

RESEARCH SEMINAR PRESENTATION

The Limitations of Data, Machine Learning & Us



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ABSTRACT

Machine learning (ML), particularly deep learning, is being used everywhere. However, not always is used well, ethically and/or scientifically. In this talk, we first do a deep dive in the limitations of supervised ML and data, its key input. We cover small data, datification, all types of biases, predictive optimization issues, evaluating success instead of harm, and pseudoscience, among other problems. The second part is about our own limitations using ML, including different types of human incompetence: cognitive biases, unethical applications, no administrative competence, misinformation, and the impact on mental health. In the final part we discuss regulation on the use of AI and the responsible AI principles that can mitigate the problems outlined above.

BIO

Ricardo Baeza-Yates is the Founding Director of the AI Institute at the Barcelona Supercomputing Center. Before, he was Director of Research at the Institute for Experiential AI at Northeastern University (2021-25), CTO of NTENT (2016-20) and VP of Research at Yahoo Labs (2006-16), first based in Barcelona, Spain, and later in Sunnyvale, California. He is co-author of the best-seller Modern Information Retrieval textbook published by Addison-Wesley in 1999 and 2011 (2nd ed), that won the ASIST 2012 Book of the Year award. In 2009 he was elevated to ACM Fellow and in 2011 to IEEE Fellow. He has won national scientific awards in Chile and Spain, among other accolades and distinctions. He obtained a Ph.D. in CS from the University of Waterloo, Canada, and his areas of expertise are responsible AI, bias in algorithmic systems, web search and data mining plus data science and algorithms in general

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**10:30 AM - Kigali,
Rwanda Time**

**MODE:
Physical**

**Venue:
UR, College of Science and Technology**

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