Artificial intelligence (AI)

What is it?

Artificial intelligence (AI) consists for a computer program to reproduce one of the capabilities of the human intellect, based on the analysis of a large volume of data ("big data"). "weak" AI can duplicate specific tasks, such as recognizing an object on an image. "strong" AI would reproduce human consciousness: it will not exist for a long time.

Companies to assist you

DataGenius, mfglabs, Datalyo, nabla.com, Sicara, Quantmetry

Influencers to follow

François Chollet, Benedict Evans, Zeynep Tufekci, Azeem Azhar, Cathy O'Neil, Gilles Babinet

3 companies leveraging AI

Artefact - this marketing analytics firm uses AI to better analyze customer data and develop targeted advertising campaigns.

Climate Corp - helps to predict how weather changes affect crops, which allows finely modulating fertilizer consumption.

Stitchfix - this online clothing sales company uses many techniques to 1) optimize their stocks 2) make relevant suggestions to customers.

What business impact?

- Optimization (internal processes): replacement of "white-collar workers" such as data-entry clerks and other repetitive administrative tasks. Better control of the manufacturing process (savings in time, defects, waste, maintenance, etc.). Logistics optimization (warehouses, supply chain).
- Innovation (customer value): products can become "smart" thanks to AI: collision detection for a vehicle, taking a picture at the best moment, personalized recommendations, generating original designs, etc.

Resources needed

Organizational resources:
- IT staff with a knowledge and interest for data-related skills (tools, frameworks...)
- business managers able to interface with data scientists

Financial resources:
- licences for software services
- consulting fees for project development and maintenance

Do's and don'ts

Do
- start by modernizing your IS and ERPs to have quality data on which the AI can be exercised.
- proceed by tests and iterations (create POCs before launching on a large scale)

Don't
- be seduced by the "AI buzz" and create expensive gadgets. In many cases, traditional statistical analysis suffices.
- treat AI results as ground truth. AI has biases which need an interdisciplinary team to identify and debias.