5 Questions to Ask about AI in Risk Management



Global Risk Management Day 2022 March 10, 2022

Prof Dr Josef Oehmen

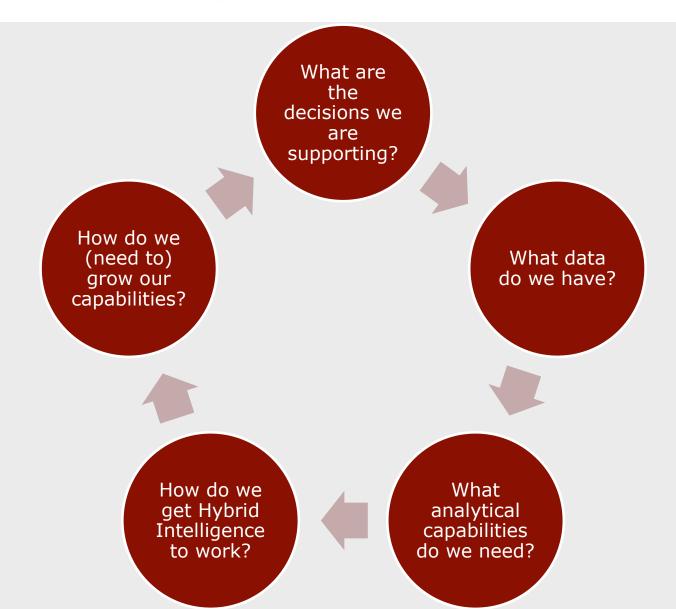
Engineering Systems Design & Engineering Systems RiskLab

Technical University of Denmark



Bottom Line Up Front: Getting AI to work (or not) in Risk Management – 5 Simple Questions





Where this stuff comes from: Reading, Research, and a sprinkling personal opinion

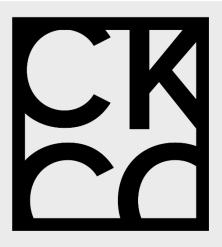


Willumsen, Pelle (2019): *Lean Risk Management in Engineering Projects.* DTU PhD Thesis

Simsek, Osman Furkan (2021): *Machine learning applications in project risk management*. DTU Master
Thesis

Olt, Simon Christian (2021): *Machine Learning Applications for Cost Risk Management in the Construction Industry*. DTU Master Thesis

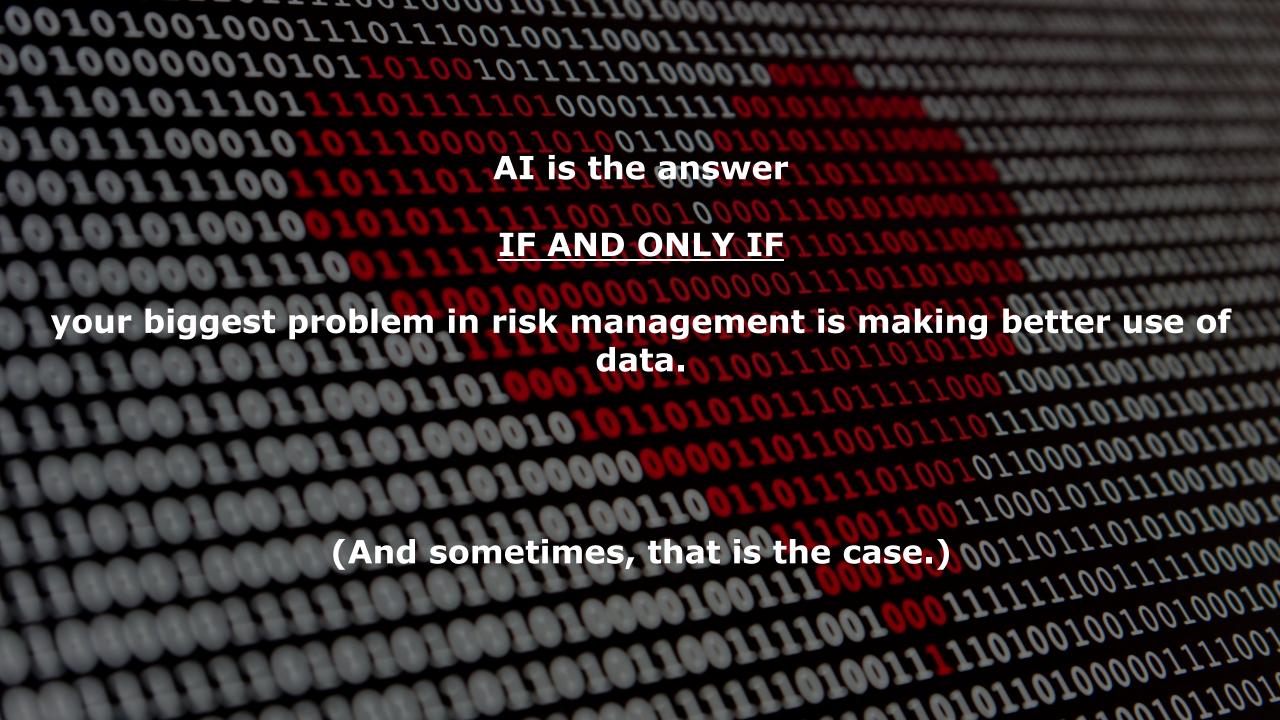
Mikkelsen, Laurids (2022): *A hybrid intelligence approach to decision support in project risk management.* DTU Master Thesis (This is where I stole most of the content from.)



https://www.ckogco.dk/



https://bygst.dk/



Question 1: What is the problem we are solving?



