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NISO Plus 2022

Why Explainable AI is Sometimes Not Explainable



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What is AI?

What is AI?

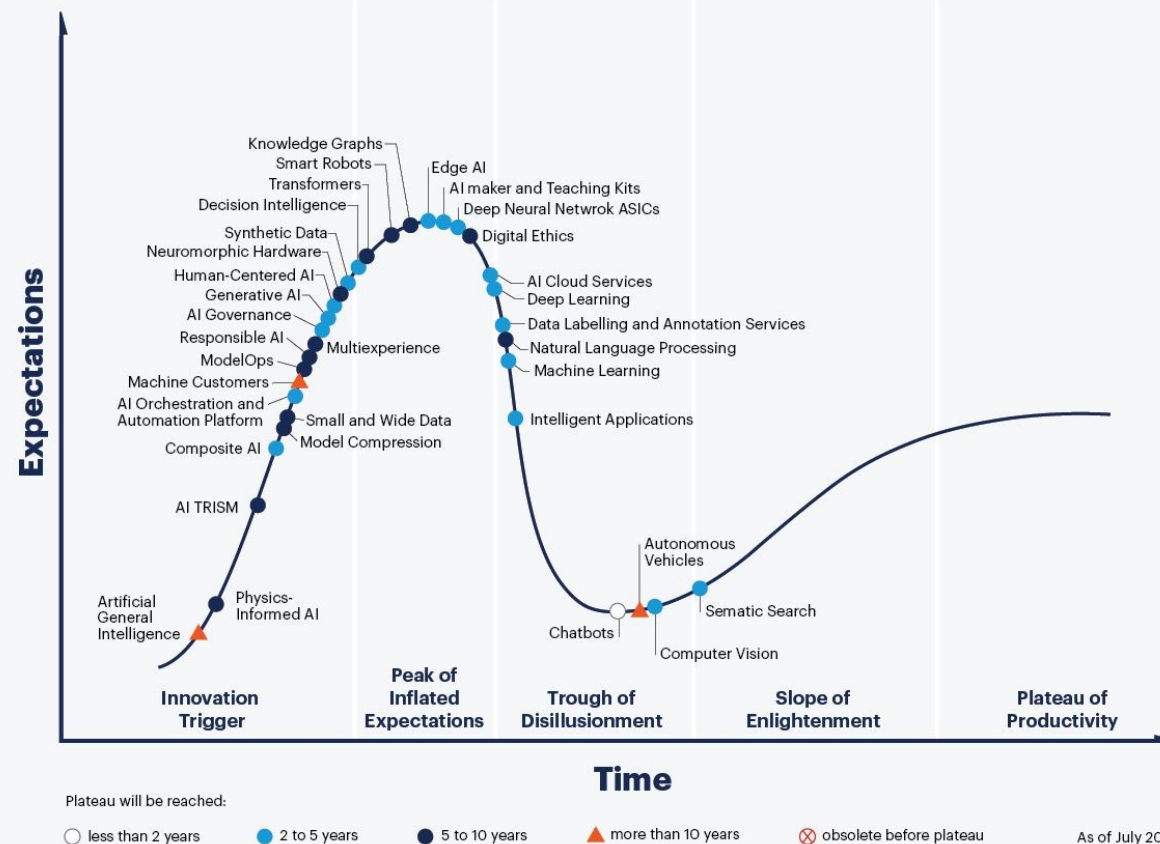
Ontologies
Taxonomies
Data Fabric
Explainable AI
Authentic AI
Machine Learning
Deep Learning
Data Management
Vocabularies
Schemas
Resource Description Framework
Web Ontology Language
Pattern Recognition
Natural Language Processing
Semantic Models
Knowledge Reasoning

“artificial intelligence”

“assisted intelligence”

“advanced algorithms”

Hype Cycle for Artificial Intelligence, 2021



[gartner.com](https://www.gartner.com)

