Palacký University Olomouc

Department of General Linguistics

WINTER SCHOOL ON AI & SOCIETY

16–19 JANUARY 2023, OLOMOUC

AI IN DISCOURSE INDICATES...

... humanity's Other, and defines the repositories of normativity
... the human mirror, as a metaphor for making sense of the world
... renegotiating values and rules in society
... the relationship between science and technology
... the role and agency of society and individuals in technological development

These days, **artificial intelligence** is a buzzword we see everywhere. According to some, AI is poised to put humans out of their jobs, and ready to solve all major social problems. The concept of AI is used to designate so many different processes, systems, devices, and ideas that it almost loses any real meaning. What is behind this buzzword and the so-called intelligent technologies and their functions? How do our historical and cultural legacies affect our understanding, hopes, and projections for the future of AI? The four-day intensive course at Palacký University in Olomouc tackles these questions and many more, giving an interdisciplinary and diverse overview of the main theories, paradigms and discourses at the intersection of technology, society, and language.

APPLY BY E-MAIL

Open to students at all levels

Apply by December 20, 2022

LECTORS

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MORE INFORMATION

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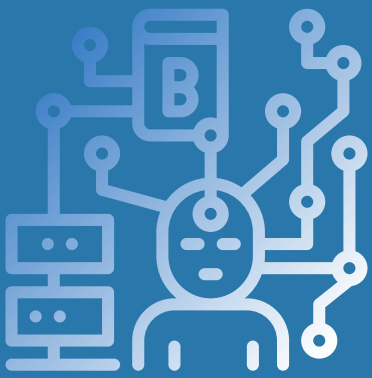

Programme

MONDAY, JANUARY 16

9.00-9.50

The history and the meaning of 'artificial intelligence'

We will look at the formation of the signifier *artificial intelligence* (AI), the kinds of objects and technologies it signified and sought to designate. Today, AI usually signifies a form of machine learning and/or a combination of software, hardware, and data. The concept of AI is also associated with autonomy and decision-making. From a broader perspective, AI can be understood as a technical practice, a set of methods, a discursive practice, or a cultural and socio-political phenomenon. In public consciousness, AI is understood mainly through specific objects and functions. The fields of cybernetics, behavioural psychology and economic theories have also contributed to the historical understanding and development of intelligent systems and functions.

10.00-10.50

The history and meaning of AI: (continued)

11.00-11.50

Practical exercise: debunking AI myths

AI is everywhere around us and affects many aspects of our everyday lives. But it is not as prevalent and pervasive as one might think: a lot of AI discourse contains sensationalist and misleading information about the technology. How can we recognise the hype and the myths? In this workshop, we will learn some simple techniques and methods that enable better orientation in the "tech talk" in media and help reveal the "mythical" layers in the discourse.

12.00-12.50

Contemporary applications: chatbots

TUESDAY, JANUARY 17

9.00-9.50

The historical entanglements of AI and semiotics

Semiotic models and theories have been implicitly coded within the AI field since the very beginning. Explicit calls for a semiotic theory of computers are more recent. Computer systems can be considered as inherently semiotic due to their function as extensions of human symbolic communication and signification. At the same time, computer systems remain assemblages of interactivity led by semiotic agents (humans). This section will focus on the vocabulary and implications of such entanglements and outline the semiotic parts in these supersystems.

10.00-10.50

Automation bias and the anthropomorphism of AI

In human-machine interaction, people sometimes tend to attribute greater authority to the machine than it deserves. Automation bias causes problems in several fields; elsewhere, anthropomorphic design is seen as a positive choice for better usability. We will look at the cases of automation bias and the lessons learned from machine mistakes.

11.00-11.50

Contemporary applications: language transformers and deepfakes

Until recently, language was the unique domain of human beings. Now, new language technologies challenge this assumption and enable the production of synthetically generated content. Additionally, deepfake algorithms enable the imitation of human voices and faces. It is increasingly difficult to recognise synthetic content as such. What does this mean for our culture(s)? How do text generators such as GPT-3 and deepfake technologies interfere with our traditional understanding of communication?

