CIN Workshop 2019

LIMITS OF AUTOMATIZATION

November 25 2019, Forum Scientiarum

The CIN Dialogues are a joint venture of FORUM SCIENTIARUM and the Werner Reichardt Centre for Integrative Neuroscience at the University of Tübingen.

CALL FOR APPLICATION
DEADLINE: November 07, 2019

Venue: FORUM SCIENTIARUM, Doblerstr. 33, Hörsaal, 72074 Tübingen, Germany

Also see: https://uni-tuebingen.de/einrichtungen/zentrale-einrichtungen/forum-scientiarum/veranstaltungen/cin-dialogues/

Machine Learning (ML) is the study and development of computational methods which help to improve the performance of a machine by enabling it to acquire knowledge from experience. Learning therefore has to be mechanized. The ML approach overlaps with the inductive task well known in the empirical sciences. In fact ML even aims for automatization in the scientific processes itself, thereby reducing or even replacing human intellectual work to some extent in the actual practice of science. The promise of some people in the field of ML research is that automatization of the scientific process will increase the rate of discovery and the productivity of science in general.

At least one tacit assumption seems to support this thesis, namely the idea that ML would range at the same methodological level as theory and experiment.

The workshop aims at exploring the limits of automatization in ML research in general and with respect to the scientific process. To what extent do human decisions still play a crucial role for the success of ML? How much does the epistemological power of ML algorithms depend on prior assumptions built right into the algorithms?

Do we need to develop a more nuanced view of the relation between human judgment, expertise and machine learning algorithms? Finally, how does this intricate entanglement affect questions of moral responsibility and the accountability of human agents using this technology?

For your participation please send an email to info[at]fsci.uni-tuebingen.de explaining your motivation to participate. Please note that participants are expected to stay for the entire workshop and to engage in discussion.
Faculty

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