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Gartner

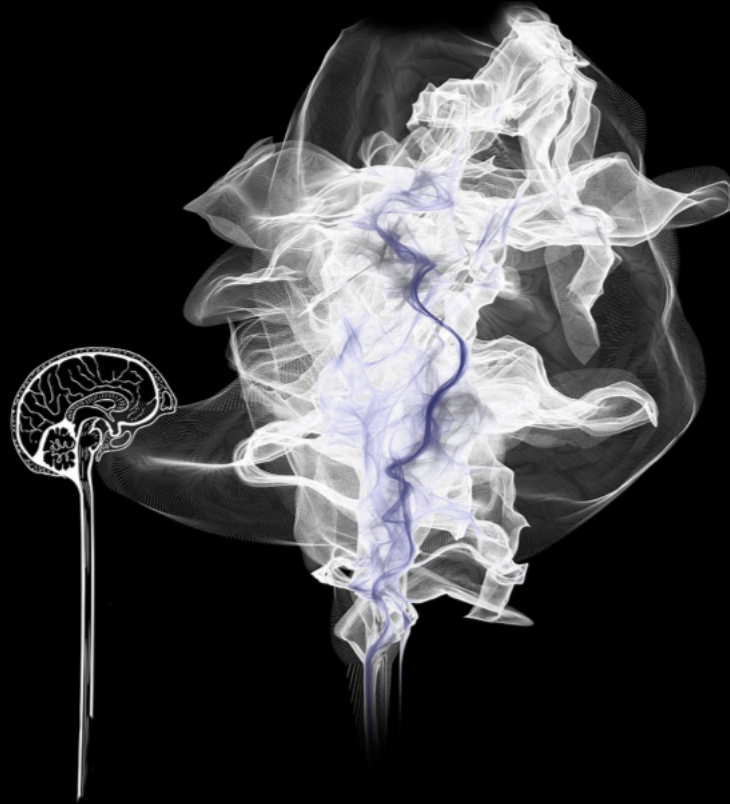
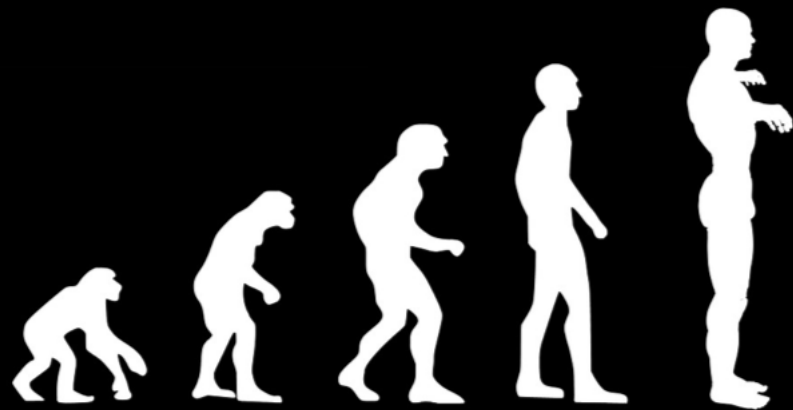
What is Artificial Intelligence?

There's an automatic association between AI and sci-fi. When people think of artificial intelligence, they tend to think of the Terminator, Data from Star Trek, HAL from 2001, etc. These represent a very specific form of AI known as Artificial General Intelligence (also known as Strong AI) - a digital form of consciousness that can match or exceed human-like performance in any number of metrics. An AGI would be equally good at solving math equations, conducting a humanlike conversation, or composing a sonnet.

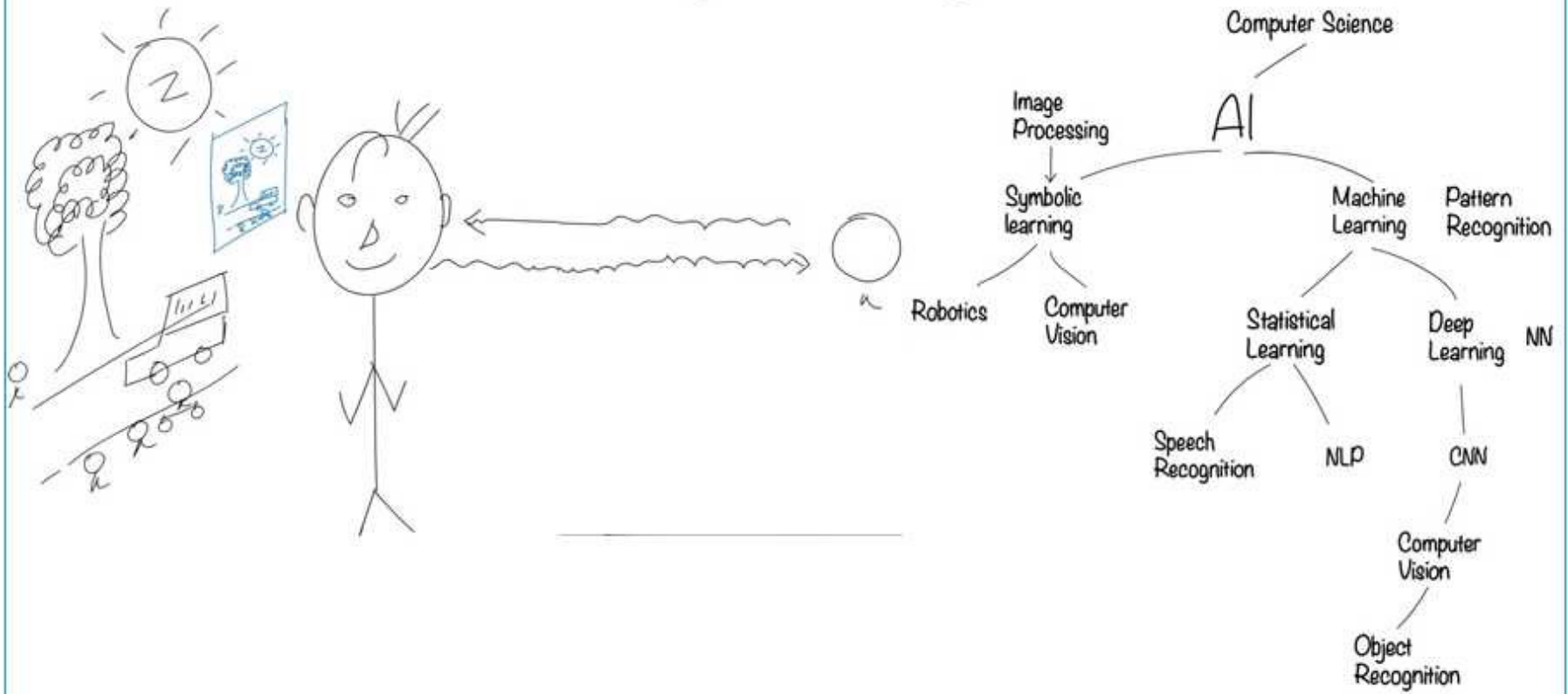
Currently, there is no working example of an AGI, and the likelihood of ever creating such a system remains low. Attempts to create AGIs currently revolve around the idea of [scanning and modeling the human brain](#), and then replicating the human brain in software. This is a sort of top-down approach - humans are the only example of working sentience, so in order to create other sentient systems, it makes sense to start from the standpoint of our brains and attempt to copy them.