12.00-12.50

Military technologies

Technologies have always been developed partly with military purpose and support, and AI is no exception. This entanglement has shaped a vocabulary that is now common in the discourse on intelligent or autonomous machine functions. We will look at such concepts (*unmanned*, human-in-the-*loop*, etc.). We will also touch upon the debate on *weapons autonomy* and the positions of the EU and US policies on the topic of military AI.

Programme

WEDNESDAY, JANUARY 18

9.00-10.50

Subjectivity, objectivity, and the construction of reality

It is often assumed that humans live in a "meaningful world", but what exactly is this "meaningfulness", and how is it that it comes to exist? In this lecture, we will try to tackle this question from the point of view of semiotics, and we will do so in two steps. First, we will explore John Deely's notions of "subjectivity" and "objectivity", and we will explain how they relate to each other, and how their relating gives rise to a given meaningful reality. Our second step will consist in analyzing what it entails for meaning to appear through the interplay of subjectivity and objectivity (i.e. does it mean that meaning is simply subjective, or does it mean that it comes solely from objects?); to put it in other terms, is the meaning imbuing the world in which humans live arbitrary or motivated? This question will take us to consider the task of critique as among the main objectives of semiotic inquiry, and as the main goal of a general theory of signs.

11.00-11.50

Reality, language, and signs

How do we make sense of the world? What does it take for our perception to turn into more than reference? What is the place of language in the construction of our perception of the world? In this lecture we will explore different ways to understand language and the way it may (or may not) ground the world around us in a way that makes sense as perceived experience.

12.00-12.50

Ancient 'robots' and medieval automata

The concept 'robot' originates from Czech writer Karel Čapek. However, automata are common through history both in the real world and in stories. We will look at the 'living statues' present in Ancient Greek legends and the role of mechanical temple marvels in everyday culture and religion of Ancient Greece. Moving on to medieval Europe, the automata and artifice in stories merge with the concept of *Natura artifex*, inspiring the 17th-century notions of mechanical nature and clockwork-world, which have in turn contributed to our contemporary models of rationality, underlying the conceptualisation of current technologies.

THURSDAY, JANUARY 19

9.00-9.50

Technology and society

Is technology good, bad, or neutral? Can technology be neutral at all? These are questions still puzzling many researchers. The lecture will give an overview of the general trends of technological determinism and social constructionism and introduce some authors who have shaped the understanding of technology in the 20th century (Mumford, Ellul, Winner, Latour) and earlier (La Mettrie). Building on previous lectures, we will look at the state of the debate on the neutrality of technology today.

10.00-10.50

Social constructionism and its critique

What does it mean when researchers say that something is "socially constructed"? How can an individual or a society affect the course of history? Applied to current problems of alternative reality descriptions, conspiracy theories and viral media, the model of social constructionism reveals the mythological thinking and the "semiotic first"-perception of everyday reality where people often don't let themselves be distracted by the "brute facts" of their environment.

11.00-11.50

Contemporary applications / practical exercise

12.00-12.50

Superheroes, cyborgs, and artificial creatures in science fiction narratives

In contemporary science fiction, robots are often depicted as perfect humans. We will look at the spectrum of artificial, non-human or half-human creatures in fiction and their construction as the 'human mirror'. We will also inquire into the role of fiction in relation to reality, how it criticizes contemporary society and how sci-fi imagery is used by technologists in discourse.

Katedra
obecné lingvistiky

STUDY PROGRAMMES

The Department of General Linguistics at Palacký University offers degree programmes in General Linguistics and Theory of Communication, as well as in Linguistics and Digital Humanities. We also welcome visiting students and internships under Erasmus+ and Aurora funding programmes.

OLOMOUC IN JANUARY

With an average temperature between -4.0°C and +4.0°C, January is the coldest month in Olomouc. There is very little chance of rain, perhaps some snow.
Wear a base layer; bring a warm sweater and a winter jacket!

ARRIVING AT OLOMOUC

The nearest airports to Olomouc are in Prague, Katowice, Vienna, and Brno.

STUDENTS COMPLETING THIS COURSE

- have an overview of key meanings and objects historically associated with the concept of AI;
- are familiar with the historical and cultural roots of automated technologies and human-machine comparison;
- are aware of the main sociocultural mechanisms that contribute to our interpretations of technology;
- have an understanding of how concepts and meanings arise and circulate in culture and society;
- have tools for critically reading and analysing the discourses on AI and technology in general.

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