RETHINKING AI

AI and the Future Business and Society

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Chief AI Officer @ WPP
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@TheSolveEngine

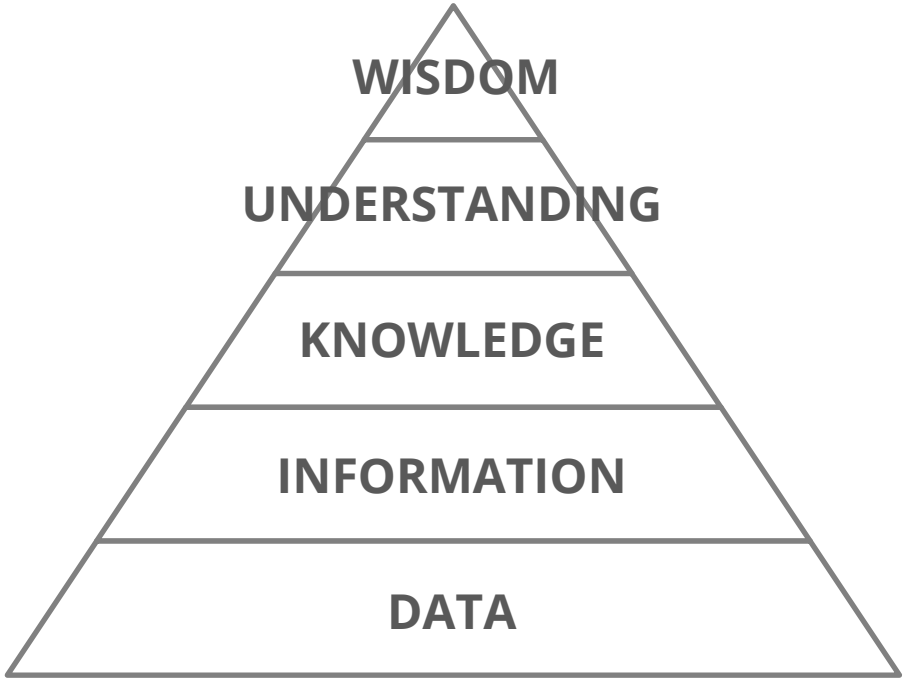
About me

Entrepreneur in Residence @ UCL
Director of Business Analytics MSc
Lecturer in AI and Innovation @ UCL & LSE
Postdoc in Innovation and Technology Transfer
PhD in Artificial Intelligence
MBA Electives London Business School
MSci in Artificial Intelligence

Chief AI Officer @ WPP
CEO @ Satalia
Investor in AI-enabled purposeful companies
Co-founder of the Faculty AI
Advisor to Syntropy, e-Numeracy and others
Kauffman Global Scholar
Startup mentor and speaker

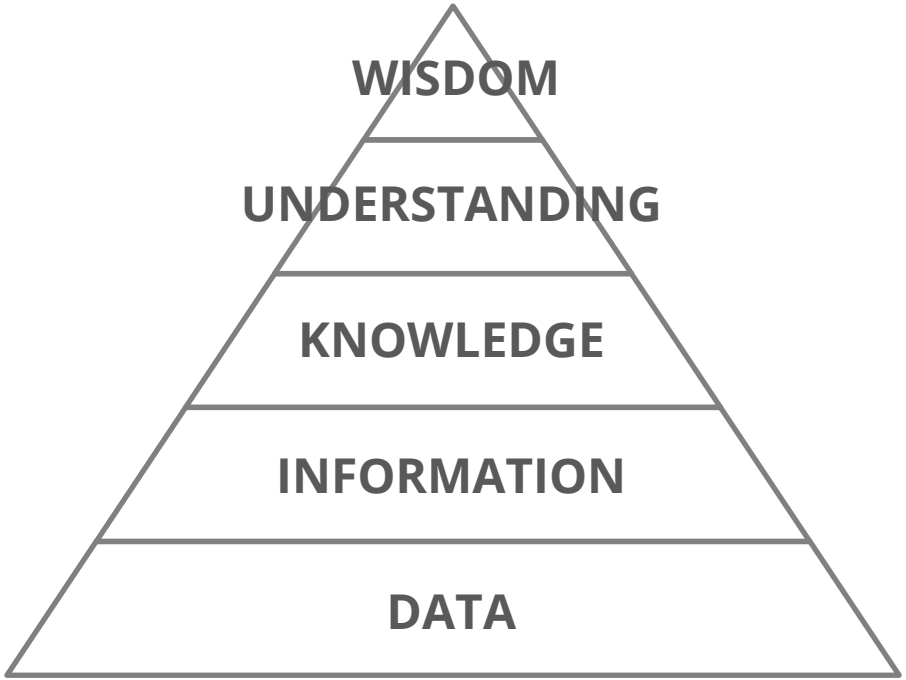
Intelligence

Decision Making



JOHN READ THE LETTER TO MARY

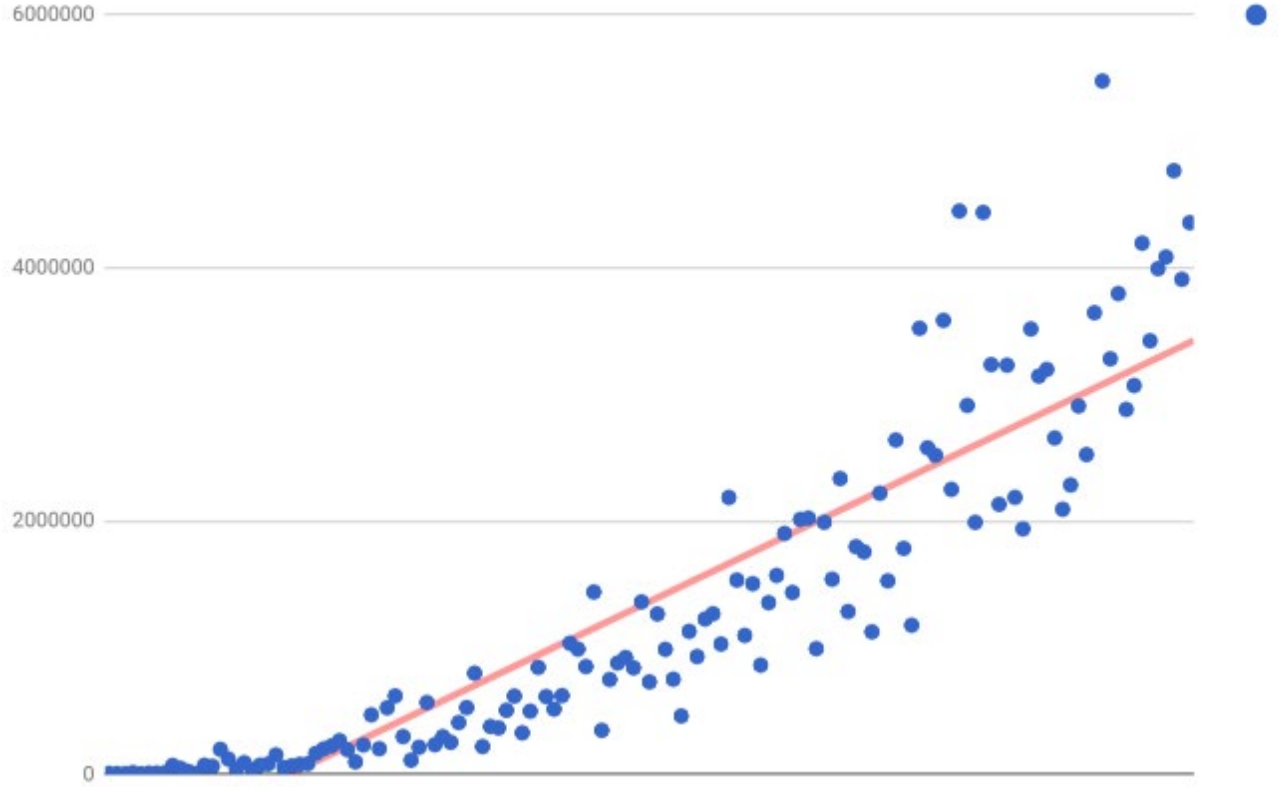
Data Driven Decision Making



= contextualized DATA

= symbols

Prediction



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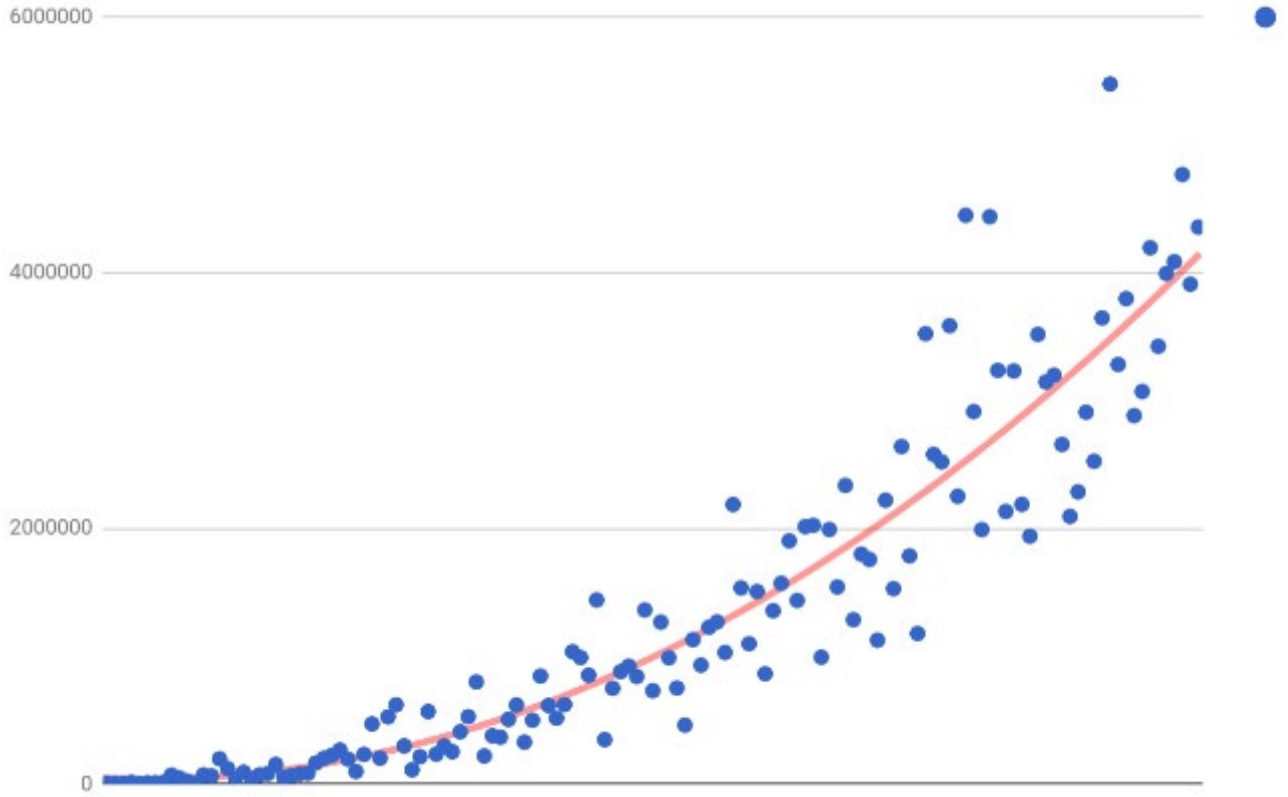

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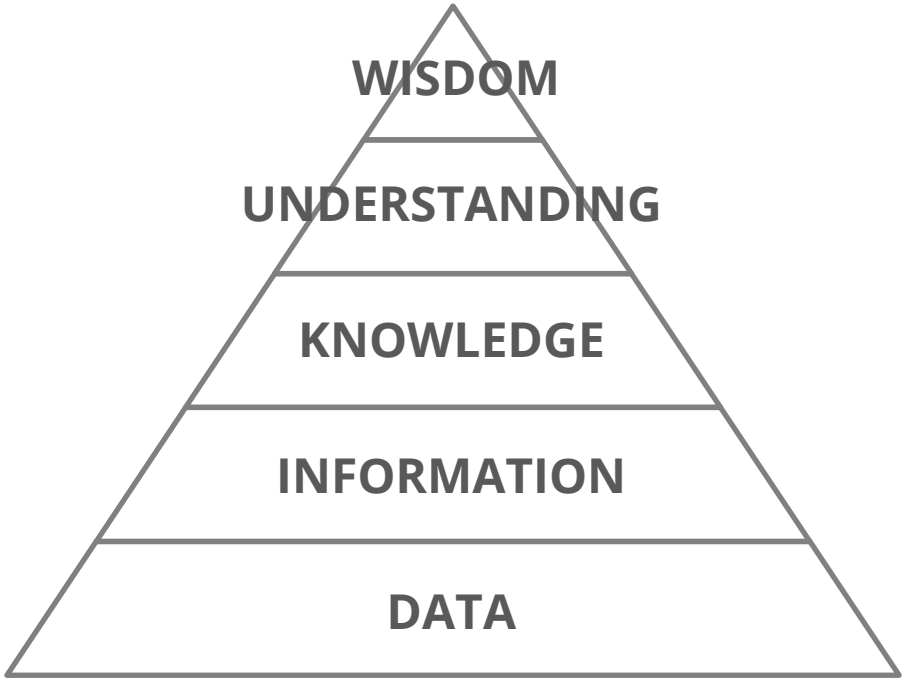

= organised INFORMATION

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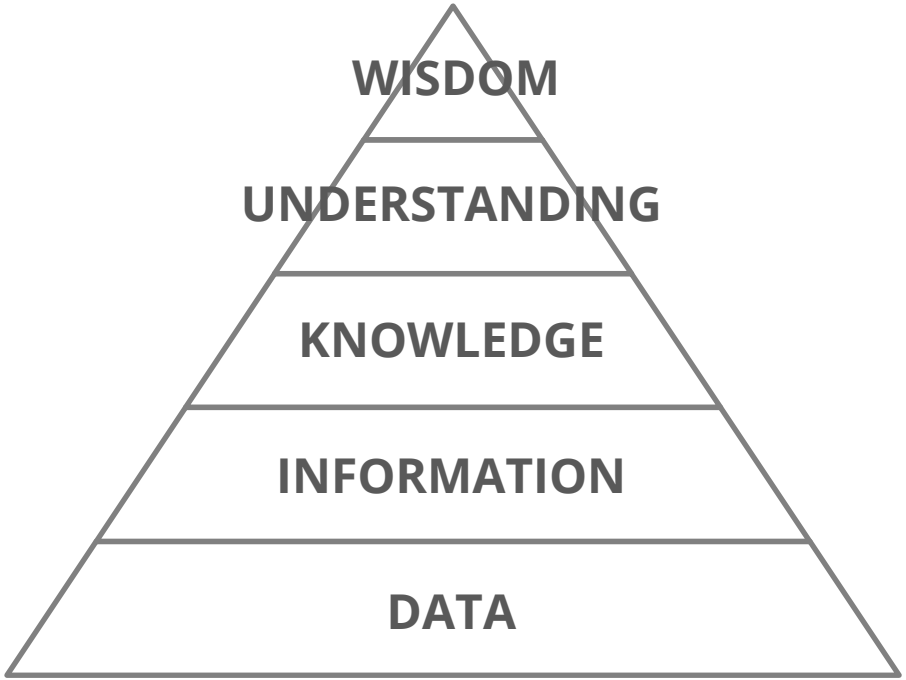

