OMINO FINAL CONFERENCE AGENDA

Overcoming Multilevel INformation Overload
Project: 101086321 — OMINO
22-23 October, 2026
Location: Warsaw, ul. Rektorska 4, REK4 BUILDING, Room no. 1.01 (1 floor)

Day 1 - 22 October 2026		
09:00 – 09:15	**Welcome and morning coffee**	
09:15 – 09:30	**Opening**	**Prof. Mariusz Zdrojek** Vice-Dean of the Faculty of Physics **Prof. Janusz Hołyst** OMINO Project Coordinator Warsaw University of Technology
09:30 – 11:00	**Session 1 (3 talks)**	
09:30 – 10:00	**ON-LINE** Epistemic Labour in Contemporary Information Access	**Dr Johanne Trippas** [1] Royal Melbourne Institute of Technology, Australia
10:00 – 10:30	Hallucinated and Suspicious Citations: How current tools can protect us from misinformation overload	**Dr Philipp Mayr** GESIS - Leibniz Institute for the Social Sciences, Germany
10:30 – 11:00	**ON-LINE** Overload of scientific information is associated with declining attention to disruptive research	**Prof. Shlomo Havlin** [2] Bar Ilan University, Israel
11:00 – 11:30	Coffee break	
11:30 – 13:00	**Session 2 (3 talks)**	
11:30 – 12:00	Modelpedia, how should we organise our knowledge of AI models so as not to get lost in a flood of AI incidents?	**Prof. Przemysław Biecek** Warsaw University of Technology
12:00 – 12:30	AI Science: the New Era of Science	**Prof. Przemysław Kazienko** Wrocław University of Science and Technology
12:30 – 13:00	Towards Human-Centric AI under Information Overload: Expert-Grounded Knowledge, Trustworthy Representations and Evaluation Methodologies	**Dr Anna Wróblewska** Warsaw University of Technology
13:00 – 14:15	Lunch	
14:15 – 15:45	**Session 3 (3 talks)**	
14:15 – 14:45	STA newsroom tools	**Sebastijan Maček** Slovenian Press Agency, Slovenia
14:45– 15:15	From Information Access to Human-Centred AI: UoW Highlights and Emerging Directions in OMINO	**Dr Anirban Chakraborty** University of Wolverhampton, UK
15:15 – 15:45	From Fake News to Clickbait: Detecting Information Disorder in Online Media	**MSc Soveatin Kuntur** Warsaw University of Technology
15:45 – 16:15	Coffee break	
16:15 – 17:15	**Session 4 (2 talks)**	
16:15 – 16:45	When Does More Information Help Us, and When Does It Overwhelm Us?	**Dr Alon Sela** Bar Ilan University, Israel
16:45 – 17:15	**ON-LINE** The Bottleneck Moves: Information Overload, Coordination, and AI in Scientific Work	**Dr Curtis Atkisson** [3] University of Washington, USA
18:00 – 21:00	Networking dinner *	

* Networking dinner will take place at the Faculty of Physics, Koszykowa 75, 00-662 Warsaw

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Day 2 - 23 October 2026		
9:30 – 11:00	**Session 5 (3 talks)**	
09:30 – 10:00	Selected OMINO datasets to search for Information Overload	**Prof. Julian Sienkiewicz** Warsaw University of Technology
10:00 – 10:30	**ON-LINE** The Dual Revolution of AI: Technological Transformation and Human Decentering	**Prof. Eric Cambria** [4] Nanyang Technological University, Singapore
10:30 – 11:00	Understanding Embedding Noise	**Dr Krzysztof Suchecki** Warsaw University of Technology
11:00 – 11:30	Coffee break	
11:30 – 13:00	**Session 6 (3 talks)**	
11:30 – 12:00	Cialdini in Agent Society: From Classical Principles of Social Influence to Emotional Strategies in Agent-to-Agent Interaction	**Dr Wiktoria Mieleszczenko-Kowszewicz** Wrocław University of Science and Technology
12:00 – 12:30	From Information Overload to Governance Overload: Subsidiarity as a Design Criterion for the Human–AI Boundary	**Prof. Sylwia Sysko-Romańczuk** Warsaw University of Technology
12:30 – 13:00	Genomics in the Age of Information Overload: Processing, Denoising, and Modeling Sequencing Data	**MSc Antoni Pietryga** Warsaw University of Technology
13:00 – 14:15	Lunch	
14:15 – 15:45	**Session 7 (2 talks)**	
14:15 – 14:45	When Generative AI Judges—and Is Judged: Evaluation in the Era of Information Overload	**MSc Filip Kucia** Warsaw University of Technology
14:45 – 15:15	Empathetic and Embodied Information Retrieval and Access	**Dr Haiming Liu** University of Southampton, UK
15:15 – 15:45	Information Overload in Academic Communication	**Prof. Ingo Frommholz & Dr. Daniel Dan** Modul University, Austria
15:45 – 16:00	**Closing**	**Prof. Janusz Hołyst** Warsaw University of Technology
16:00 – 16:30	Networking coffee	
16:30 – 17:30	**OMINO internal meeting**	

