

International Workshop
"Scientific Thinking and Paradigms of the Future: Challenges and Possibilities in the AI Era"

Organizers:

Osaka University Research Center on Ethical, Legal and Social Issues (ELSI Center) General Research Division;

Goethe-University Frankfurt am Main Center for Critical Computational Studies (C³S)

RIKEN AIP Center Decentralized Big Data Team

Date: May 17 (Fri), 2024, 10:00-15:35

Eligibility: invitation only

Venue: Kyoto University Rakuyu Kaikan 1st floor Conference Room 1

Languages: Japanese-English simultaneous translation

Outline:

The idea that the future is uncertain and should be open is a fundamental assumption of modernity and modern Western thought. This indeterminateness of the future is confronted in various ways - with calculative processes, speculative utopian perspectives, and conceptions of time that make possible certain relations to the present and the past. Therein can be seen the human and societal need for predictability and prognosis, and the efforts to prophesize the future - with, for example, data- and algorithm-based processes and modelling and simulation - can be contextualized. Artificial Intelligence plays a specific role in that, by generating "algorithmicized futures," it not only epistemically (e.g. as self-fulfilling prophecies or preemptions) but also ontologically "closes" them. Depending on the specific implementation and boundary conditions, the intensive use of AI may lead to entirely new and unexpected insights and behaviour, as well as to intellectual impoverishment and the loss of diversity due to the curse of recursion (Ouroboros effect). While predictability is expanding through 'algorithmic reason', which has a programmed logic, through technology and AI, on the other hand, envisioning an uncertain future is becoming more complex than ever before.

Against this background, how can scientific thinking and innovation transformations be understood? What concepts of time and the future characterize the digital transformation of science and society? With the accelerating pace of innovation in AI and other emerging technologies, social systems and other human functions are also undergoing significant changes. This workshop will bring together researchers interested in these topics from various fields, such as philosophy, law, information science, data science, educational sciences and psychiatry, to develop interdisciplinary discussions.

Inquiry:

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Program:

May 17 (Fri), 2024

- 10:00–10:05 Opening Remarks and Lecture
Prof. Dr. Masaki Fukuda
(Professor and Director of the General Research Division, Osaka University Research Center on Ethical, Legal and Social Issues; Concurrent Professor, Osaka University Graduate School of Law and Politics; Senior Visiting Scientist, RIKEN AIP Center)
“ELSI Research as Preparation for the Future”
- 10:05–10:25 Keynote Lecture
Prof. Dr. Christoph Burchard
(Goethe–University Frankfurt am Main, C³S)
Prof. 'in Dr. Juliane Engel
(Goethe–University Frankfurt am Main, C³S)
“Computational Futures? Planetary Critiques!”
- 10:25–10:45 Keynote Lecture
Prof. Dr. Shoko Suzuki
(Professor emeritus, Kyoto University; Senior Visiting Scientist, RIKEN AIP Center; Guest Professor of the General Research Division, Osaka University Research Center on Ethical, Legal and Social Issues)
“Human transformation (HX) in the age of digitalization – a culturally aware approach”
- 10:45–11:35 Session 1 “Prospects for the Future”
10:45–11:05 Lecture
Prof. Dr. Ulrich Meyer
(Goethe–University Frankfurt am Main, C³S)
“Models and algorithms for large-scale stochastic networks: preparing for the future”
11:05–11:25 Lecture
Prof. Dr. Yuichi Ikeda
(Professor, Graduate School of Advanced Integrated Studies in Human Survivability, Kyoto University)
“AI augmented human survivability studies (tentative)”
11:25–11:35 Question and Answer
- 11:35–12:25 Session 2 “Future of Body and Mind”
11:35–11:55 Lecture
Prof. 'in Dr. Franziska Matthäus
(Goethe–University Frankfurt am Main)
“Virtual representations of complex systems – a modellers

perspective on life science and digital future”

11:55–12:15 Lecture

Dr. Hironobu Fujiwara

(Associate professor, Department of Neuropsychiatry, Graduate School of Medicine, Kyoto University; Visiting Scientist, RIKEN AIP Center; Guest Associate Professor of the General Research Division, Osaka University Research Center on Ethical, Legal and Social Issues)

“Harm and possible health benefits of the IoT use”

12:15–12:25 Question and Answer

12:25–13:25 Break

13:25–14:15 Session 3 “Future of Education”

13:25–13:45 Lecture

Prof. Dr. Toru Iiyoshi

(Professor, Academic Center for Computing and Media Studies/Graduate School of Education Kyoto University)

“Predicting The Unpredictable: Future of AI-Enabled/Disabled Education”

13:45–14:05 Lecture

Dr. Saskia Terstegen

(Goethe-University Frankfurt am Main)

“Becoming Planetary: Powerful Narratives and non-linear Concepts of time in Education”

14:05–14:15 Question and Answer

14:15–15:05 Session 4 “Future of Law”

14:15–14:35 Lecture

Finn-Lauritz Schmidt

(Goethe-University Frankfurt am Main)

“The Concept of Future in Criminal Law - Images of the Future as Drivers of Criminal Policy”

14:35–14:55 Lecture

Dr. Takuya Hihara

(Assistant Professor of the General Research Division, Osaka University Research Center on Ethical, Legal and Social Issues)

“Generative AI and Criminal Law (tentative) ”

14:55–15:15 Dr. Ryota Akasaka

(Associate Professor of the General Research Division, Osaka University Research Center on Ethical, Legal and Social Issues)

“Distribution and Legal Protection of Sensory Data”

15:15–15:30 Question and Answer

15:30-15:35 Summary and Closing Remarks

Shoko Suzuki

(Professor emeritus, Kyoto University; Senior Visiting Scientist, RIKEN AIP Center; Guest Professor of the General Research Division, Osaka University Research Center on Ethical, Legal and Social Issues)

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[After the closing of the workshop (closed)]

15:45-17:00 Free discussion, including exchange of views on the possibilities of future collaboration)

(Languages: Japanese-English simultaneous translation)