= interpreted KNOWLEDGE

= organised INFORMATION

= contextualized DATA

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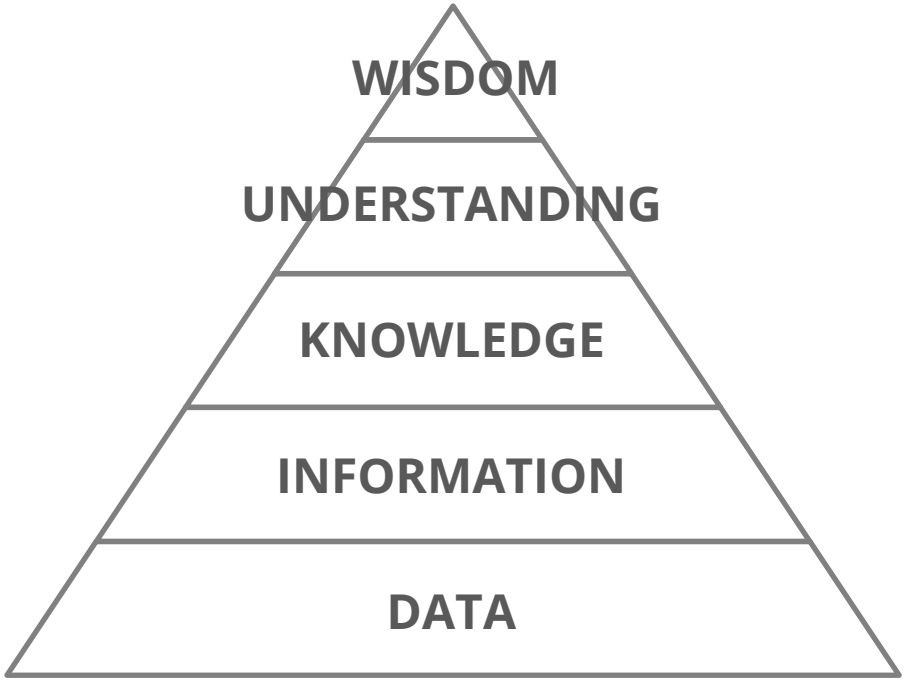
Data Driven Decision Making



= utilised UNDERSTANDING

= interpreted KNOWLEDGE

= organised INFORMATION

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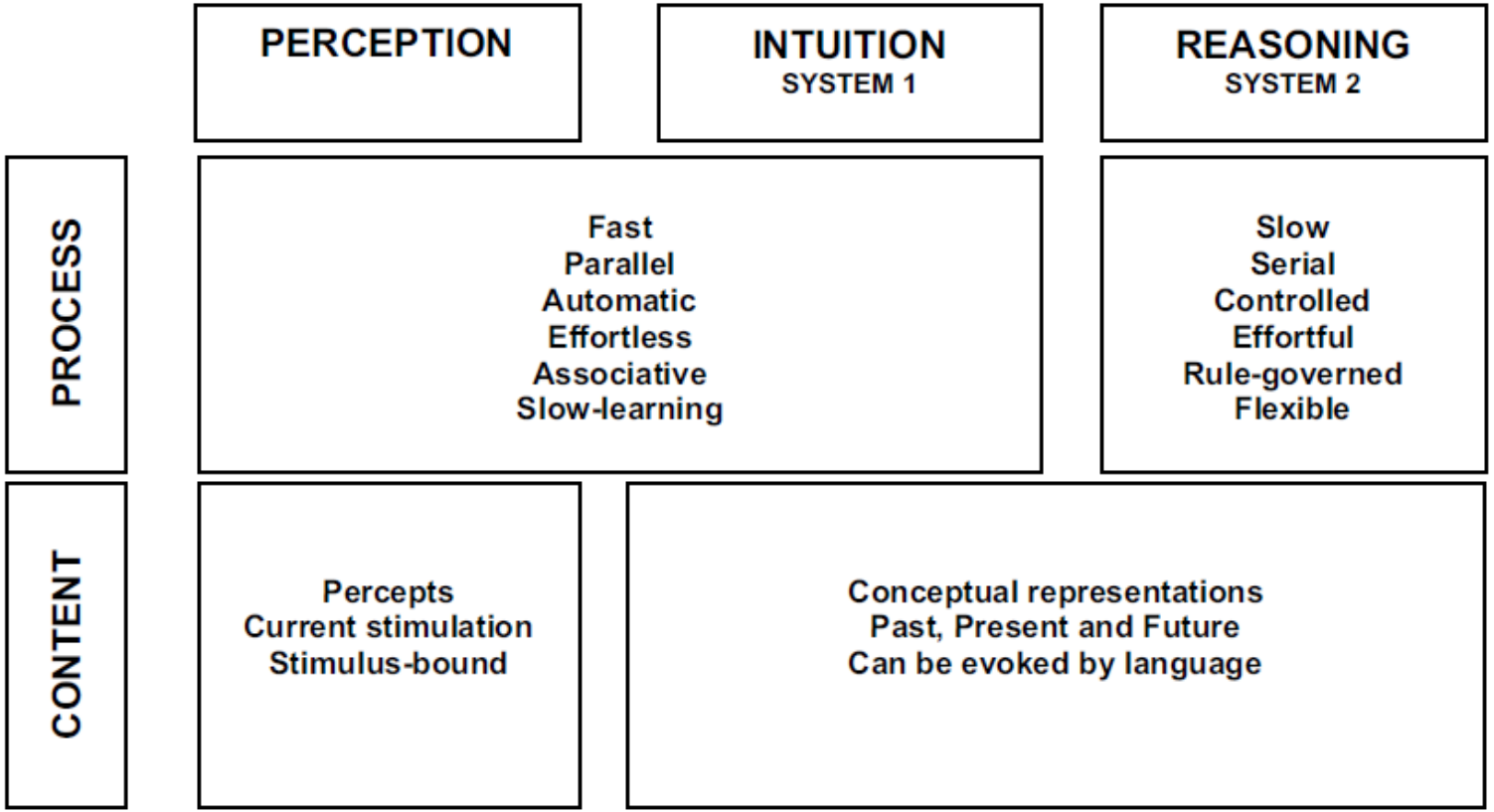
Decision Making



2 x 2

14 x 768

Decision Making

Resource Allocation

RULES

Flying right of walking

Swimming left of walking

Reptiles 2-away from felines

No same colours touching

Tails prefer next to tails

Males prefer near females

Resource Allocation

120

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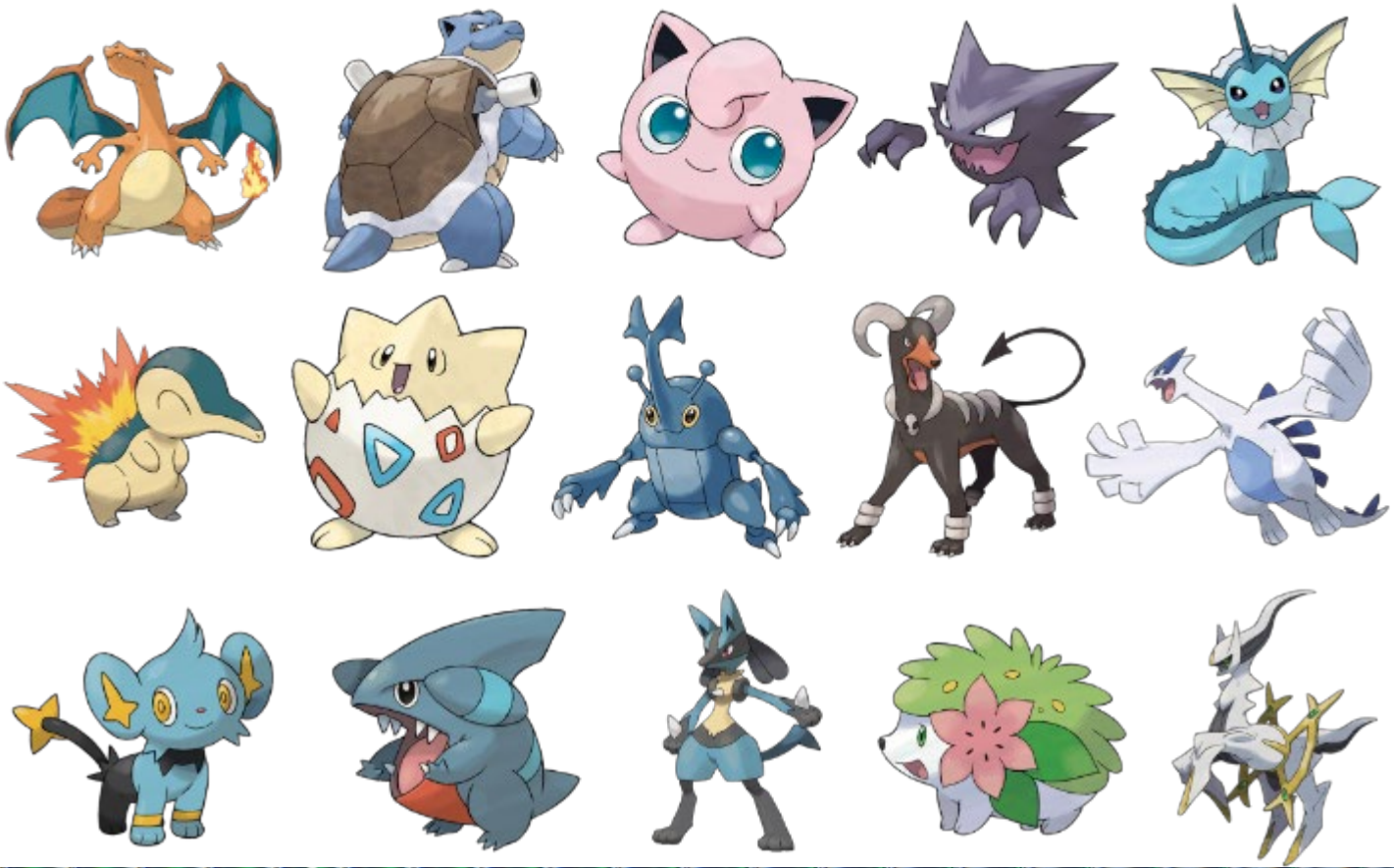

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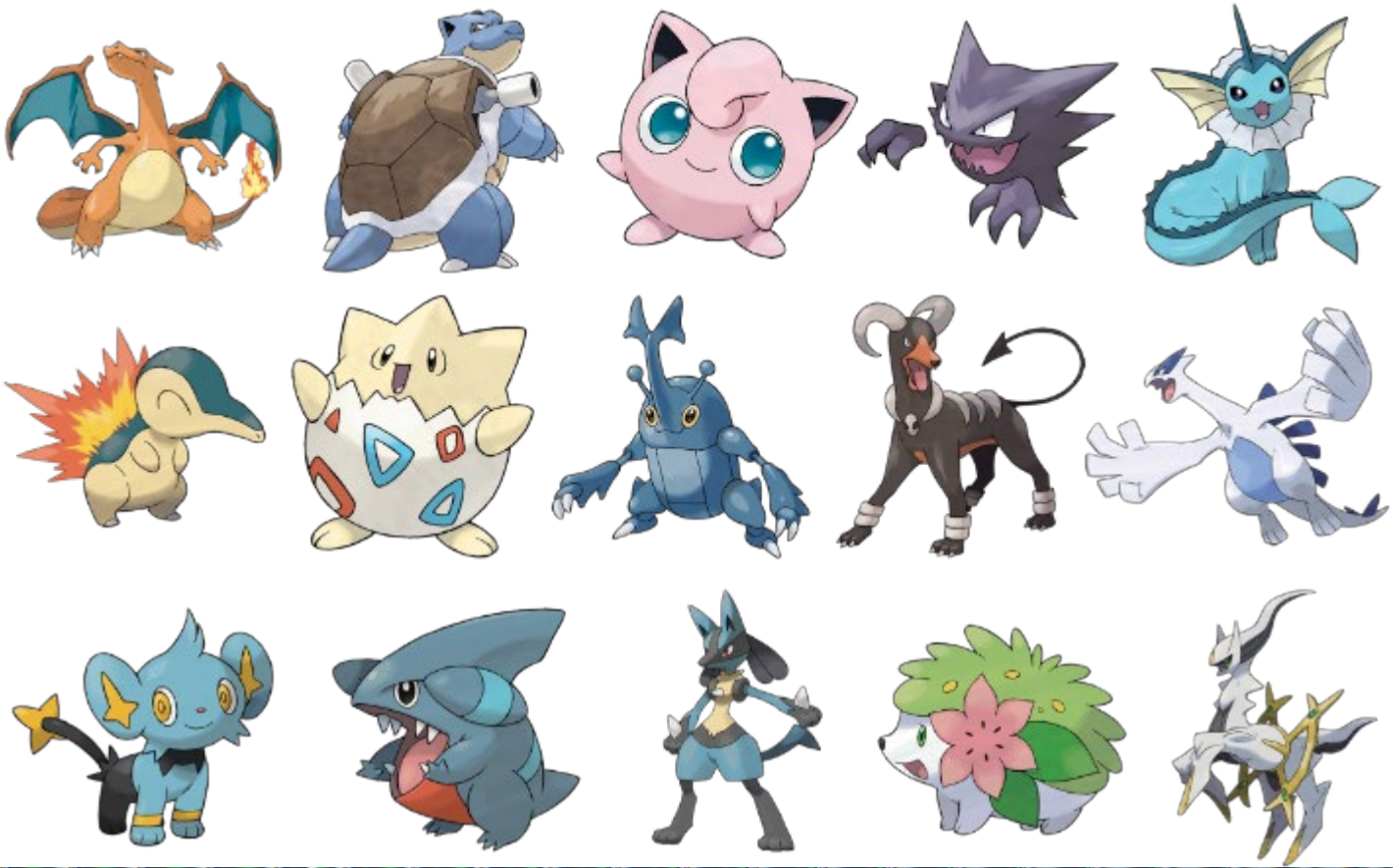

