Seminar Hora Informaticae **Institute of Computer Science, Prague**

Tuesday, October 10, 2023, 14.00 – 15.30 (2 - 3:30 PM) CEST

Meeting room 318, Address: Pod Vodárenskou věží 2, Prague 8

ZOOM Meeting ID: 954 7823 4977 , Passcode: 712564

ZOOM: https://cesnet.zoom.us/j/95478234977?pwd=dXoyekFHbDJ0MkNrTjVVS3F2STZqUT09

Jiří Wiedermann (ICS CAS) & Jan van Leeuwen (Utrecht University):

Artificial Wisdom: On the Power of Generative AI

In this lecture, we explore the purpose and potential of artificial intelligence (AI) in light of the current approaches to generative AI. We argue that the respective models can be seen as tools for acquiring and generating artificial wisdom, enabling us to make wiser decisions and behave more intelligently. Unlike earlier AI approaches, which focused on generating knowledge from data, contemporary language models have the ability to extract meaning from syntactic patterns and relate this meaning to real-world descriptions. This capacity reflects a form of cognition known in biology as 4E cognition, which emphasizes the embodied, embedded, extended, and enacted nature of intelligent behavior. We argue that contemporary large language models possess a form of illusory intelligence and illusory wisdom that has not been described in the literature before. By recognizing the potential of generative AI to generate and use wisdom, we can move beyond knowledge-centric approaches to AI and develop more nuanced models of intelligent behavior.

References:

[1] From knowledge to wisdom: the power of large language models in AI /Technical Report/ UU-PCS-2023-01, https://www.cs.uu.nl/groups/AD/UU-PCS-2023-01.pdf

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Jiří Wiedermann belongs to the first generation of pioneers in computer science in former Czechoslovakia. Between 2000-2012 he served as the director of the Institute of Computer Science of the Czech Academy of Sciences. He is a member of the Learned Society of the Czech Republic and Academia Europaea. In recent years he focuses mainly on algorithms and models for AI inspired by modeling human higher-level cognitive abilities such as machine consciousness, experience, understanding, and other semantic properties of AI systems. For more information, cf. his homepage at www.cs.cas.cz/~wieder and https://webspace.science.uu.nl/~leeuw112/list-vLW.html .

Jan van Leeuwen is a professor of computer science at Utrecht University, The Netherlands. He works on the theory, algorithms, and philosophy of computer science

(https://www.uu.nl/medewerkers/JvanLeeuwen1).

HORA INFORMATICAE (meaning: TIME FOR INFORMATICS) is a broad-spectrum scientific seminar devoted to all core areas of computer science and its interdisciplinary interfaces with other sciences and applied domains. Original contributions addressing classical and emerging topics are welcome. Founded by Jiří Wiedermann, the seminar is running since 1994 at the Institute of Computer Science of the Czech Academy of Sciences in Prague.

https://www.cs.cas.cz/horainf