

# SIRA Brown Bag Talk



**Title:** Decision-Making in the Age of AI: The Role of Interactive Visual Data Analytics  
**Speaker:** Jürgen Bernard (University of Zurich)  
**Date:** Friday March 28, 2025 12:00–13:00 CET  
**Place:** Online – <https://uzh.zoom.us/j/64841027306?pwd=T8cVfpel2xRNQeUttvT7iff6Ppl8vb.1>

## Abstract

This talk explores the world of data-driven decision-making—a process rooted in data, controlled by humans, and supported by AI models.

In the conceptual part, I will examine these three key entities (human, models, data), discussing their roles, commonalities, and differences, as well as their combined strengths when meaningfully orchestrated. This section concludes with the introduction of my EEE Framework—Exploration, Explanation, and Externalization—which highlights data exploration, model explanation, and the externalization of human knowledge and preferences as essential components of modern human-AI collaboration.

In the practical part, I will showcase real-world applications of data-driven decision-making and present interactive visual data analysis solutions designed to support stakeholders in this process. The audience will be invited to vote on case studies from my portfolio, spanning industry and engineering, healthcare and mobile health, digital libraries and humanities, finance and portfolio management, as well as sustainability and the UN Sustainable Development Goals (SDGs).

## Bio



JÜRGEN BERNARD is an Assistant Professor of Computer Science at the University of Zurich (UZH) and associated with the Digital Society Initiative (DSI), Zurich. He is leading the Interactive Visual Data Analysis (IVDA) Group.

He studied Computer Science with focus on Computer Graphics at TU Darmstadt, where he completed his diploma thesis in 2009 on visual-interactive cluster analysis using neural networks. He received his PhD Degree in 2015 on “Exploratory Search in Time-Oriented Primary Data” while at Fraunhofer IGD. In 2016, he became a PostDoc researcher at TU Darmstadt at Interactive Graphics Systems Group, where he led the Visual-Interactive Machine Learning Group. In 2019, he joined the University of British Columbia, Vancouver, Canada as a Postdoctoral Research Fellow, where he joined the InfoVis group, led by Professor Tamara Munzner. For his contributions in visualization research, Jürgen was recently awarded the EuroVis Young Researcher Award (2021) and the Eurographics Young Researcher Award (2022).