1,307,674,368,000

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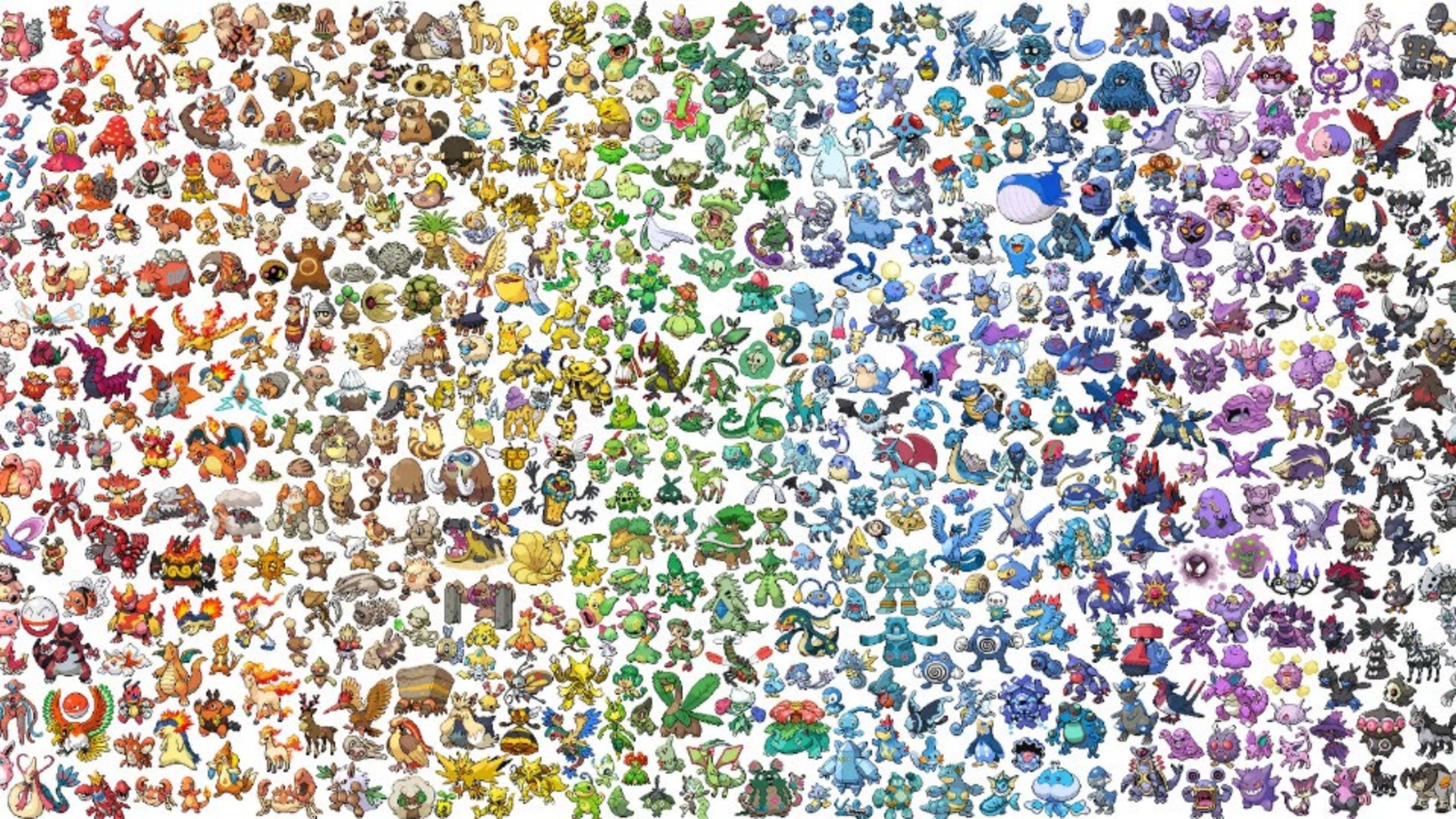
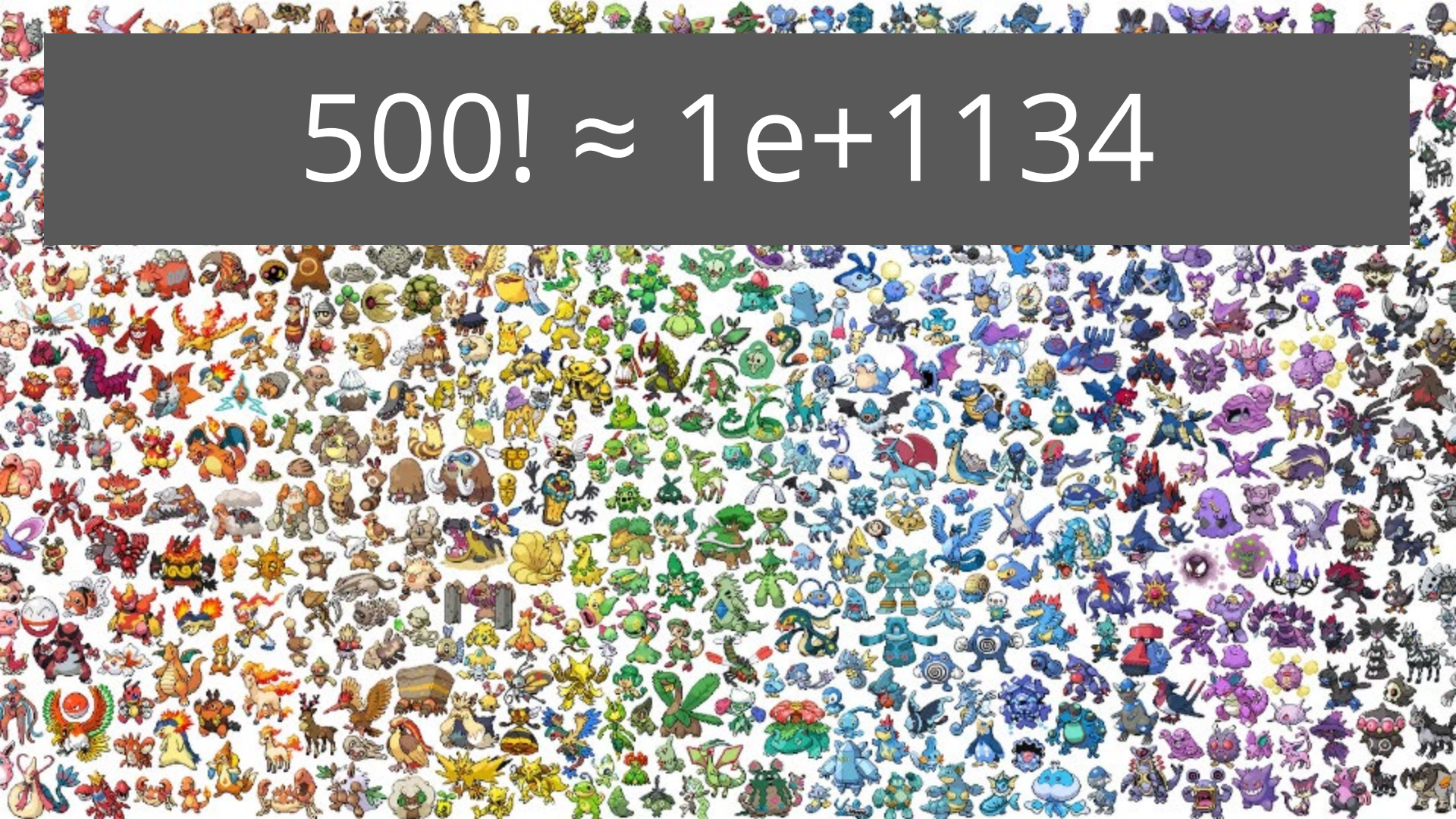


500! ≈ 1e+1134



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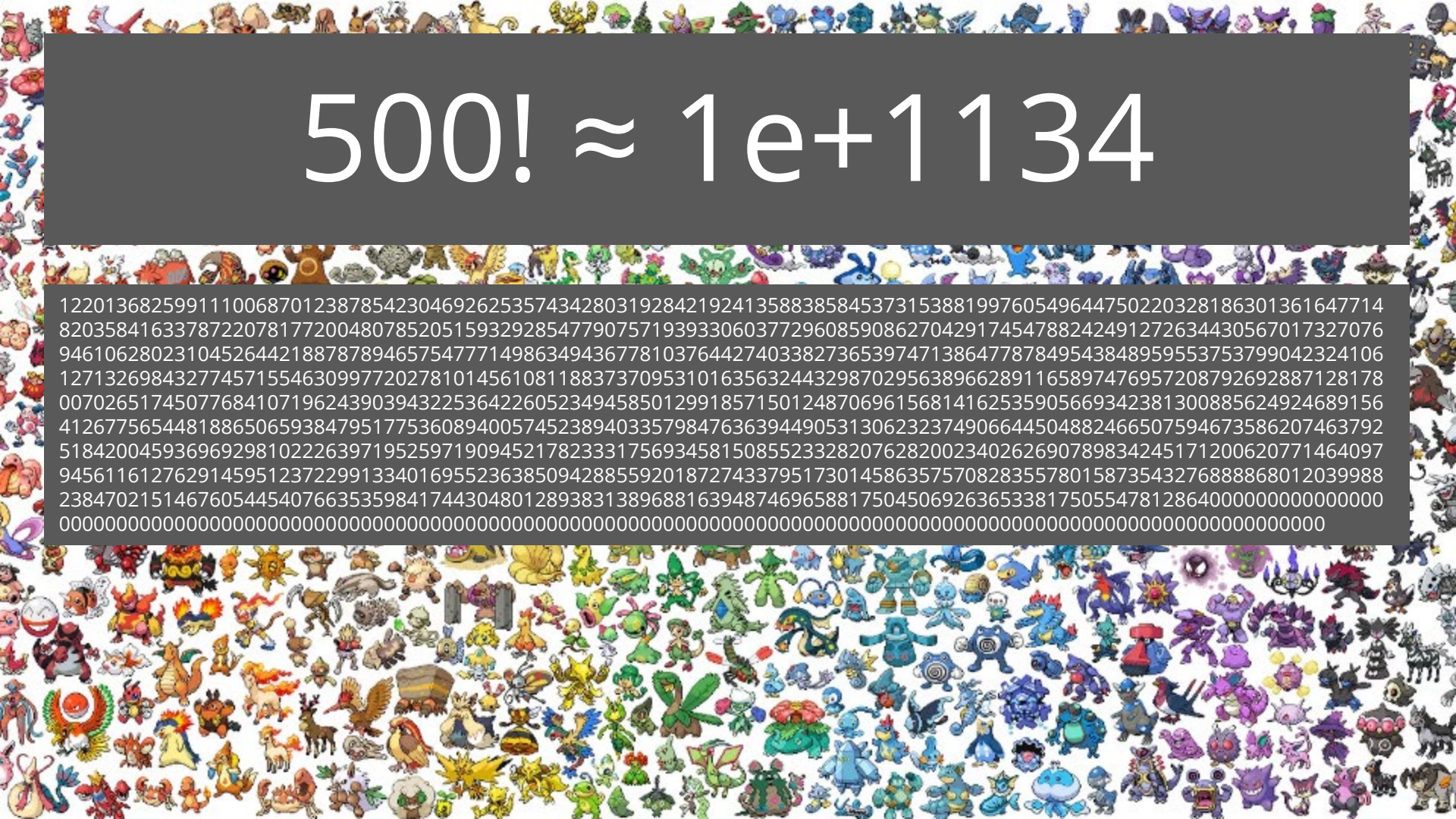

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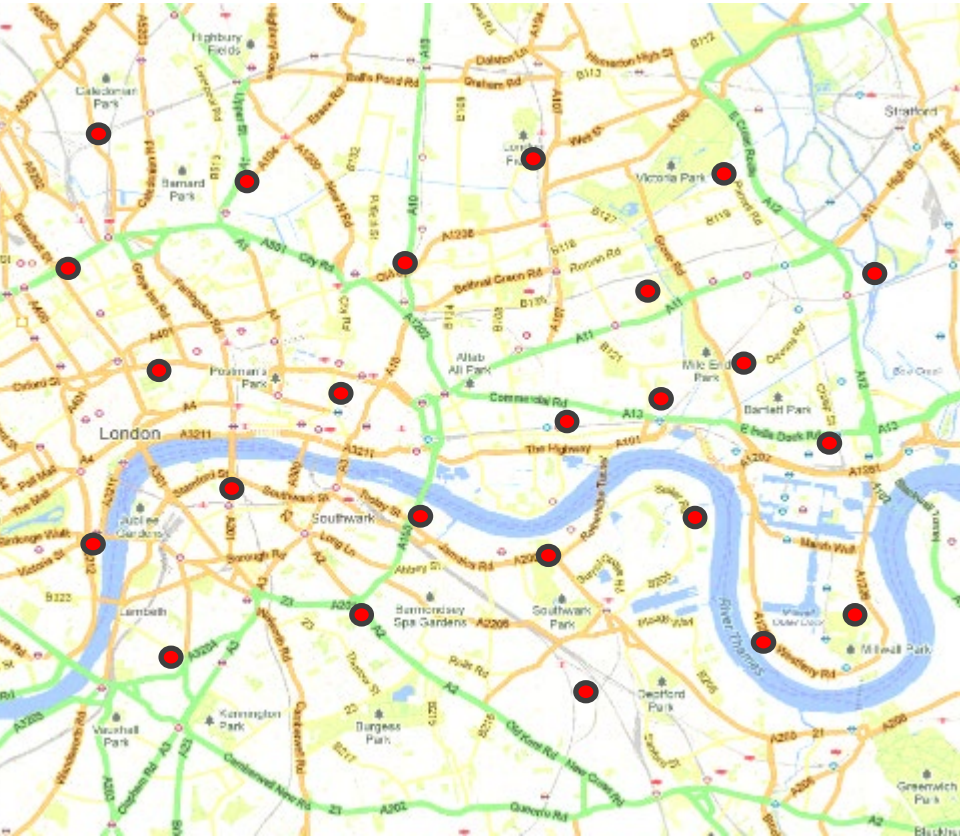
Transportation Problems



