

Les opportunités Business apportées par l'IA

Mamy Ratsimbazafy mamy@numforge.co

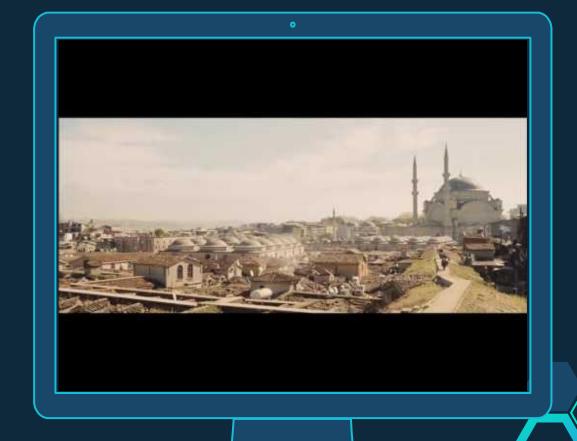






Real-Time Object Detection (2016)

Self-driving cars, smart cities, drone, military, satellite imagery, private and public safety





I am Mamy Ratsimbazafy

I'm a freelance Data Scientist and an Ethereum & Blockchain researcher.

You can contact me at mamy@numforge.co





Key takeaways

- Keywords & Buzzwords
- How is "Artificial Intelligence" used in France?
- Business value and limits





Keywords & Buzzwords

Let's start make sure we talk about the same things



Expert systems

Machine Learning

Neural Network

Structured & Unstructured data

Deep Learning

Data Science



AI in France

We are actually one of the top countries



Top AI country

Professor Laura Alfaro, Harvard Business School. <u>Course slides.</u>

"France already has one of the strongest AI research communities in the world", Mark Zuckerberg

<u>"Google, Facebook target Paris as a center for Al Expansion"</u>, Bloomberg







Robotics (Hardware + Software)





Enterprise











Platforms











Industries









France is AI franceisai.com



Marketing, fashion & Retail



Product

"Jane is 15 times more likely to buy the high-end smartphone that you're promoting today"

How?

- Look-alike (clustering)
- Customer attributes
- Transaction history
- **Product Catalog**
- Campaign history
- Browsing history



vente-privee

Cdiscount





PriceMinister +53%







Product

- Understand your customer and the perceived positioning
- Boost e-commerce sales

How?

Social networks:

Who? How? When?

- Trend detection
- Visual tagging and search.
- Image/look based recommendation











Retail - Daco



Product

- Competition landscape
- Pricing
- Discount strategy
- Stock & predictive demand

- Scraping daily your competitors e-commerce store
- Detecting trends
- Visual recognition of the product
- Understanding the pricing and the positioning











Banking & Insurance



Insurance BNP Paribas Cardif



Product

- Personal insurance
- 90 millions clients in 36 countries

Faster claims challenge:

- €30k prize, 1.5 month
- 2926 data scientists
- Data "à l'aveugle"

"Although these analyses did not reveal the true meaning of the variables, it has discovered some really interesting business patterns which are actually not information from observations in the future.", Sébastien Conort, BNP.





Fraud detection Shift Technology

Shift.

Product

- Fraud detection
- Automation of claims for the end user

How?

- Behavioural & Pattern analysis
- •
- Accuracy comparable to human
- Millions of past claims



Acclaimed by the European Anti-Fraud Association



Healthcare & Pharma



Healthcare - Cardiologs



Product

- Electrocardiogram at scale in any form factor
- Human expert precision
- FDA approved

- Image and time pattern analysis and recognition
- Hundreds of thousands of data points





Pharma - Owkin



Product

- Accelerate drug discovery
- Optimize drug development

- Predict biomarkers
- Predict drug response to help designing clinical trials
- Find similar patients







Legaltech - Doctrine



Product

- The Google of Legal
- Search by court, theme, jurisdiction, company, attorney, date
- Real-time updates
- Business intelligence











Rivière | Avocats | Associés

- Subscribing to French courts and legal ecosystem
- Scrapping the web
- Data science & "natural Language processing





Legaltech - Softlaw



Product

- Automate contract management
- Due diligence & Contractual risk analysis
- Compliance & Regulatory change impact

How?

 Text mining of paper and digital contracts





Business value & limits



Business values & limits

Do: Trends & Patterns

Data science is excellent to detect trends and patterns, but you need data.

Don't: M&A success or failure

No, you can't predict if buying a company will be a success or not, unless your company bought 1000s and you tracked the psychological profile of the acquired companies

Do: Image & Text analysis (Black-box artificial intelligence)

Neural networks are reaching human expertise for image recognition and machine translation in **specific settings**

Don't: Remove the human from the equation

Medecine, driving, art and others have human lives at stake. Use them to help deciding.

"My neural network told there was no need to see a doctor" won't fly before the judge

Do: Explore data science

Any companies has data (marketing, sales, complaints ...), at a certain scale (100k), Excel will makes you lose time if not money.

Don't: Hire only based on technical expertise

A data scientist must understand the business to translate it in a ML problem and uncover actionable insights



Thank you!

I am Mamy Ratsimbazafy

I'm a freelance Data Scientist and an Ethereum & Blockchain researcher.

You can contact me at mamy@numforge.co +33 6 67 85 86 54







Bonus:

Fake Obama speech by a neural network:

<u>https://www.youtube.com/watch?v=dkoi7sZvWiU</u>

Shakespear-like play by a neural network "God save my son": https://www.youtube.com/watch?v=NGW0tKbEfpa

