



Kursplan

för kurs på forskarnivå

Artificial General Intelligence

Artificial General Intelligence

7.5 Högskolepoäng

7.5 ECTS credits

Kurskod: PS3AGI1
Gäller från: HT 2022
Institution Psykologiska institutionen

Förkunskapskrav och andra villkor för tillträde till kursen

Admitted to postgraduate studies in Psychology, Cognitive Science, Computer Science, or a related discipline. Master students with sufficient previous knowledge are also welcome.

Lärandemål

During the course, students are encouraged to find their own answers to the following question:

- What is AGI, accurately specified?
- Is it possible to build the AGI as specified?
- If AGI is possible, what is the most plausible way to achieve it?
- Even if we know how to achieve AGI, should we really do it?

Innehåll

The original goal of the AI field was to make machines that could think like humans - that is, computer systems with human-like general-purpose intelligence. This has been a very difficult task, which has led a majority of AI researchers to focus on what has been called “narrow AI” - the construction of AI systems that solve specific tasks in narrow domains.

Importantly though, more researchers are recognizing the necessity of returning to the original goals of AI. During the last 10-15 years there has been an increasingly stronger call for a transition back to confronting the more difficult issues of “human level intelligence” and more broadly “artificial general intelligence” (AGI).

Obligatoriska moment

All classes are mandatory with the possibility of individual supplementation.

Examinationsformer

The examination consists of two parts:

- A written paper (5-10 pages) where the student provide their own answers (with arguments) to the above four questions
- Presentation/demo of the project at an open seminar at the Department of Psychology

Arbetsform

The course consists of a theoretical part, and a project part.

The theoretical part includes, but is not limited, to the following:

- Definitions of AGI
- Limitations and objections to AGI
- Strategies and techniques for achieving AGI

- Ethics of AGI

The project part of the course will be to conduct a project related to AGI. Examples include:

- Implementation of a subset of a particular AGI model described during the course
- Robotics project, where parts of the software is based on an AGI software platform
- Experiment that evaluates the cognitive capabilities of an AGI system
- A philosophical text describing an important problem in AGI from a new perspective

All students will decide a topic for their practical project in discussion with the course organizers. Preferably, the topics are chosen with a connection to students' respective subject/research area. There will be an opportunity for individual supervision on the respective projects.