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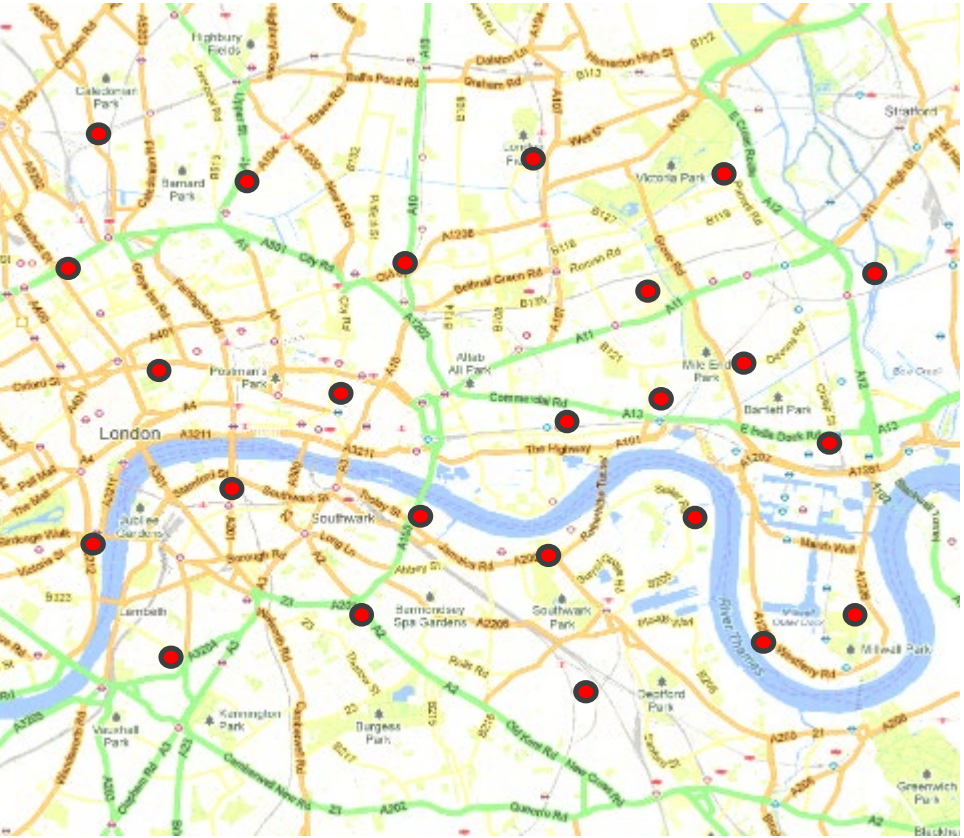
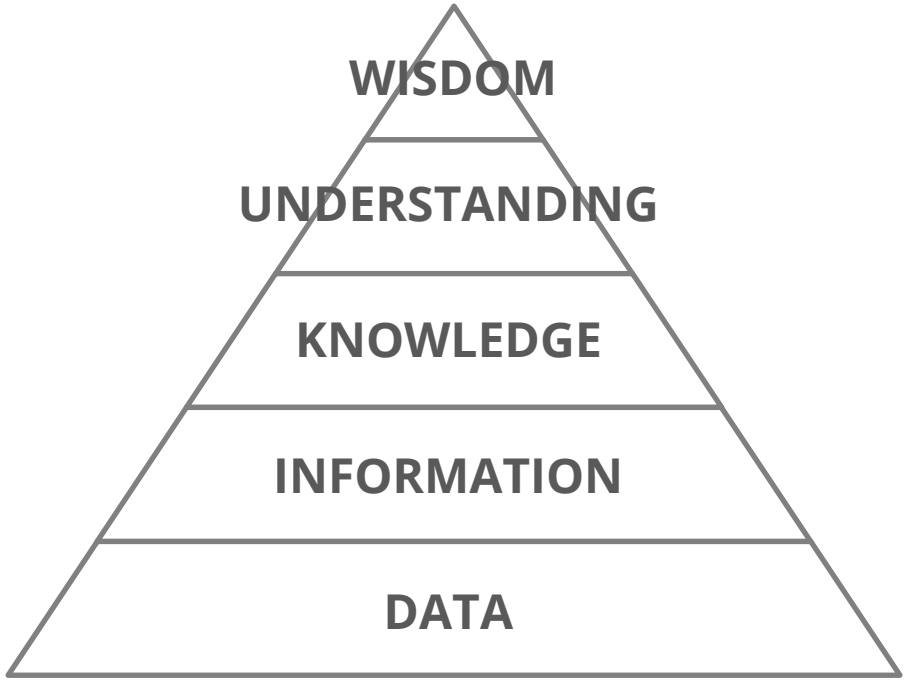


#	ROUTES	1,000,000 PER SECOND
10	3,628,800	4 seconds
11	39,916,800	1 minute
13	6,227,020,800	2 hours
14	87,178,291,200	1 day
16	20,922,789,888,000	1 year
20	2,432,902,008,176,640,000	77,000 years
22	1,124,000,727,777,610,000,000	36 millennia
24	620,448,401,733,239,000,000,000	20B years

Automation



Prescriptive analytics
- Optimisation
- Decision-science

Predictive analytics
- Data-science
- Machine learning

Descriptive analytics
- Contextualisation
- Data visualisation

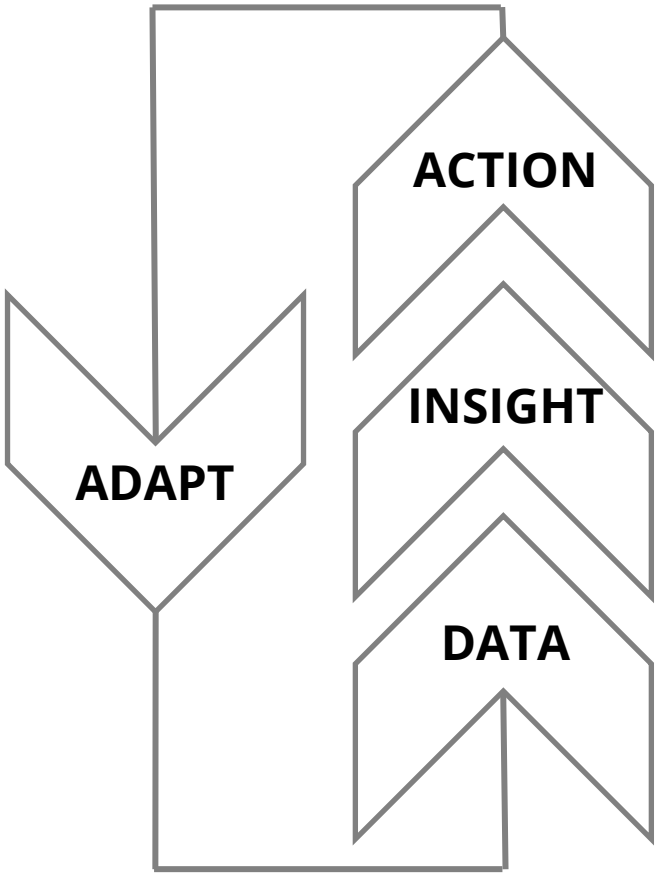
Data Engineering
- Infrastructure
- Data assimilation

Artificial Intelligence

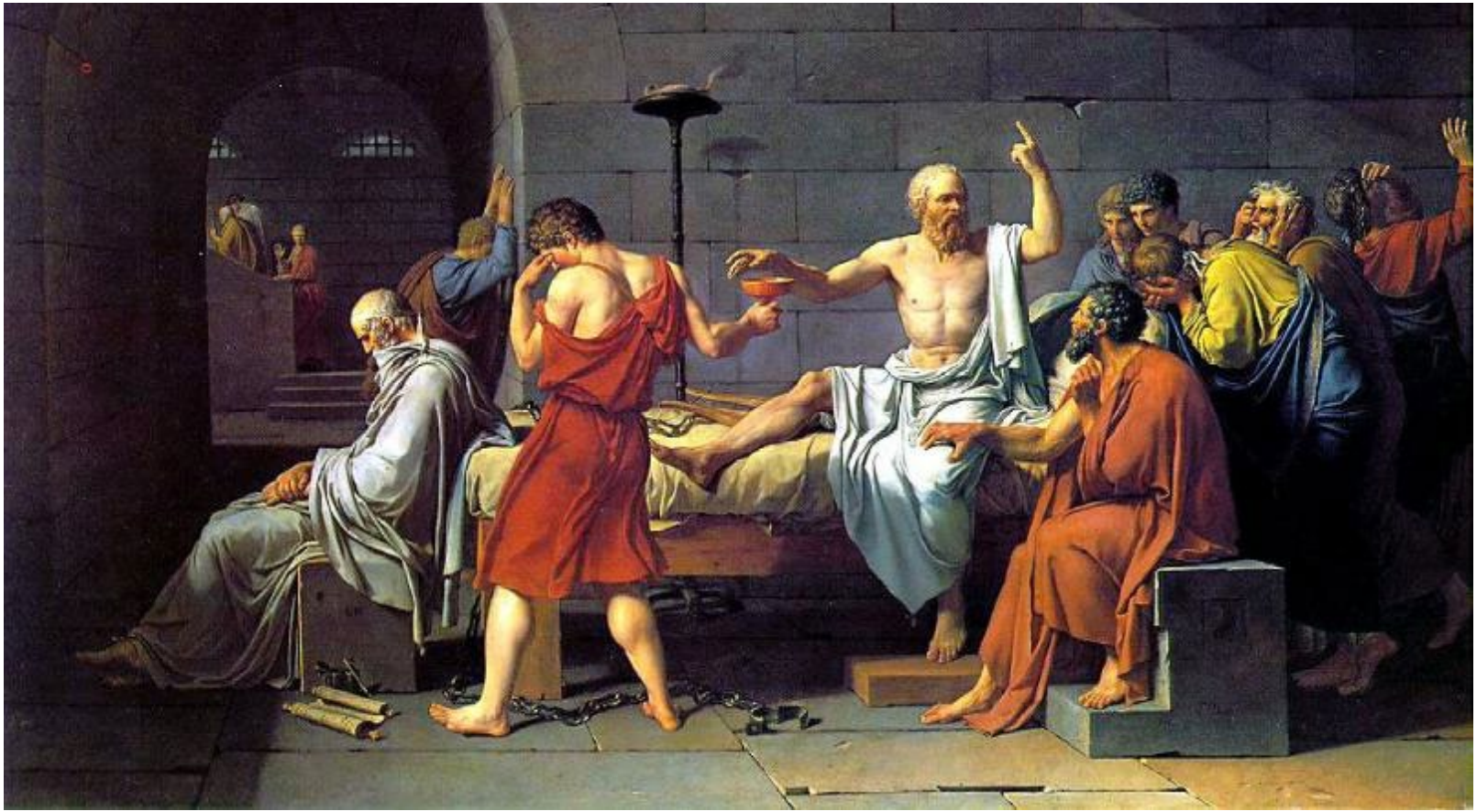
Intelligence

Goal-directed
Adaptive
Behaviour

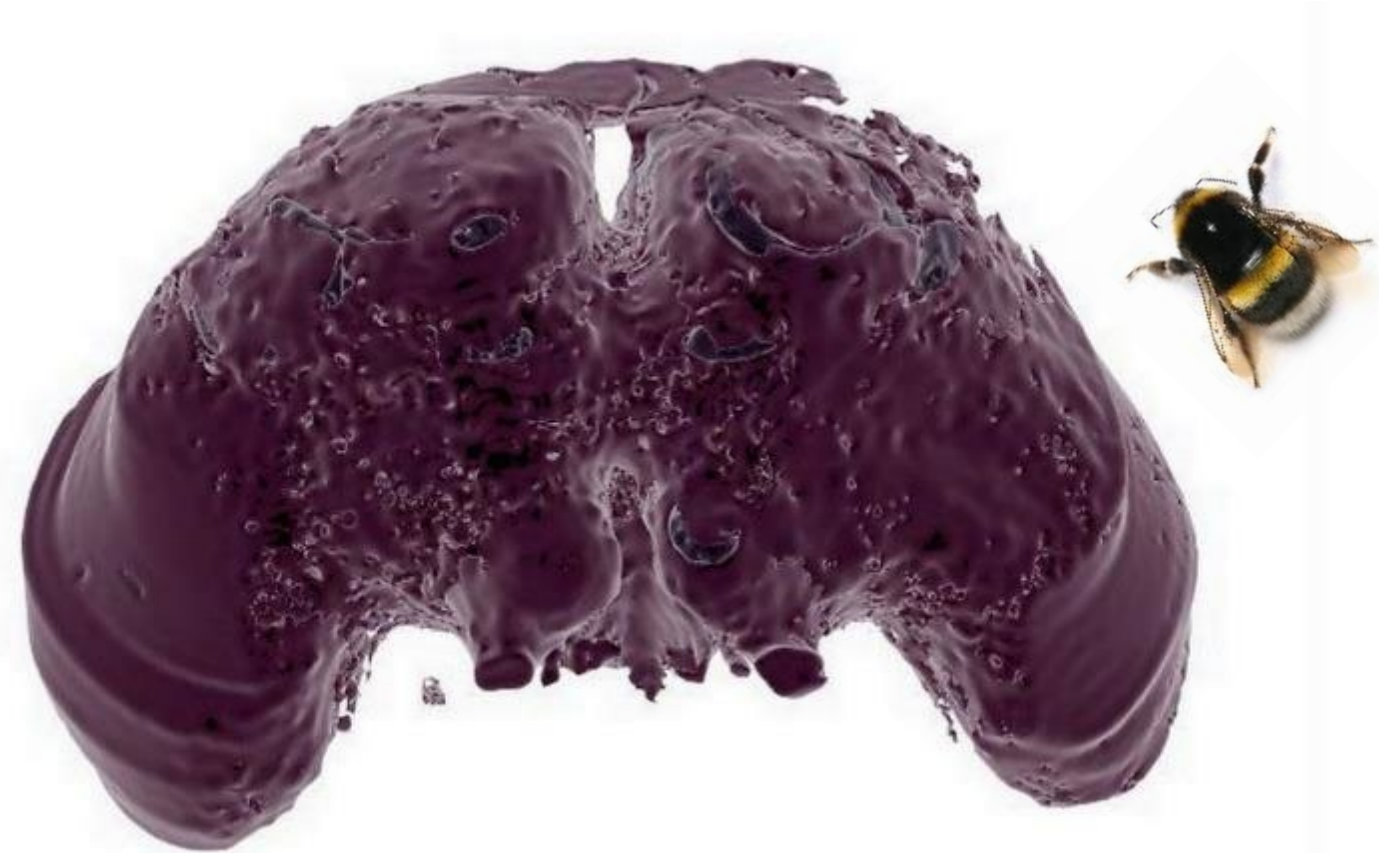
Sternberg & Salter



Reasoning (Understanding, Wisdom)



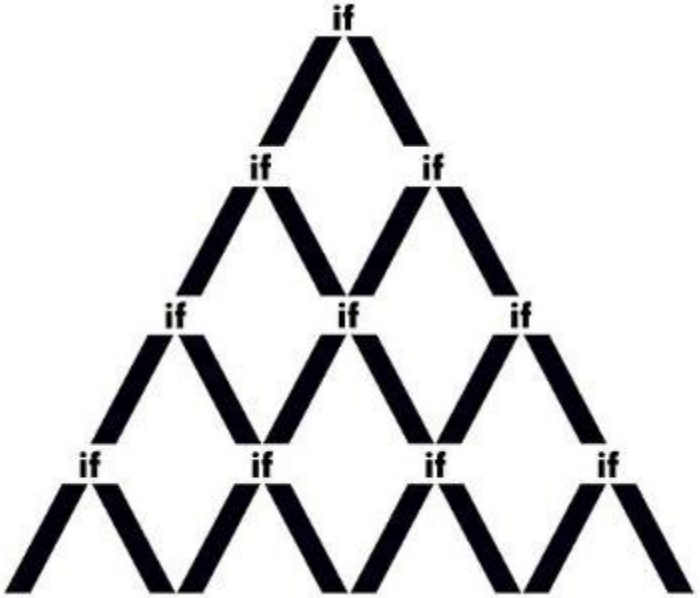
Prediction (Data, Information, Knowledge)



