mechanical Engineering
Prerequisites: Introduction Psychology and Technology (Q1, 0HV10) is suggested as prior knowledge, but is not required.
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Content and composition

Why is it hard to drive a car while calling on a cell phone, whereas it is easy to drive and listen to music? How do we consider all information when buying a new tablet? How do humans interact with other humans, and does it make a difference if there is a computer in between? Why do some people share their entire life on the internet using Twitter and Facebook, whereas others are afraid to buy a book on bol.com?

If you are interested in understanding human behavior (you, the people around you and the future users of the technologies you will develop) these courses are of interest for you! The courses will provide insights into the extraordinary and fascinating cognitive and social capacities of human beings. Humans are often very flexible in adapting to the technologies they interact with. However understanding how humans think, make decisions, interact with other humans and in larger groups will help you in designing new technologies in such a way that they are better adapted to the humans that interact with them.

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¹ It is recommended to follow 0HV30 before any of the other two courses.

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Course descriptions

0HV30 Social Psychology & Consumer Behavior, Q2 (A)

Recommended prior knowledge: 0HV10

Why do you curse your computer when it crashes? Could people love their robots? How can technology help to make the world more just? Human behavior is determined by characteristics of the person and the situation that person is in. And that situation is largely a technological environment. So, to understand how technology and users interact, we focus on a fundamental understanding of the motives of the user (social psychology) and his behavior in a technical environment (consumer behavior).

0HV80 HTI in social context, Q1 (B)

Recommended prior knowledge: 0HV10

How do you get individuals to accept new ideas or technologies? How do you get people to cooperate on the internet and especially in social media? Social networks are becoming more and more important for solving these problems. In the course we discuss how human behavior is shaped by social networks, but also how people shape their social networks. We will focus on diffusion networks, and the question how networks influence adoption and diffusion of innovations. We discuss the social consequences of adoption of technologies, in particular the internet and social media. While introducing classical sociological theories and concepts, we focus on the relation between offline and online behavior and examine topics such as how trust can be created in online communities, and how internet capabilities affect our online behavior.

0HV60, Thinking and Deciding, Q4 (C)

Recommended prior knowledge: 0HV10, 0HV30, some statistical knowledge (e.g. from courses like 0HV00 and 0HV50)

Our cognitive system is very flexible and powerful, but also has important limits. This course helps you understand how humans function: how do they divide their attention, use their memory efficiently (or not) and solve problems? How should you design a good memory aid or route directions that are easy to understand?

It also helps you to understand how humans make judgments and decisions. How does a doctor make an accurate diagnosis, given the characteristics of a test? Why is it different to make a decision when you see two items presented separately or jointly? How do we decide between spending now or saving for the future? Are our decisions driven by conscious deliberate processes or by unconscious automatic processes? How can we help people make decisions using technologies such as websites and recommender systems?

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