Cognition and Social Interaction

Offered by: Department of Industrial Engineering and Innovation Sciences

Language: English

Primarily interesting for: All students, but most relevant for students with background in 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.

Contact person: Dr. U. Matzat (u.matzat@tue.nl)

Content and composition

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Level classification</th>
<th>Last year course is offered</th>
<th>Last year exam is offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>0hv30</td>
<td>Social and environmental psychology</td>
<td>1</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>0hv60</td>
<td>Thinking and deciding</td>
<td>3</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>0hv80</td>
<td>Sociology and social network analysis</td>
<td>2</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>

Course description

0hv30, Social and environmental psychology
Why do you curse your computer when it crashes? Could people love their robots? What makes a dark road feel unsafe? Can you feel less stressed by simply changing where you spend your time? Human behavior is determined by characteristics of a person and the situation that person is in. At the same time, that situation is shaped by the person’s environment. So, to understand how humans interact with each other and their environments, we focus on a fundamental understanding of both the social environment (through social psychology) and the physical environment (through environmental psychology).

0hv60, Thinking and deciding
Our cognitive system is flexible and powerful, but also has important limits. The course discusses how we divide our attention, use our memory efficiently (or not), represent knowledge and solve problems, and how technology can support cognitive processes. The second part considers human decision making and how decisions are influenced by simple heuristics and biases. We study judgments and decisions under (un)certainty and review applications such as nudging, artificial intelligence, and recommender systems.

0hv80, Sociology and social networks
The course is an introduction to modern sociological perspectives on technology and technology diffusion with a special focus on social networks and social media, and application of these insights to problems of human-technology interaction.