Applications of AI

The 6 Applications of AI

1. **Task automation.**
    - Macros, RPA, chatbots, object recognition



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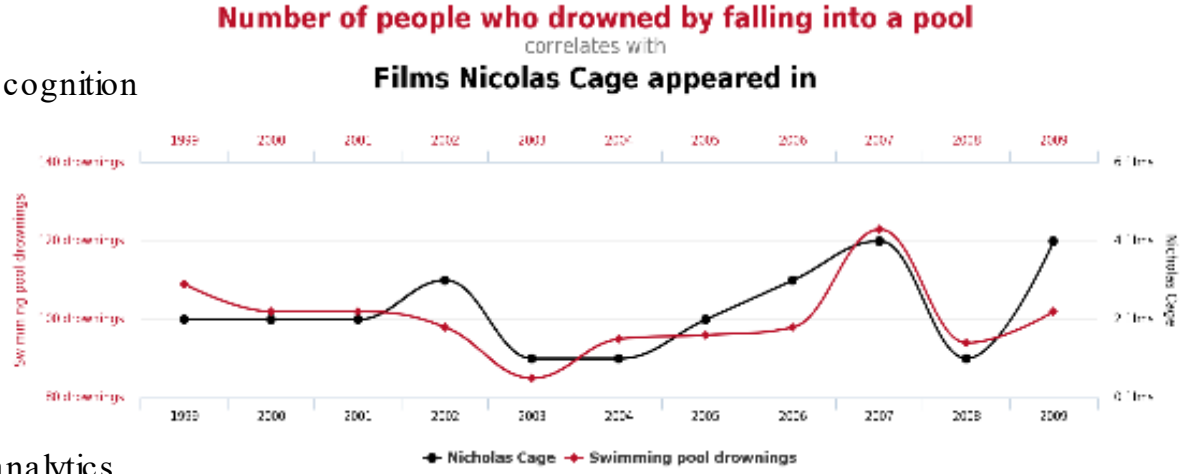

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    - Exoskeletons, avatars, cybernetics

Surface the key challenges and interventions

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Security
Authentication
Accessibility
Anonymity/Privacy

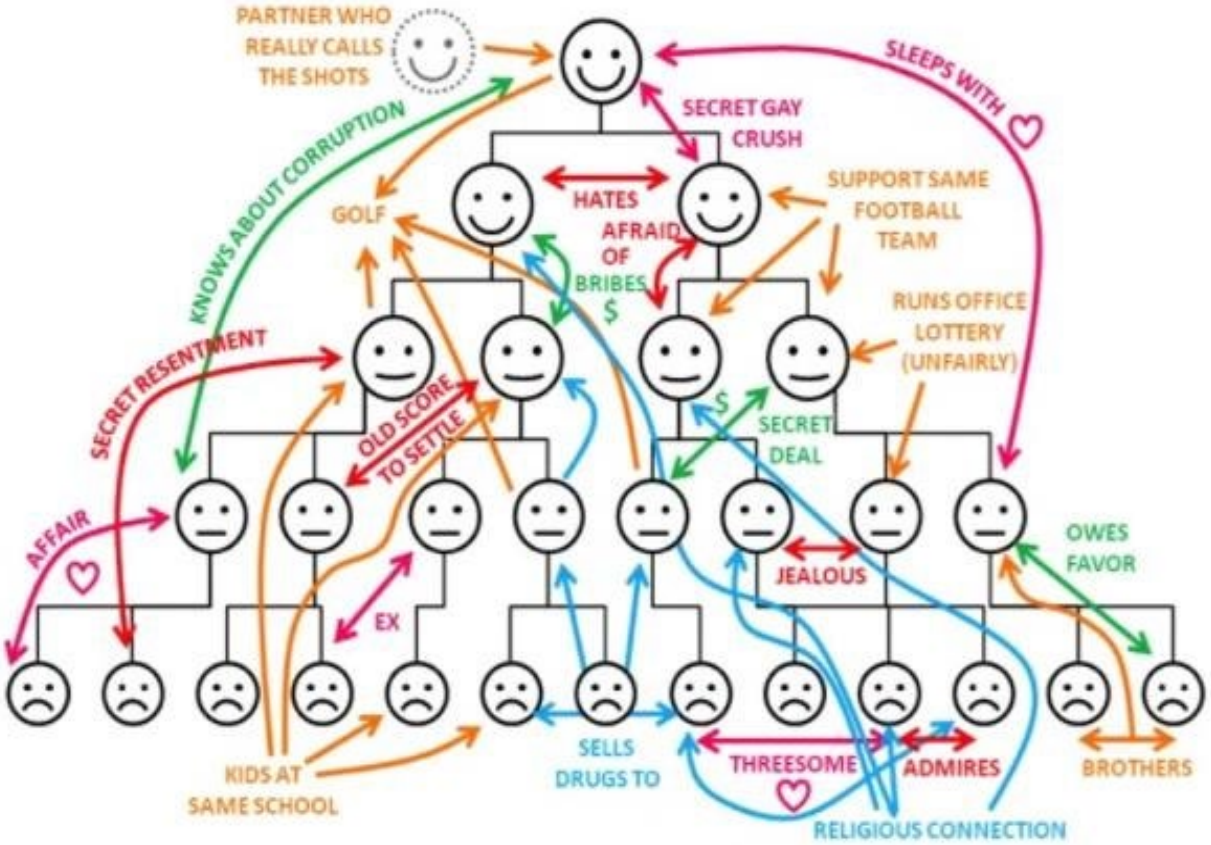
Safety
Transparency
Explainability
Auditability

Governance
Accountability/Responsibility
Change management
Decision-making

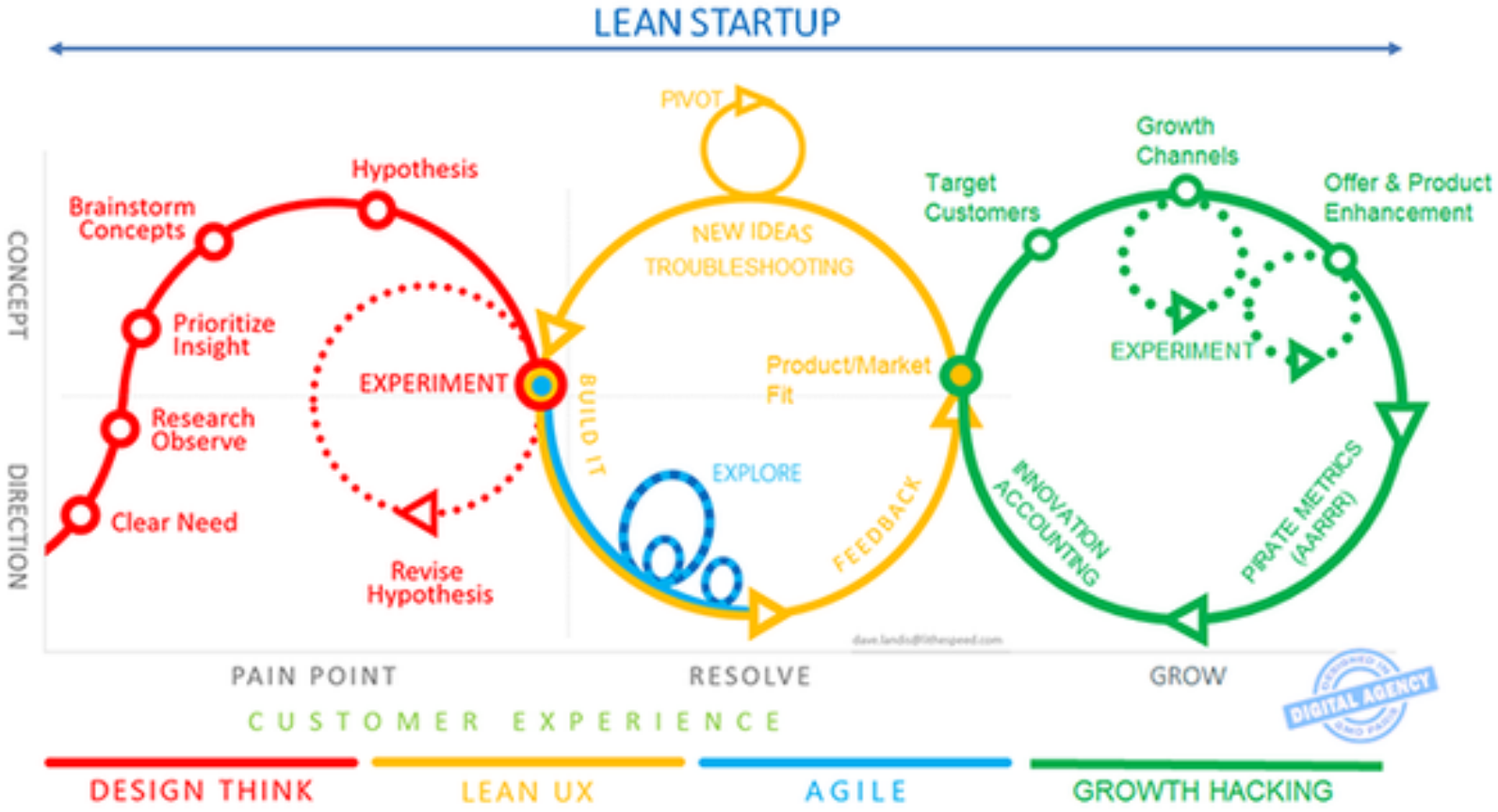
Ethics
Intent
Objectives
Consequences/Risks

Innovation

Hidden dynamics in hierarchy



Being Adaptive



8 Important Trends (Corporate Rebels)

1. Profit → Purpose & values
2. Hierarchical pyramid → Network of teams
3. Directive leadership → Supportive leadership
4. Plan & predict → Experiment & adapt
5. Rules & control → Freedom & trust
6. Centralized authority → Distributed decision making
7. Secrecy → Radical transparency
8. Job descriptions → Talents & mastery

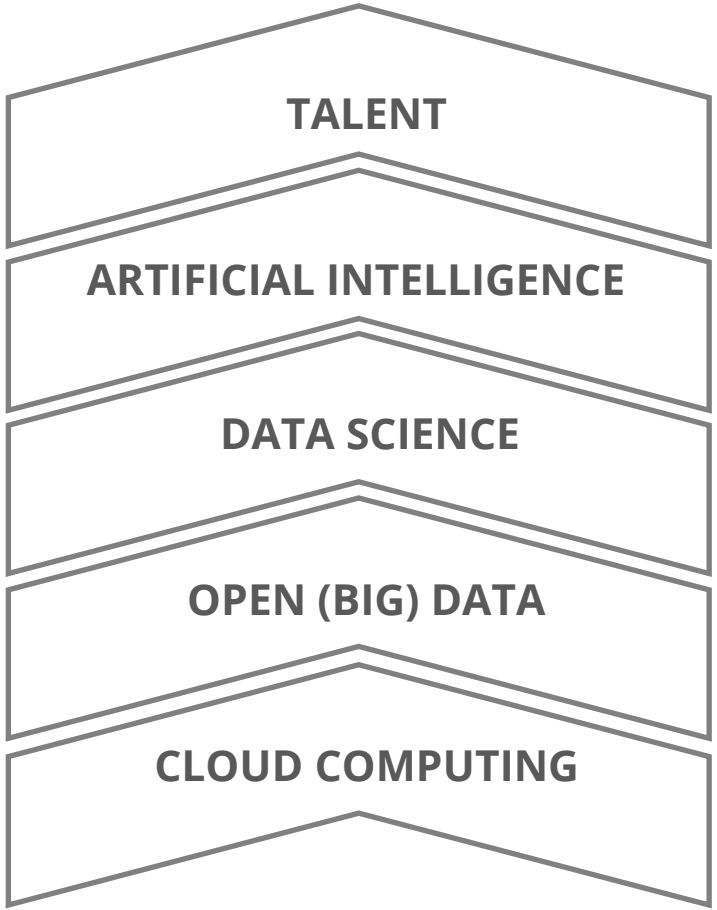
Innovation, Motivation and Purpose

“Creativity that ships”
Steve Jobs

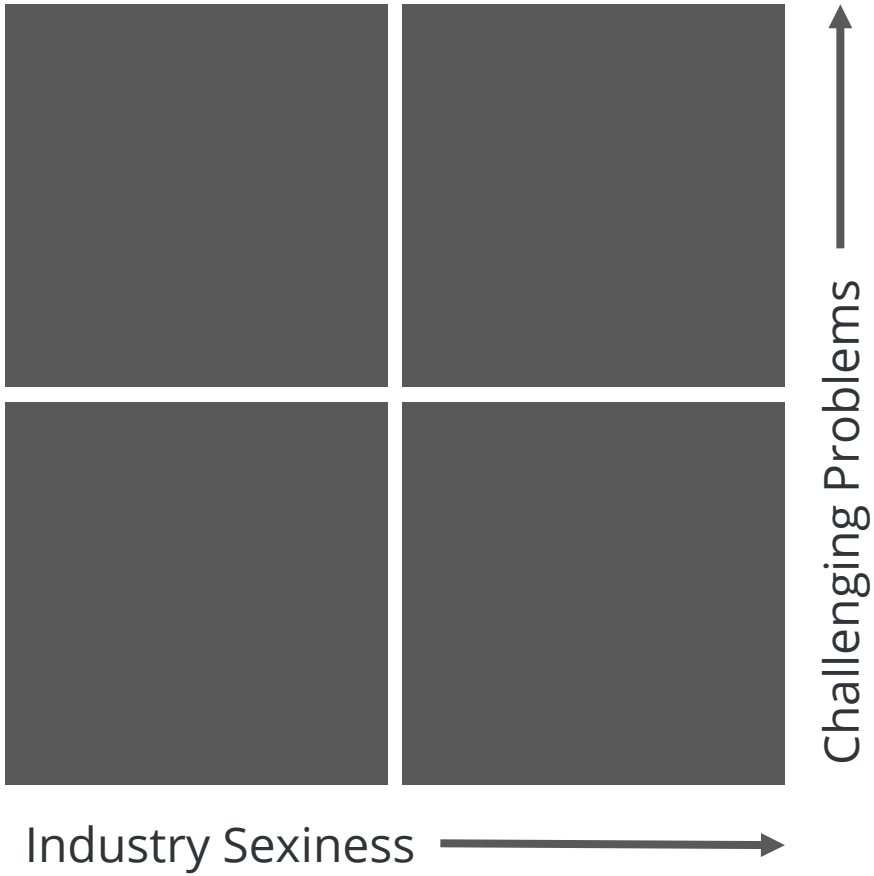
“Motivation is the Energy for Action”
Edward Deci

