

# Distinguished Lecture of the Mannheim Center for Data Science



UNIVERSITY  
OF MANNHEIM  
Mannheim Center  
for Data Science

## MEEYOUNG CHA

is an associate professor in the School of Computing at Korea Advanced Institute of Science and Technology (KAIST) and an adjunct professor in the Department of Brain and Cognitive Sciences and Graduate School of Culture Technology. Her research on misinformation, poverty mapping, fraud detection, and long-tail content has received over 20,000 citations and best paper awards. As of December 2023, Meeyoung has been affiliated as a Scientific Director of the Max Planck Institute for Security and Privacy (MPI-SP) in Bochum, Germany.



### Making Discoveries for Humanity & Society with Data Science

With exponentially increasing data and computing power, we are making important discoveries for humanity and society at a faster pace. In this talk, I'd like to share my journey into data science on two pressing and socially significant topics. First is sustainable development. Data-driven measurements are critical for making decisions. Unfortunately, many of the world's poorest countries continue to lack accurate data for basic statistics like population density and wealth. I will introduce new methods for inferring economic development from high-resolution daytime satellite imagery using computer vision. In particular, I will talk about our team's effort to create the first-ever 1 km<sup>2</sup> economic map of North Korea, Nepal, and Cambodia.

Second is social dynamics. Emerging technologies like social media, chatbots, and AI systems are changing how humans interact with one another and with information. This can lead to negative outcomes such as misinformation and hate speech. However, this can also lead to positive changes such as democratizing opportunities and broadening mental support. In this talk, I will introduce our group's effort to debunk false rumors during COVID-19, by sending facts before rumors to 50,000 individuals in 151 countries. I will also talk about how data can be used to better understand culture (e.g., visualizing sneaker designs over 22 years) and social needs (e.g., how users interacted with AI chatbots during the pandemic). I'll conclude the talk by discussing other exciting opportunities for using data science and AI for social impact.

- Where? Room ~~0151~~ O142 (Engelhorn lecture hall) at the University of Mannheim
- When? April 9, 2024 at 12 noon
- Moderator: Prof. Markus Strohmaier
- Admission is free. All interested parties are cordially invited.