

Data Science for a Better World: Building a Safer Digital Environment

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Digital platforms have become critical environments where information spreads, collective behaviours form, and societal risks can escalate rapidly and endogenously. This talk examines how statistics can contribute to a safer, more predictable, and more trusted online world. Several risks that arise naturally from technological features of today's digital ecosystems, such as end-to-end AI recommender systems, AI companions, age-verification challenges, online fraud, and other emerging harms, can be better understood and mitigated through robust data science pipelines. Europe's Digital Services Act, particularly Article 40(12), now guarantees controlled data access for vetted researchers. This provision represents a major opportunity for the community of social scientist and statisticians: for the first time, independent scholars can systematically study platform dynamics, audit algorithmic systems, and generate evidence that contributes directly to safer, more transparent, and accountable digital environments. Therefore, this talk will also discuss how this new opportunity enables scientists to play a more active and impactful role in improving online safety. Overall, the talk presents a unified vision: data science, supported by responsible governance and meaningful data access, provides essential capabilities for building digital ecosystems that are safer, more predictable, and worthy of public trust.

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