“Autonomy, Mastery, Purpose”
Dan Pink, Drive

“Time is the new money”
Richard Branson



Talent Strategy



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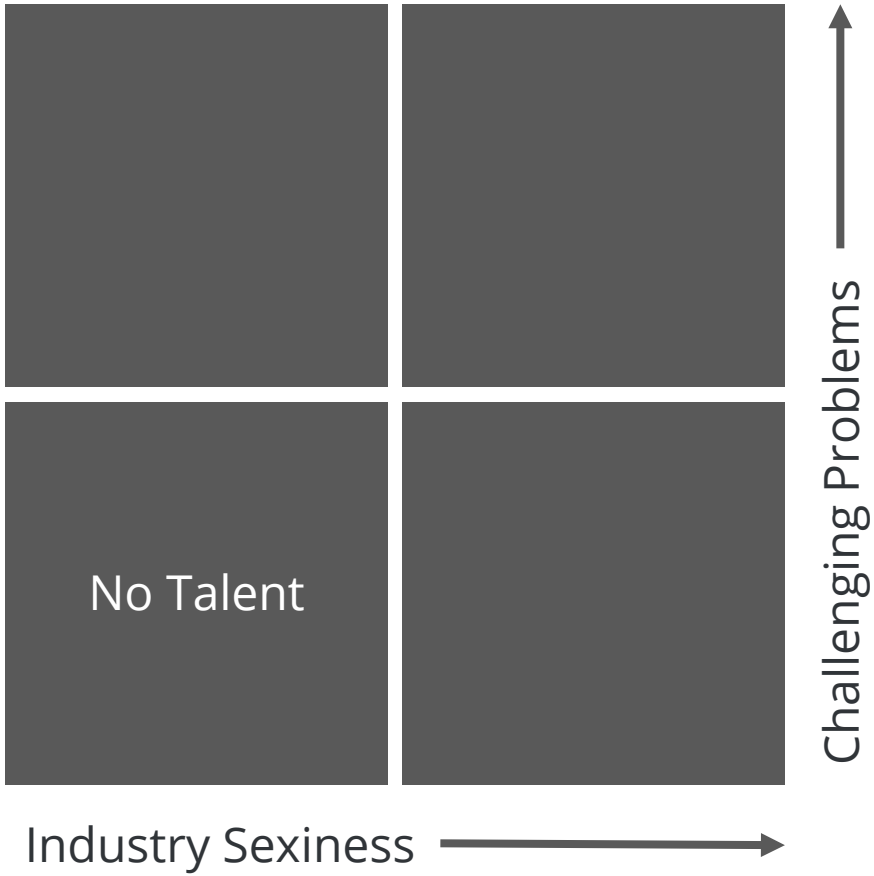

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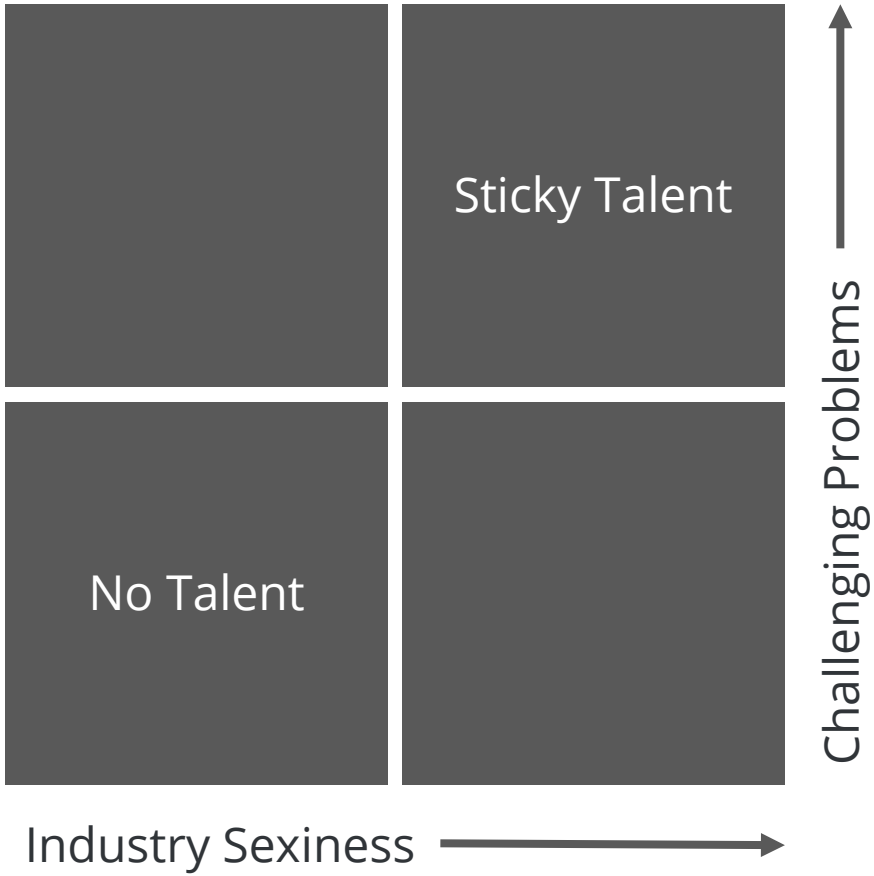

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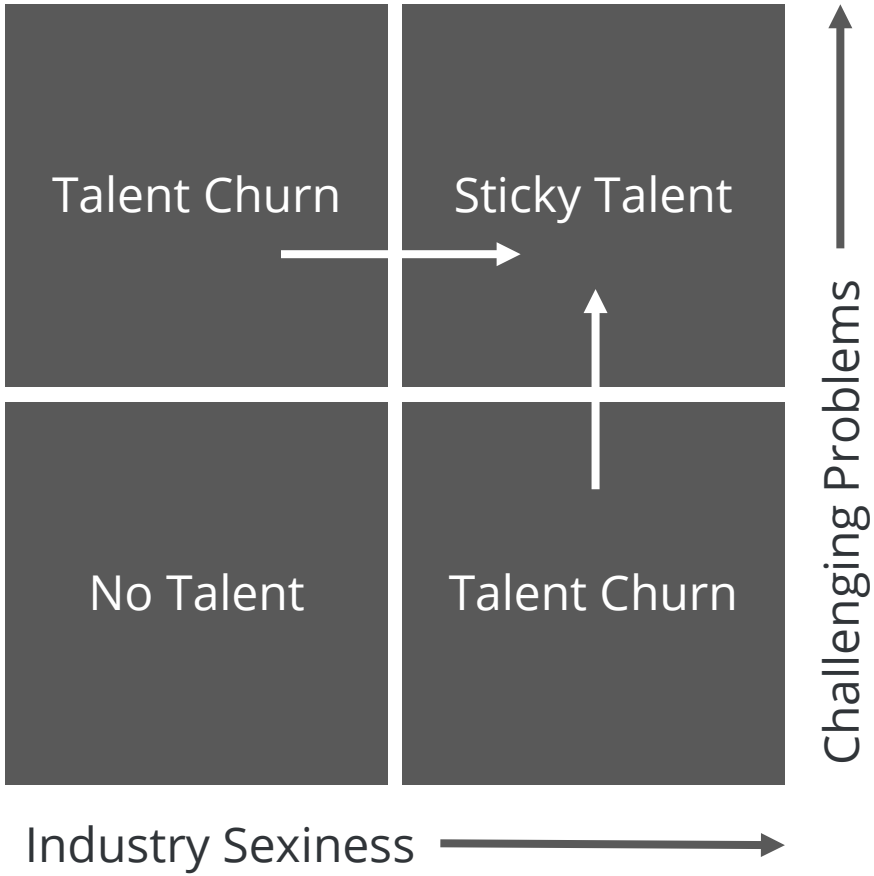

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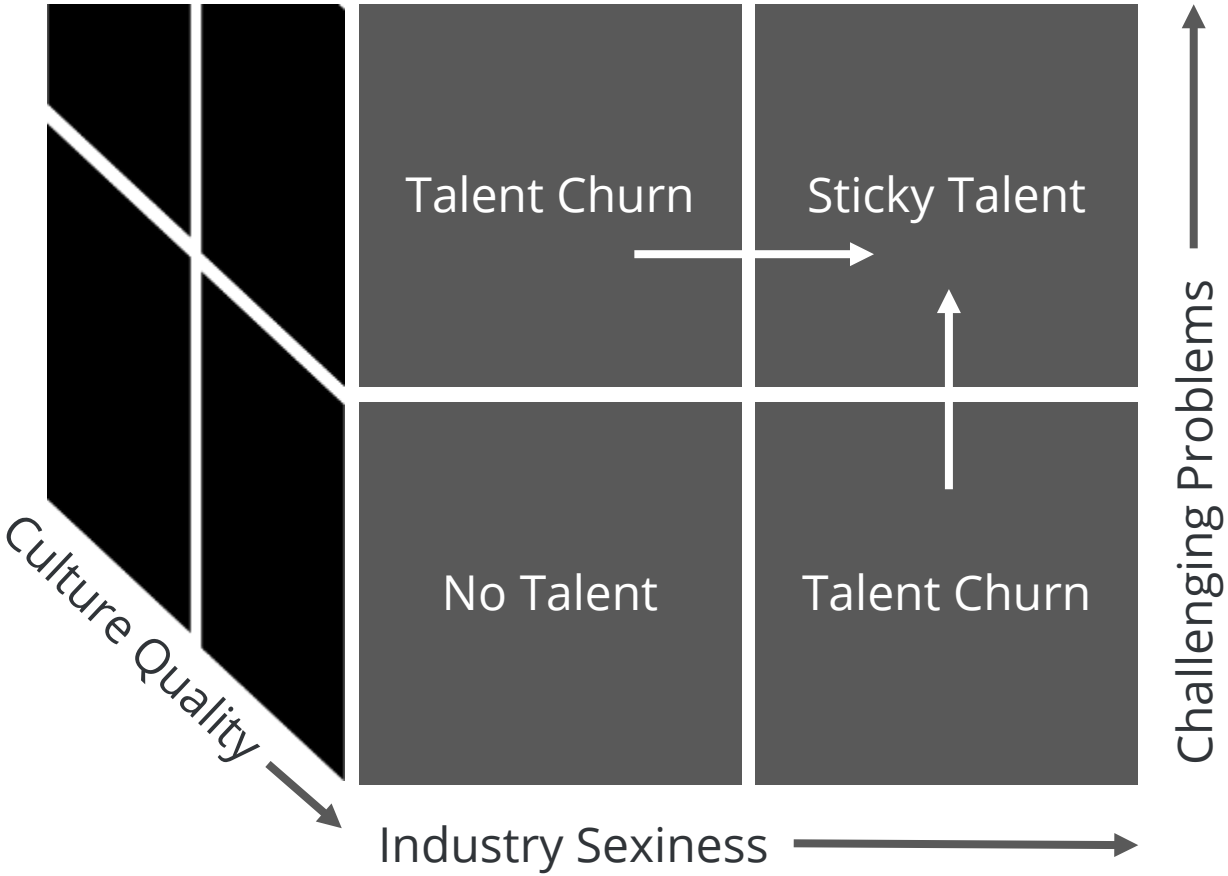
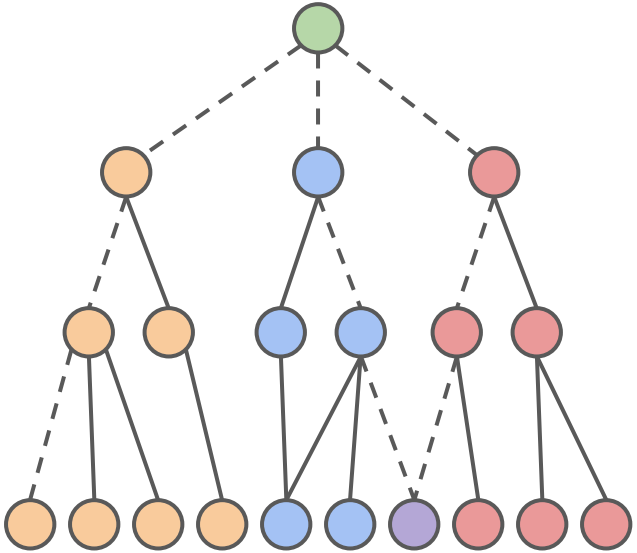
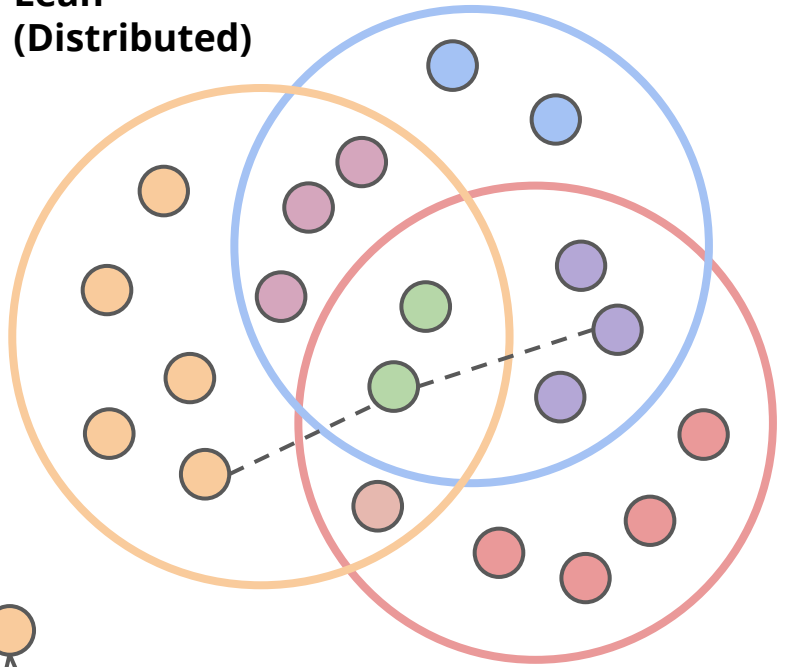


