Course Description

Technology is extending human abilities. What effect does this technological symbiosis have on our brains and minds? And how should we design technology for a symbiotic future?

In this course we will explore how to “design with the brain in mind” based on neuroscience, and how to ask research questions about the brain which are meaningful for HCI.

As one of the domains within neuroscience that is most relevant for HCI, we will explore the human sensory experience. In particular we will examine how technology can be used for exposing hidden connections between the senses, and enhancing the human experience. Topics will include, but are not limited to, sensory substitution by means of technology, uncovering connections between the senses, enhancing human neuro-wellness using brain based technologies, and more.

School: Sammy Ofer School of Communications M.A.

A Neuroscientist Perspective on HCI

Lecturer:

Prof. Amir Amedi  amir.amedi@runi.ac.il

Course program and reading list

Semester 3 Year 2023

Course No.: 2895  Course Type : Elective  Weekly Hours : 2  Credit: 2

Course Requirements : Final Paper  Group Code : 233289501  Language: English
Course Goals

The knowledge gained through this course will facilitate the decision-making process of interaction design. By understanding how technology can interact with our sensory systems and thereby our brains, HCI designers and researchers will achieve a human-centered edge to their practice.

Students will gain an understanding of brain mechanisms and will learn how to think about the development of neuroscience-grounded applications, as well as ask and answer questions about the brain that are related to their work.

Grading

Grade Composition:

- Multiple choice test of foundational material (50%)
- Final presentation (50%)

Additional Notes

Production protocols:

The school allows usage of the technological infrastructure in accordance with the production protocols as published on the school's website.

Content:

All content produced as part of the workshops will follow ethical guidelines and will not contain inappropriate or offensive remarks.

The school maintains the exclusive right to publish and present selected student works in school events and in the media.

Reading List

Will depend on student projects. Can include:


- Kirk, (2013). The effect of newer communication technologies on relationship