Artificial Intelligence and Digital Innovation

Symposium at the *School of Management*, University of St. Gallen

Tuesday, March 5 2024, 09-12:30 @ SQUARE, HSG

The symposium will discuss different aspects of Artificial Intelligence and Digital Innovation. It will include talks by internationally renowned researchers, and an open audience discussion to jointly explore opportunities, and future research avenues for AI research in Information Systems, Organization Studies and Management Science.

Research Talks

'Ensuring Ethical AI: Guardrails without a Human in the Loop'

Nicholas Berente, *University of Notre Dame*

'Regulatory Responses to the AI Revolution: Technology Neutrality Revisited'

Stefan Seidel, *University of Cologne*

'Being Creative Together: An Ensemble Approach to Human-AI Collaboration'

Vivianna Fang He, *University of St. Gallen*

'Hybrid Creativity: How Artificial Intelligence Can Defy or Reinforce Human Creative Performance'

Ivo Blohm, *University of St. Gallen*

For registration, please contact:
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University of St.Gallen
Institute of Information Management

Abstracts and Speaker Info

Nicholas Berente, *University of Notre Dame, US*
Ensuring Ethical AI: Guardrails without a Human in the Loop'

Organizations are increasingly seeking to develop and implement artificial intelligence technologies responsibly. Many of the prevailing approaches make the assumption that humans involved can help to keep artificial intelligence from harmful action and many of existing solutions involve technical and human-centered solutions. Organizations generate principles, include humans in the loop, and design nudges for those humans. But do these approaches work? In this presentation, I point to conceptual and empirical problems with many of the prevailing approaches, and instead offer a pragmatist, procedural approach to dealing with ethical issues and artificial intelligence. I further present a study on the effectiveness of cognitive processing in support of moral decision making.

Nick Berente is Professor of IT, Analytics, and Operations at the University of Notre Dame's Mendoza College of Business. He studies digital innovations like artificial intelligence technologies and their organizational, institutional, and ethical implications. He teaches courses on Strategic Business Technology and is Faculty Director of Notre Dame's iNDustry Labs, Director of the GAMA Lab, and affiliated faculty in Notre Dame's Lucy Family Institute for Data & Society and also Notre Dame's Technology Ethics Center. Prof. Berente received his PhD from Case Western Reserve University, conducted postdoctoral studies at the University of Michigan, and was previously faculty at the University of Georgia. He was an entrepreneur prior to his academic career, founding two technology companies. He is the principal investigator for a number of U.S. National Science Foundation projects and has won multiple awards for his teaching and his research. Prof. Berente is a senior editor for MIS Quarterly *and for* Information and Organization.

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Abstracts and Speaker Info

Stefan Seidel, *University of Cologne*
'Regulatory Responses to the AI Revolution: Technology Neutrality Revisited'

Regulating artificial intelligence (AI) needs to be prospective but its prospects only become known over time. This issue became evident during the development of the EU AI Act, as generative AI burst onto the scene while the regulatory process was already underway. In principle, technology neutrality—the idea to formulate regulations in such way that they can accommodate future developments and do not discriminate against any specific technology—provides a solution. But can regulations truly remain technology-neutral—and would such neutrality even be desirable? How can one regulate what one does not specify? In this talk, I highlight key conceptual and empirical problems of the concept of technology neutrality in the context of AI. I suggest that emerging technology regulation is an inherently socio-technical problem that involves negotiating the level of technology specificity under consideration of various elements of the contexts of the technology's deployment.

Stefan Seidel is Professor of Information Systems at the University of Cologne. He studies how emerging technologies like artificial intelligence are implicated in organizational and institutional change and innovation. Stefan's work has been published in leading journals such as MIS Quarterly, Information Systems Research, *and* Journal of Management Information Systems. *He is a senior editor for* MIS Quarterly *and holds an honorary professorship in Business Information Systems at the University of Galway in Ireland.*

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Abstracts and Speaker Info

Vivianna Fang He, *University of St. Gallen*
'Being Creative Together: An Ensemble Approach to Human-AI Collaboration'

Recent developments in deep learning algorithms have enabled generative AI (GAI) to produce content across various modalities that is indistinguishable from, or even superior to, human output, challenging the long-held belief that creativity is a human prerogative. While specialization between humans and AI has enhanced efficiency in various forms of knowledge work, such division of labor in creative tasks could lead to decay in human creativity. We therefore investigate "ensemble" as an alternative form of human-AI collaboration for creative tasks, which entails an aggregation of outputs from both human and AI agents who each independently tackle the same problem without specialization. Our analysis points to the importance of creating commensurability between the conceptual spaces used by humans and AI in ideation and evaluation for effective ensembling human and AI creativity. From a human-centric perspective that cares about not only joint creative outputs but also preserving and improving human creativity, we discuss the implication of our approach to designing human-AI collaboration.

Vivianna Fang He is an Associate Professor at the School of Management, University of St Gallen (HSG). Prof. He is the founding director of Institute of Responsible Innovation—an interdisciplinary research centre focusing on innovative technologies and organizational forms for the societal good. Her research centres around collaboration in innovation-related contexts, including self-managing teams, R&D projects, and online communities. She publishes in leading academic journals such as Natural Reviews Drug Discovery, Strategic Management Journal, Organization Science, Information Systems Review, *and* Academy of Management Annuals. *Her research has won competitive grants from organisations such as the Swiss National Science Foundation. Vivianna earned her PhD in Management from the George Washington University (Washington, D.C.) and worked at ETH Zurich and ESSEC Business School (Paris) prior to joining University of St. Gallen.*

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Abstracts and Speaker Info

Ivo Blohm, *University of St. Gallen*
'Hybrid Creativity: How Artificial Intelligence Can Defy or Reinforce Human Creative Performance'

Creativity is a crucial factor in developing innovation and prosperity. While creativity is originally a trait attributed to humans, novel technological affordances in (generative) artificial intelligence have questioned this notion. These advances have paved the way for approaches of hybrid creativity, in which humans and machines interact in novel ways that can improve joint creative performance. However, this novel class of creativity interventions might not only help overcome human biases in creativity (e.g., cognitive fixation) but might also be harmful to individual creative performance (e.g. crowding out motivation). By combining the design of novel approaches to hybrid creativity and behavioral research, we strive to identify how AI can support human creativity throughout the phases of idea generation, idea development, and idea evaluation.

Ivo Blohm is an Associate Professor of Information Systems and Business Analytics and a Director at the University of St. Gallen's Institute of Information Management where he leads various publicly and industry-funded projects. Ivo researches how organizations can leverage business analytics, data science, and AI with (crowdsourced) data from digital platforms in order to improve decision-making, collaboration, and innovation. He received a doctorate in information systems research from Technische Universität München. His research has been published in leading journals such as Harvard Business Review, Information Systems Research, Journal of Management Information Systems, or Entrepreneurship Theory and Practice.

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