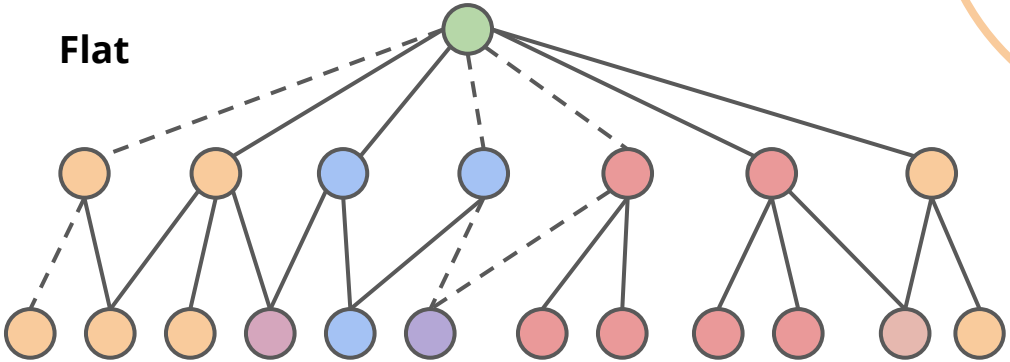
Fat



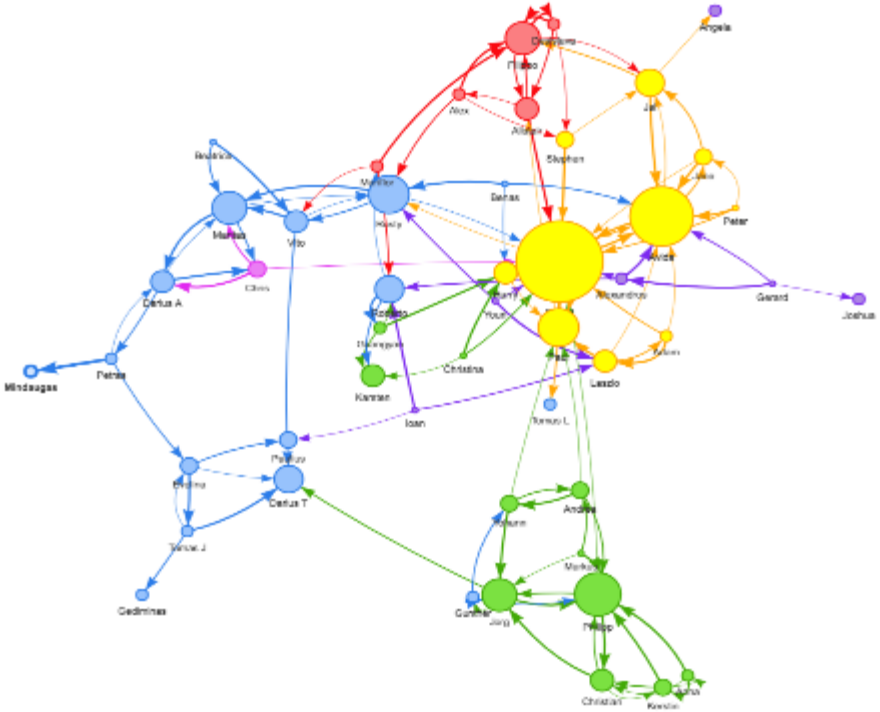
Lean
(Distributed)

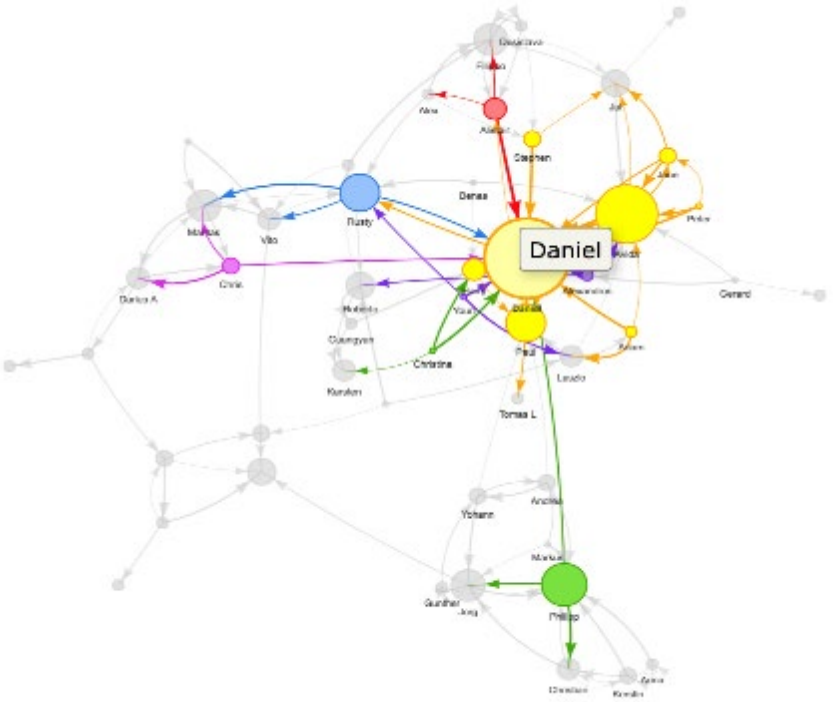


Flat



Organisational Network Analysis

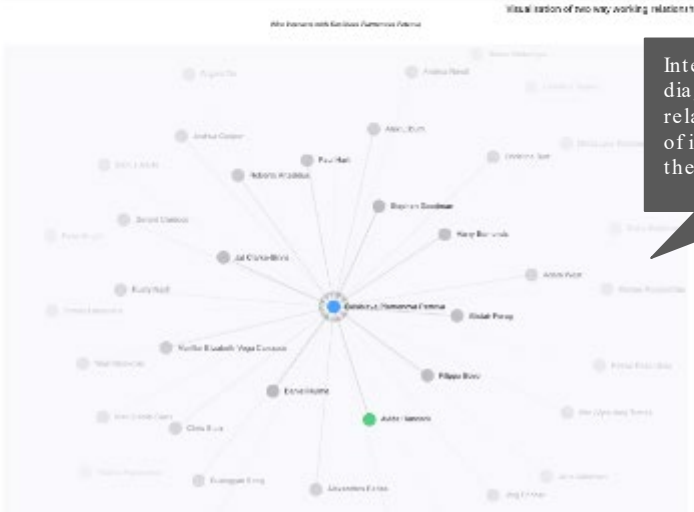




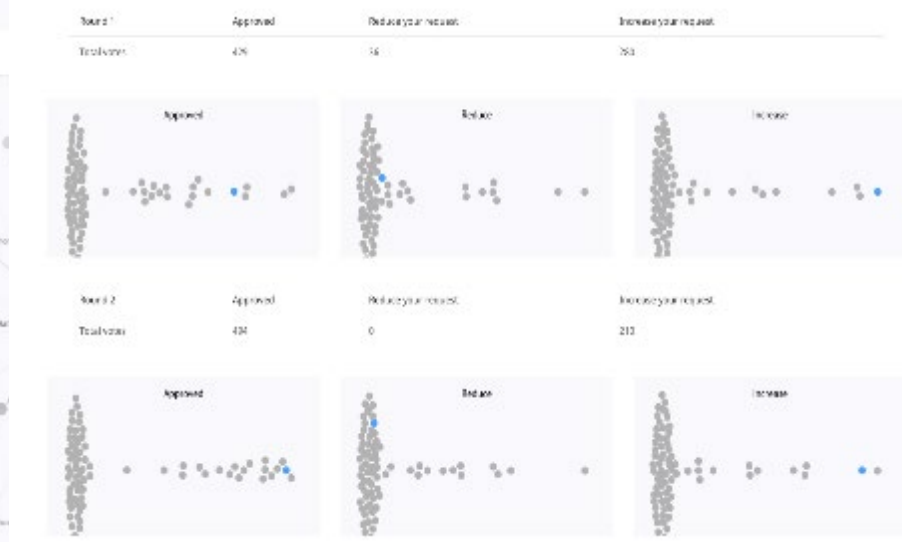
Strictly Confidential

Swarm diagrams provide transparent data on activity across network tools.

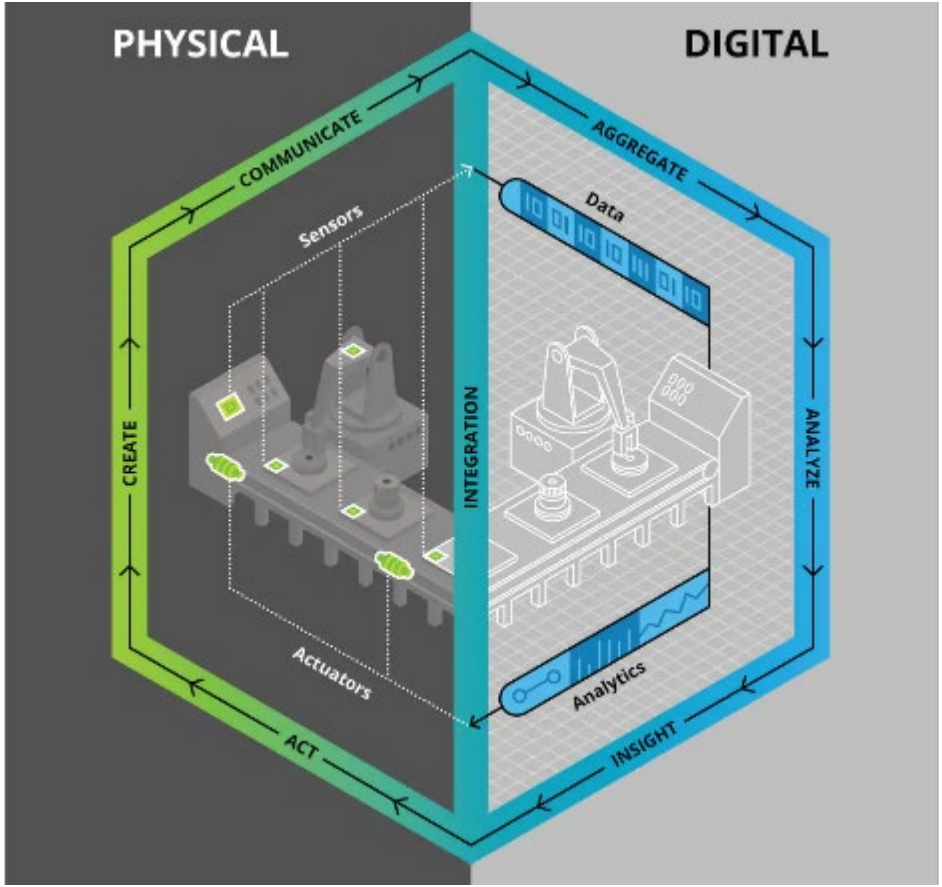
Swarm diagrams show the significance of points and the weight of opinion compared to the suggestions received by others within the organisation.



Interactive network diagrams show relationships and the flow of information from and to the worker.



Digitization



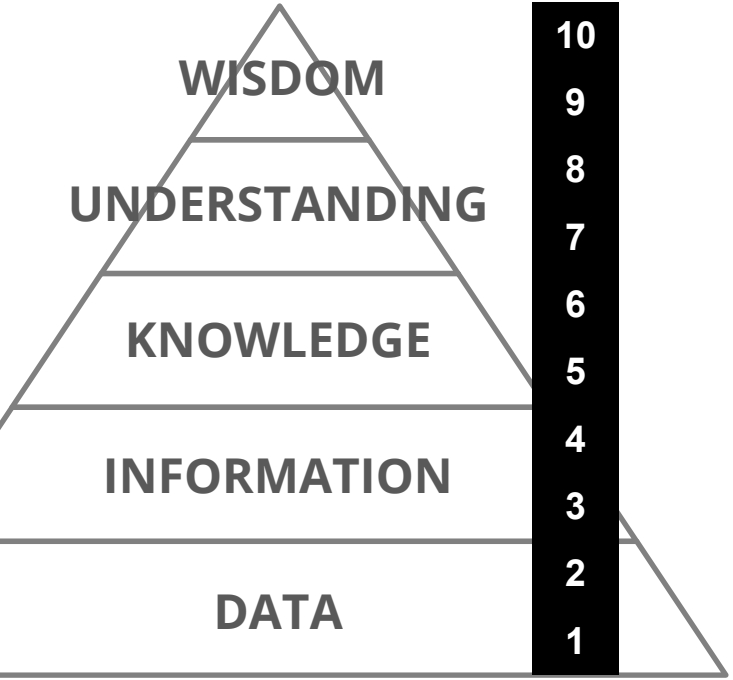
Three maturity levels:

- Digital Transformation
- Digital Twins
- Digital Cognition

Three types of Twin

- Operations
- Workforce
- Processes

Identifying Opportunities



#	Map	Opportunity	Comments
1			
2			
3			
4			
5			
6			
7			
8			
9	*7*	*Construction requirement forecasting*	
10	*9*	*Construction Workforce Allocation*	*Contractors are a massive cost*
11	*5+10*	*Field Service Optimisation*	*Nuances requires more customisable solution*
12	*6*	*Supplier confidence prediction*	*Huge problem, also needs automation*

Mapping Opportunities

1. Task automation
2. Content generation
3. Human representation
4. Extracting insights from data
5. Complex decision making
6. Extending abilities of humans

#	Map	Opportunity	Comments
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12	*6*	*Supplier confidence prediction*	*Huge problem, also needs automation*

Prioritising Opportunities

#	Map	Opportunity	Data	Size	Value	Time2value	Buy-in	Team	Reuse	Maintain	Hype	Comments
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12	*6+[4]*	*Supplier confidence prediction*	*3*	*1*	*2*	*1*	*3*	*2*	*2*	*3*	*3*	*Huge problem, also needs automation*

The Future

PESTLE of Singularities

"The nation that **leads** in **AI** will be the ruler of the **world**"

Political.

Environmental.

Social.

Technological.

Legal.

Economic.

Political. we no longer know what is true

Environmental. we have uncontrollable ecological collapse

- Environmental and technological risks continue to rise

- Geopolitical and societal risks are stable but remain high

- Economic risks perceived as low both in likelihood and impact

- Environment -related risks again lying in the higher -impact

- Top likely global risks are extreme weather events

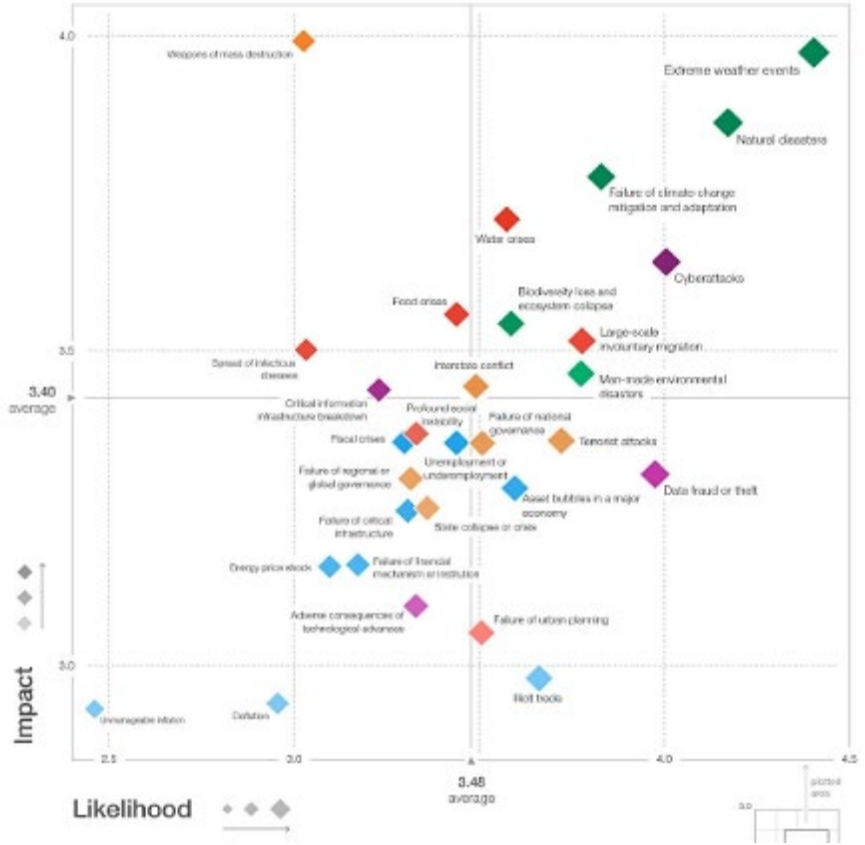
- Previous years respondents to the GRPS tended to be optimistic about technological risks, this year's concerns jump

