



Faculty Spotlight

Monday March 14, 2016
4 p.m. at Bernoulliborg, room 105

Faculty colloquium for scientific staff

Speaker: Dr. Bart Verheij
Artificial Intelligence and Cognitive Engineering

Arguments for Understanding our Complex World

Artificial Intelligence (AI) is currently in the center of attention, by high-profile applications in autonomous driving, big data analytics, and expert-level game play. These appealing examples of AI inspire dreams about the coming age of humanoid robots, and simultaneously lead to concerns about autonomous warfare, the demise of privacy, and human-robot competition in the labour market.

In this Spotlight, Verheij contends that realizing these dreams and countering these concerns require the same innovation in AI: the development of argumentation technology. Argumentation is a successful human activity: whether in science, in politics or in everyday life, our deepest insights have required extensive debates about different hypothetical options. In recent years, a lively community of AI researchers has started the development of argumentation technology. Verheij claims that argumentation technology can integrate two successful sides of AI: knowledge technology, founded on formal logic, and data technology, founded on probability theory. Such an integration is long sought for, and a prerequisite for the computer-supported understanding of the complex world we live in. As an example, Verheij will present results in an NWO Forensic Science project that he is leading.



Once robots can argue about the balanced reasonable choices that we know are needed for human-level skills, they become much less dangerous---not more than the rest of us.