Who is the stakeholder, i.e. your customer?



What is the official problem?



What is the REAL problem?



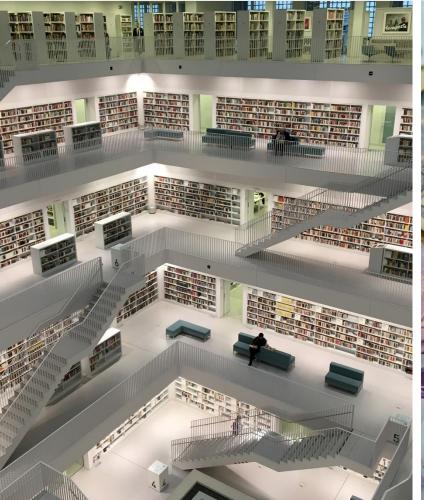
Question 2: What data do we use?



What data do we have THAT IS ACTUALLY USABLE?



What data do we need?



How much are we willing to spend?



Question 3: What analytical capability do we need? (Aka: What on earth is AI, or Machine Learning?)













Descriptive

Diagnostic

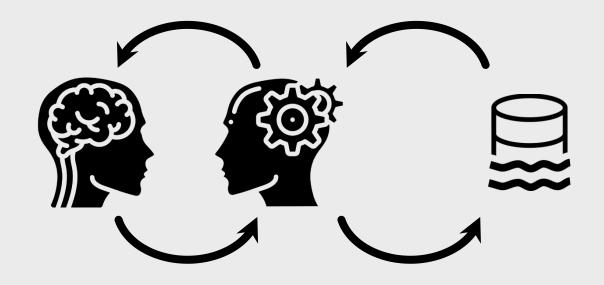
Predictive

Prescriptive

Cognitive

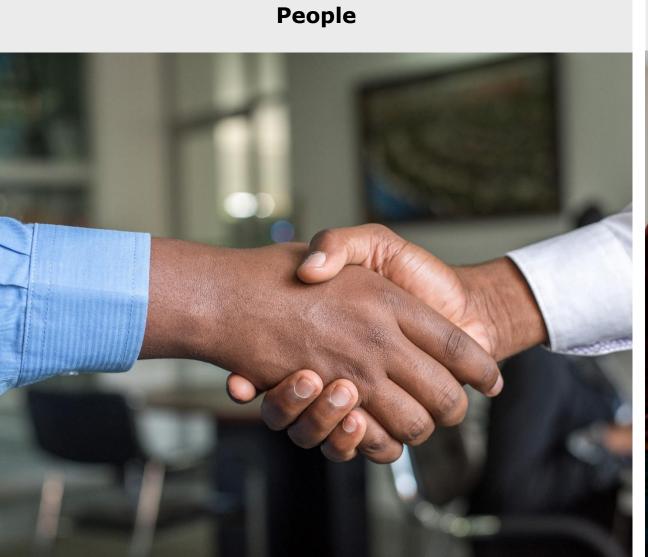
Question 4: How do we get Hybrid Intelligence to work? Delivering Interpretability & Interactivity





Question 5: What is our capability gap, and how do we close it







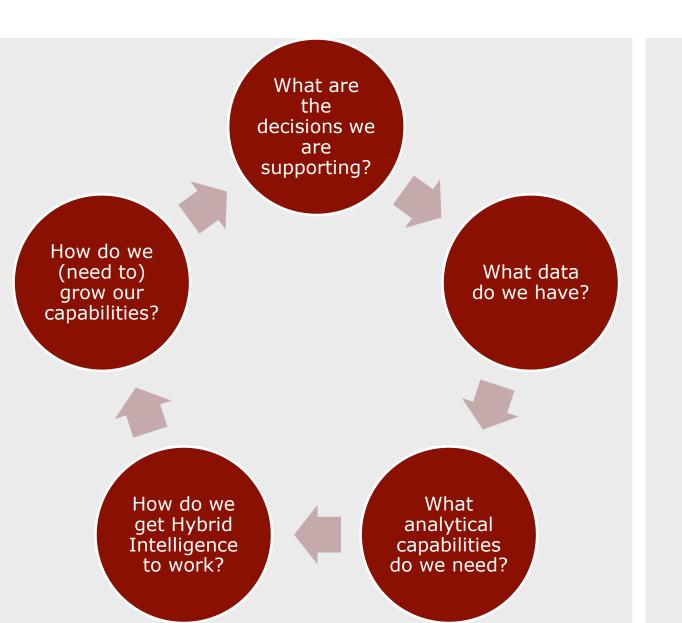
Getting it done – Understanding where you are in your journey





Thank you!





Prof Dr Josef Oehmen

DTU Management

jooehm@dtu.dk

http://risklab.dtu.dk