- Cyber attacks rank 3rd global risks in both likelihood and impact

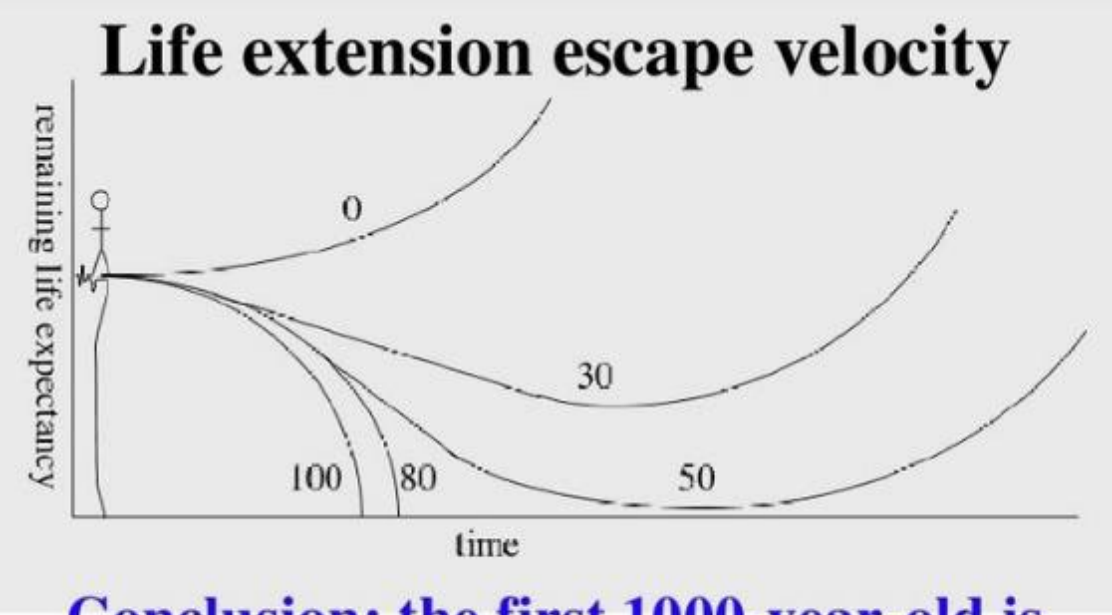
- Data fraud and theft rank as 4th global risks in terms of likelihood

- Geopolitical risks expect to worsen due to political and economic confrontations/frictions between major powers

- Most interconnected risks were "adverse consequence of technologies" and "unemployment and under-employment", both highly connected with "profound social instability"

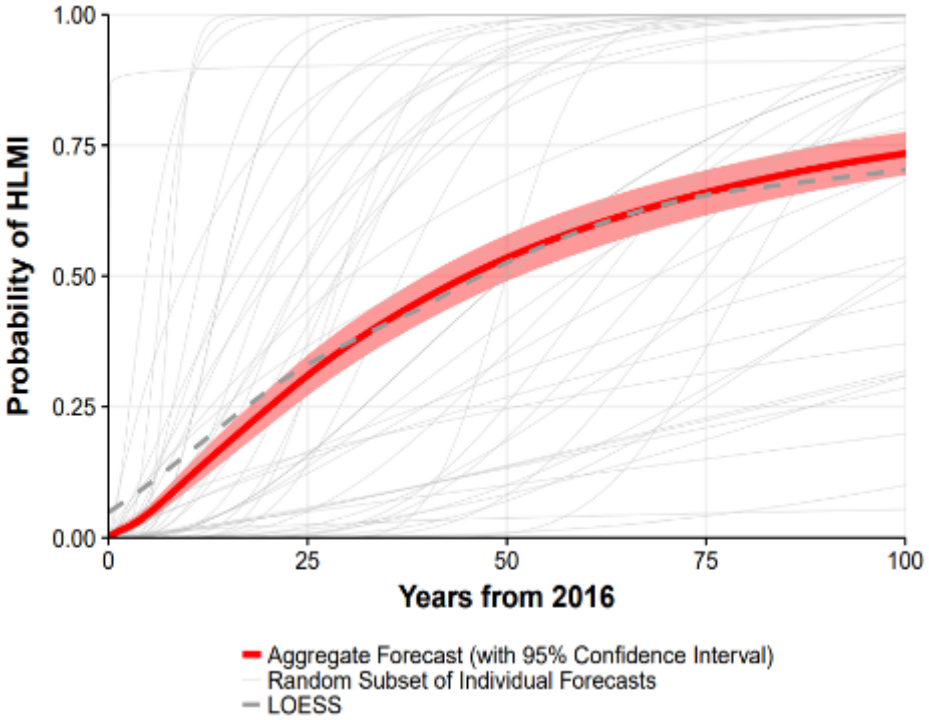


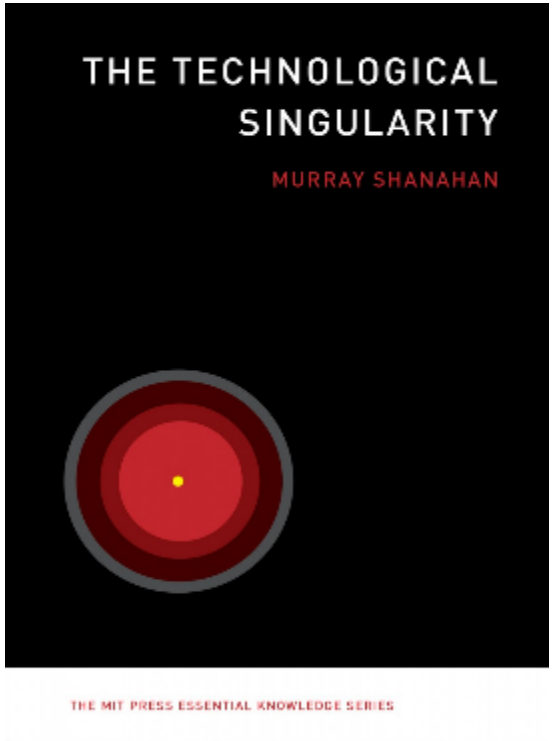
Social. we cure death



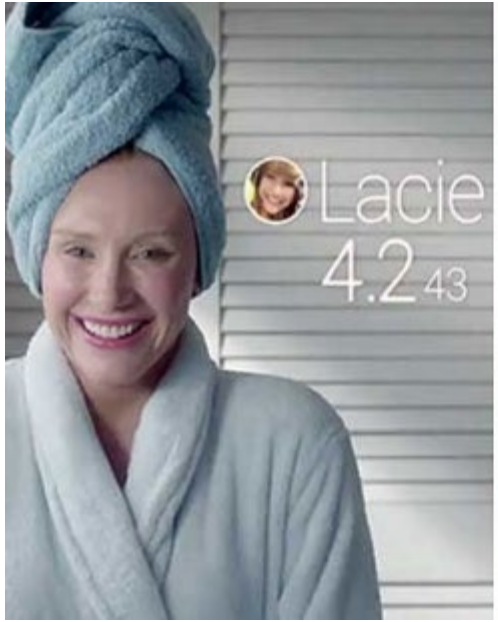
Conclusion: the first 1000-year-old is probably only ~10 years younger than the first 150-year-old

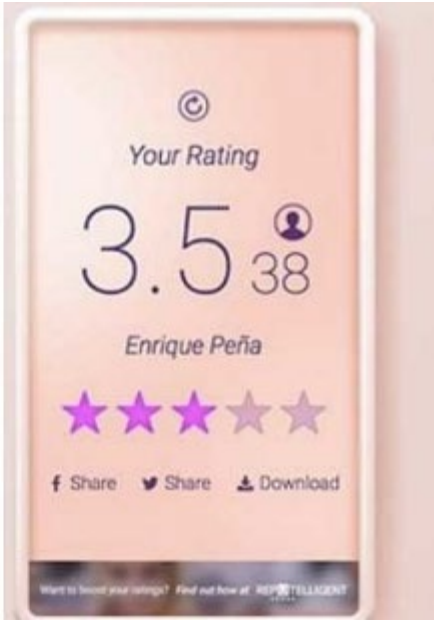
Technological. we create a Superintelligence



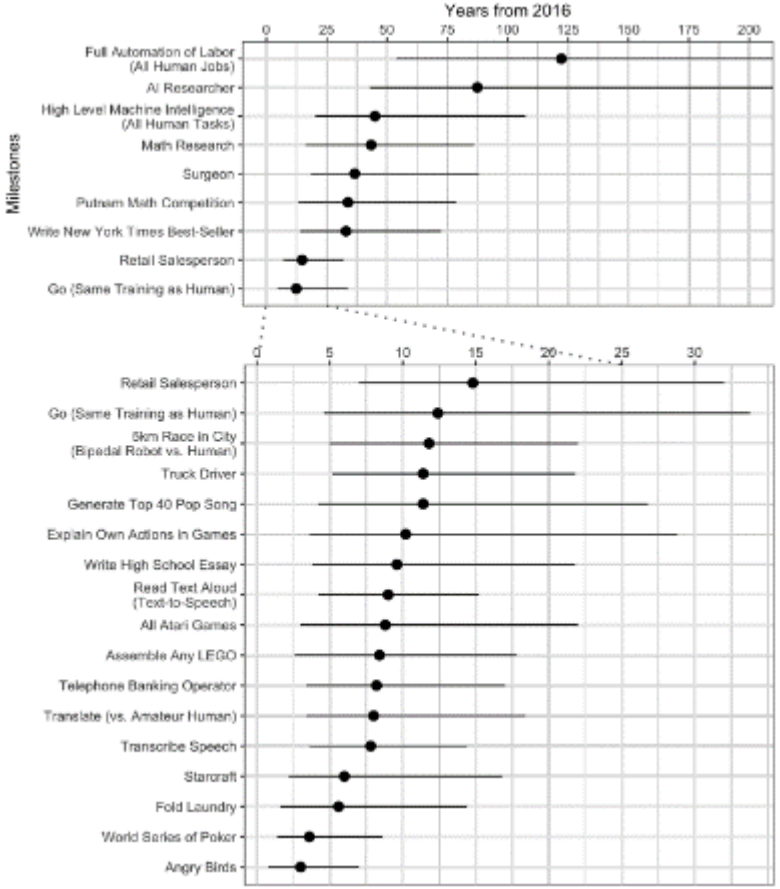


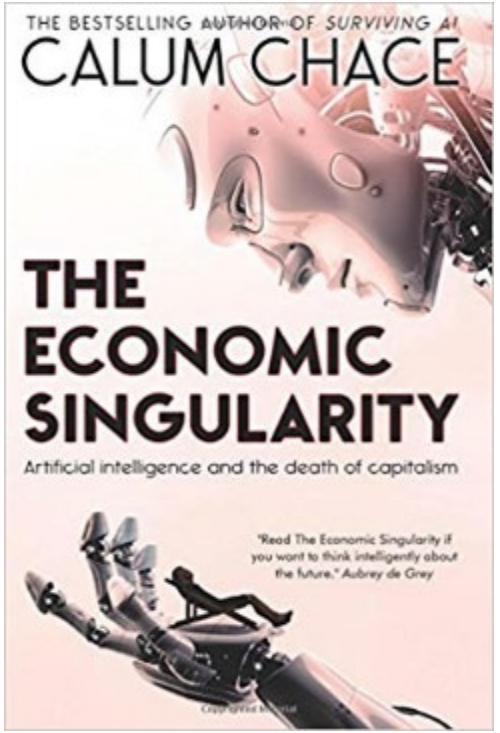
Legal. surveillance becomes ubiquitous



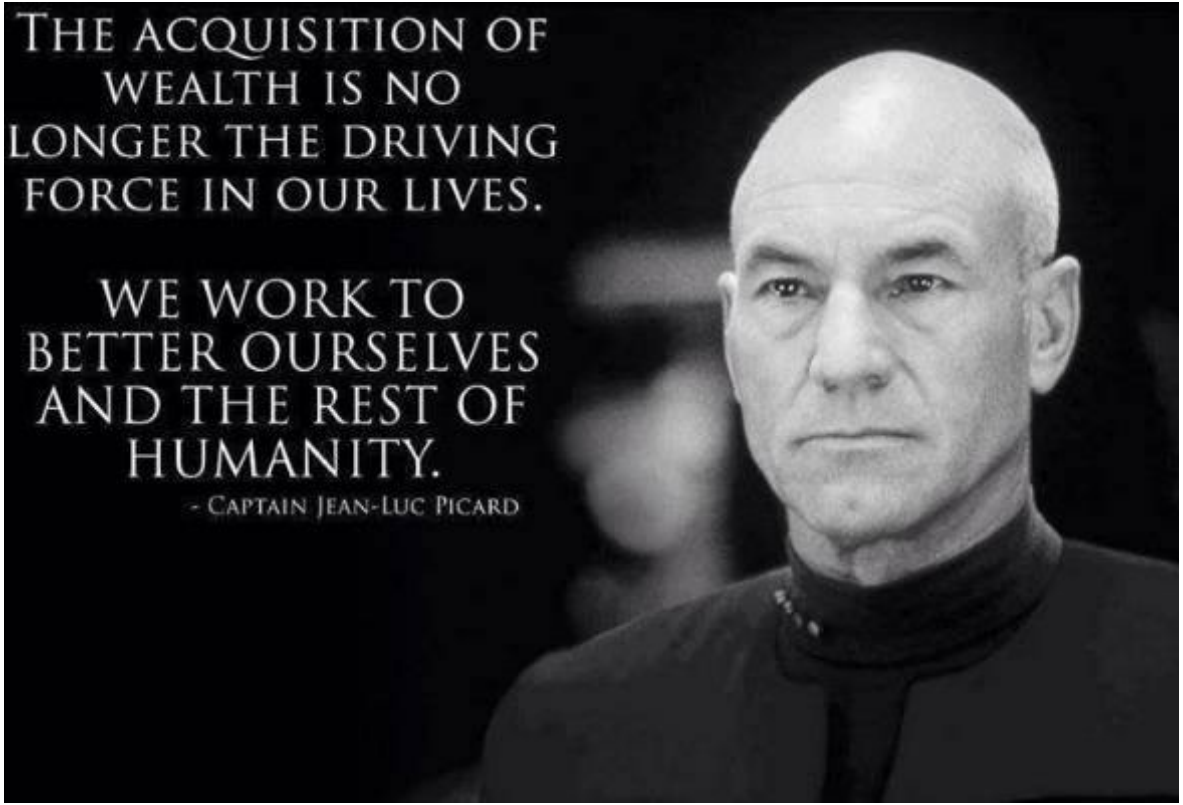


Economic. we automate the majority of labour





Purpose and Vision



Satalia's Vision

Everyone free to live beyond themselves

WPP's Purpose

We use the power of creativity to build a better future

Questions

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