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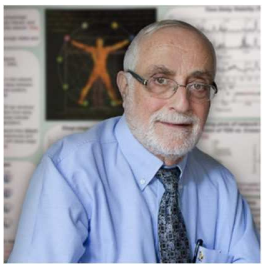
OMINO Special Guests (online)

[1] Dr Johanne Trippas is a Vice-Chancellor's Senior Research Fellow in the School of Computing Technologies, STEM College at RMIT. Dr Trippas has built an international reputation as a leader in conversational information-seeking research, especially at the intersection of information retrieval, human-computer interaction, and dialogue analysis, with the aim of making information more accessible. Her research aims to improve information accessibility through conversational systems, interactive information retrieval, and human-computer interaction. She is particularly interested in how conversational systems can revolutionise information seeking, especially through generative interactive information retrieval and novel interfaces beyond traditional text search.



[2] Shlomo Havlin is a Professor in the Physics Department at Bar-Ilan University in Israel. He has carried out fundamental research in statistical physics and its applications to areas such as complex networks, infrastructure resilience, geophysics, climate, medicine, biology, traffic and others. He has published over 800 scientific papers and is among the two most cited scientists in Israel with over 100,000 citations and an h-index of 150 (Google Scholar). For his works, he has been awarded the Lilienfeld Prize from the American Physical Society, the Rothschild Prize, the Order of the Star of Italy, the Israel Prize for Physics and Chemistry and the 2023 Bakhuis Rooseboom Medal of the Royal Society of Science of Netherlands.

[3] Curtis Atkisson joined the eScience Institute in Feb 2024. He received his PhD in Evolutionary Anthropology from UC Davis with a designated emphasis in Computational Social Science. His postdoctoral work applied his methodological expertise to understanding Open Source Software communities and how they persist, as well as expanding his tools to include Text As Data/Text Mining, machine learning, and AI approaches to understanding text (e.g., GPT as a zero-shot translator). Curtis brings a broad and mixed set of both qualitative and quantitative methods that can be used to understand dynamic processes as well as their surrounding contexts. He has an emphasis on network analysis, including complex networks.

[4] Erik Cambria is a Professor of Artificial Intelligence at NTU CCDS, where he also holds the appointment of Provost Chair in Computer Science and Engineering, and a Visiting Professor at MIT Media Lab. He is an IEEE Fellow and has founded several AI companies, such as SenticNet, offering B2B sentiment analysis services, and finaXai, providing explainable financial insights. Prior to joining academia, he has worked at HP Labs and Microsoft Research. Today, his research focuses on neurosymbolic AI for interpretable and explainable affective computing in domains like mental health, climate resilience, and socially responsible investing. Prof Cambria is ranked in Clarivate's List of World's Top 1% Scientists since 2022, is recipient of many awards, e.g., AI's 10 to Watch, and was featured in Forbes as one of the 5 People Building Our AI Future.

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ABSTRACTS

Prof. Erik Cambria (NTU): *The Dual Revolution of AI: Technological Transformation and Human Decentering*

