

# Data Protection in Data-Driven IR Systems

Asia J. Biega<sup>1</sup>

<sup>1</sup>*Max Planck Institute for Security and Privacy, Bochum, Germany*

## Abstract

Modern IR systems are characterized by extensive personal data collection, despite increasing societal costs of such practices. To prevent harms, data protection regulations specify several principles for respectfully processing user data, such as purpose limitation, data minimization, or consent. Yet, practical implementations of these principles leave much to be desired. This talk will delve into the computational and human factors that contribute to such lax implementations, and examine potential improvements.

## Speaker Bio

Asia J. Biega is a computer scientist and tenure-track faculty member at the Max Planck Institute for Security and Privacy, where she leads the Responsible Computing group. Her research lies at the intersection of computing and society, focusing on responsible computing, data protection, governance, and digital well-being in data-driven systems. Asia collaborates with experts from law, philosophy, and social sciences, and her work has earned multiple prestigious awards, including the Council of Europe's Rodota Award. She has also worked with major tech companies like Microsoft and Google, and frequently advises policymakers, industry leaders, and NGOs on issues related to AI and data protection.

---

*IIR 2024: 14th Italian Information Retrieval Workshop*

✉ [asia.biega@mpi-sp.org](mailto:asia.biega@mpi-sp.org) (A. J. Biega)

🆔 0000-0001-8083-0976 (A. J. Biega)



© 2024 Copyright for this paper by its authors. Use permitted under Creative Commons License Attribution 4.0 International (CC BY 4.0).