



# Les opportunités Business apportées par l'IA



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Hub Digital  
**HEC**  
PARIS  
ALUMNI



## Real-Time Object Detection (2016)

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





# Hello!

## I am Mamy Ratsimbazafy

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# Key takeaways

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



A decorative pattern of hexagons in various shades of blue and teal on the left side of the slide. Some hexagons contain icons: a lightbulb, a thumbs up, a smartphone, a magnifying glass, and a gear. A network diagram with a central node and five peripheral nodes is also visible.

1

# Keywords & Buzzwords

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



# Keywords & Buzzwords

Expert systems

Machine Learning

Neural Network

Structured &  
Unstructured data

Deep Learning

Data Science

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2

# AI in France

We are actually one of the top countries



# Top AI country

Professor Laura Alfaro, Harvard Business School. [Course slides.](#)

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

[“Google, Facebook target Paris as a center for AI Expansion”](#), Bloomberg





## Agents

<b>Personal</b> 	<b>Professional</b> 	<b>Platforms / Tools</b> 	<b>Robotics (Hardware + Software)</b> 
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## Enterprise

<b>Security / Fraud</b> 	<b>Marketing / Sales</b> 	<b>Customer support</b> 	<b>Business + Predictive Intelligence</b> 	<b>HR</b> 
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## Platforms

<b>Hardware / Processing</b> 	<b>Big Data / Machine Learning</b> 	<b>Natural Language</b> 	<b>Vision / Image</b> 	<b>Audio</b> 
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## Industries

<b>AdTech</b> 	<b>Insurance</b> 	<b>Healthcare / Pharma</b> 	<b>Retail</b> 
<b>Legal</b> 	<b>Manufacturing / Logistics</b> 		
<b>Agriculture</b> 	<b>City + Infrastructures</b> 		
<b>Transportation</b> 			

France is AI [franceisai.com](http://franceisai.com)

A series of hexagonal icons in various shades of blue and teal are arranged along the left edge of the slide. The icons include a lightbulb, a thumbs-up, a network of nodes, a smartphone, a magnifying glass, a gear, and a speech bubble.

2.1

# Marketing, fashion & Retail



# Marketing – Tinyclues tinyclues

## Product

“Jane is 15 times more likely to buy the high-end smartphone that you’re promoting today”

**Oui** SNCF  
+115%

**PriceMinister** Rakuten group  
+53%

**LACOSTE**   
+151%

**fnac**  
+30%

vente-privee   
**Cdiscount**  
  
**CORSAIR**

## How?

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





# Fashion – Heuritech



## 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

## How?

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



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vente-privee

A cluster of decorative hexagonal icons in various shades of blue and cyan. The icons include a lightbulb, a thumbs-up, a network node, a smartphone, a magnifying glass, a gear, and a speech bubble.

2.2

## Banking & Insurance



# Insurance BNP Paribas Cardif



**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





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2.3

## Healthcare & Pharma



# Healthcare – Cardiologs

**Cardiologs**  
AI Serving Cardiology

## Product

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

## How?

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





# Pharma – Owkin



## Product

- Accelerate drug discovery
- Optimize drug development

## How?


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



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2.4

Legal



# Legaltech – Doctrine



## Product

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

## How?

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



MAIRIE DE PARIS



Rivière | Avocats | Associés





# Legaltech – Softlaw



## Product

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

## How?

- Text mining of paper and digital contracts



A decorative graphic on the left side of the slide. It features a large cyan hexagon in the center containing the number '3'. Surrounding this central hexagon are several smaller hexagons of varying shades of blue and cyan. Some of these smaller hexagons contain white icons: a lightbulb, a thumbs-up, a smartphone, a magnifying glass, a gear, and a speech bubble. There is also a small network-like icon with a central node and five connecting lines.

3

## 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

Medicine, 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!

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# Bonus:

Fake Obama speech by a neural network:

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

Shakespear-like play by a neural network “God save my son”: <https://www.youtube.com/watch?v=NGW0tKbEfpq>