AI is often described as the fourth technological revolution, following the agricultural, industrial, and internet revolutions. Yet AI represents more than a technological transformation: it may also mark a fourth great decentering in human history. Copernicus displaced humanity from the center of the universe, Darwin from the summit of biological life, and Freud from the center of the mind. AI now challenges humanity's presumed monopoly on intelligence. This keynote examines AI through historical, philosophical, technological, and societal lenses, exploring how artificial intelligence is reshaping not only what machines can do, but also how humans understand intelligence, cognition, and their own place in the world. Particular attention is given to the growing information overload created by increasingly abundant digital content and to the emerging role of AI in filtering, organizing, interpreting, and contextualizing information. From search and recommendation systems to generative and commonsense AI, intelligent systems can help transform overwhelming information into knowledge that is more relevant, understandable, and actionable. This perspective connects the technological revolution of AI with the challenge of overcoming information overload at multiple levels. At the same time, it raises a fundamental question: as AI increasingly mediates our access to information and participates in cognitive tasks, how should humans retain understanding, agency, and control? The keynote explores these opportunities and challenges through the lens of cognitive decentering and the evolving relationship between human and artificial intelligence. More information: https://link.springer.com/10.1007/s12559-026-10569-8.

MSc Soveatin Kuntur (WUT): *From Fake News to Clickbait: Detecting Information Disorder in Online Media*

Large Language Models have transformed how we analyse online content, yet they also make deceptive content cheaper to produce and harder to spot. This talk presents a data-centric, efficiency-oriented approach to detecting information disorder, asking not only how well lightweight detectors perform, but which of their components actually matter. First, a survey and a multilingual analysis of English, Indonesian and Polish corpora show that detection robustness depends on dataset quality, topical composition and temporal relevance at least as much as on model capacity. Second, benchmarking studies show that transformers achieve the highest accuracy at roughly 200 times the parameter cost. Graph Neural Networks built on semantically grounded graphs outperform non-graph baselines in all 56 matched comparisons, which points to graph construction as the decisive factor. Finally, a lightweight clickbait detection framework combining compressed semantic embeddings with stylistic features reaches F1 scores of 0.84–0.86. Ablation and redundancy analyses reveal that stylistic features become redundant under strong encoders but recover part of the lost performance when cheaper representations are used. The central lesson is that the representation, rather than the model, drives detection performance.

MSc Filip Kucia (WUT): *When Generative AI Judges—and Is Judged: Evaluation in the Era of Information Overload*

Generative AI can now produce more models, benchmarks, prompts, and evaluation data than ever before — but more information does not necessarily mean better evaluation. This talk presents two studies addressing this problem from complementary perspectives. The first examines large language models as automated essay graders. We show that their judgments diverge from human raters in systematic ways, and that providing more detailed scoring instructions does not consistently improve evaluation: for fine-grained analytic scoring, concise prompts often perform better. The second study examines how retrieval-augmented generation systems themselves are evaluated. Synthetic benchmarks differ substantially from authentic user queries in length, intent distribution, source coverage, and evaluability; relying on them alone can therefore lead to misleading performance estimates and suboptimal architectural choices. Together, the studies suggest a broader lesson for GenAI evaluation in the era of information overload: more evaluation information is not automatically better. Reliable evaluation requires understanding systematic bias, calibration, benchmark construction, and the behaviour of real users. I will also briefly discuss ongoing work on simulated patients for clinical education and collaborations developed through OMINO secondments in Glasgow and Singapore.

Prof. Ingo Frommholz (MU): *"Fake Science" and Overcoming Information Overload in Academia*

Scientific communication is experiencing unprecedented growth, with publication volumes increasing at a scale that overwhelms researchers' capacity to process and evaluate information. This information overload (IOL) is not only a byproduct of legitimate scholarly activity but is increasingly driven by low-quality and even fraudulent content. The rise of AI-accelerated publishing, paper mills, tortured phrases, and other forms of "fake science" intensifies this problem, creating massive noise and undermining the reliability of academic information systems.
How can we cope with this information overload? Information Retrieval (IR) with its aim to provide users with relevant information effectively, is one of the first ports of call when it comes to mitigating IOL. For the IR community, IOL in academia poses both critical challenges and unique opportunities. On the one hand, information overload and quality degradation need to be addressed more directly by models that, traditionally, are mainly considering topical relevance. On the other hand, advances in AI, NLP, and bibliometric-enhanced IR offer promising directions for filtering, ranking, and contextualising scholarly information. In this talk, we will examine the evolving problem of "fake science" and its role in driving information overload. We will outline recent developments in scholarly information access in the context of the OMINO project, highlight open research problems — from detecting low-quality and fraudulent content to designing veracity-aware retrieval and recommendation models — and discuss how IR research can contribute to ensuring that high-quality knowledge remains discoverable, trustworthy, and actionable in an era of overwhelming information abundance.

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