L3S
Trustworthy AI
& Digital Transformation

Reporting on Real-World Datasets and Packages for Causal AI Research

A Presentation by Dren Fazlija

Summary

- We analyzed experimental setups of 84 Causal AI papers
  - Topics: Interpretability, Fairness, Robustness, Privacy, Safety, Auditing, Healthcare
  - Researchers utilized 98 real-world public datasets
- Key Observation: Existing work on Causal AI does not utilize established resources for their domain
  - Neither for causal reasoning tasks nor for comparisons to SOTA non-causal methods
- We outline relevant tools for each topic and give reasons for this disparity
- This report directly builds upon our recent literature review of Causal AI methods
  Niloy Ganguly, Dren Fazlija, Maryam Badar, Marco Fisichella, Sandipan Sikdar, Johanna Schrader, Jonas Wallat, Koustav Rudra, Manolis Koubarakis, Gourab K. Patro, Wadhah Zai El Amri, Wolfgang Nejdl: A Review of the Role of Causality in Developing Trustworthy AI Systems. Feb 2023, https://arxiv.org/abs/2302.06975
- Check out our GitHub Repository, where we provide any related material to our survey
  - All of our previous presentations (including this one!)
  - An online version of our appendix presenting the analyzed datasets and some relevant tools & packages
  - https://github.com/L3S/causality-for-trustworthy-ai/
  - Or scan the QR-Code in the top right corner!

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