If you take the bottom-up approach, you end up with what's known as Narrow or Weak Artificial Intelligence. This is the kind of AI that you see every day - AI that excels at a single specific task. AI powers apps that help you find music to listen to, tag your friends in social media photos, etc. Behind the scenes, it may help protect you or your company from fraud, malware, or malicious activity.

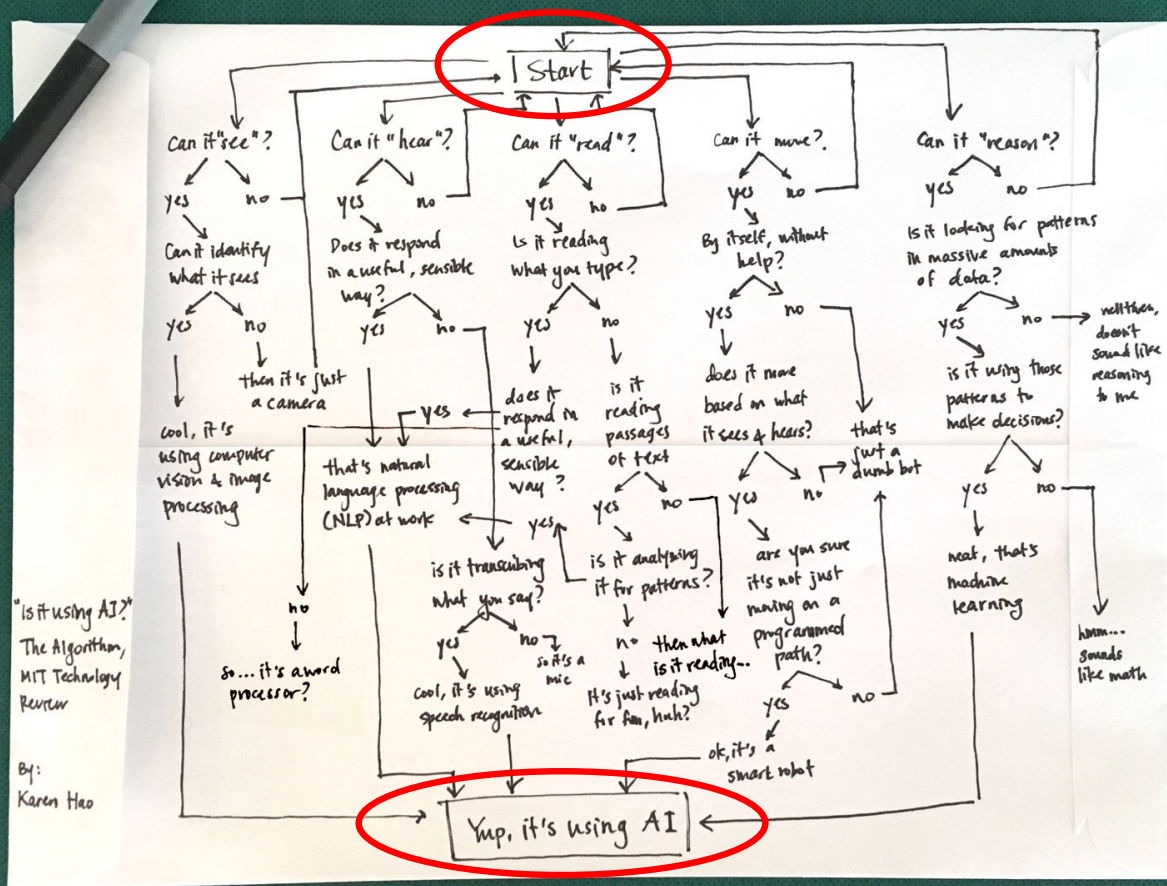
What is AI

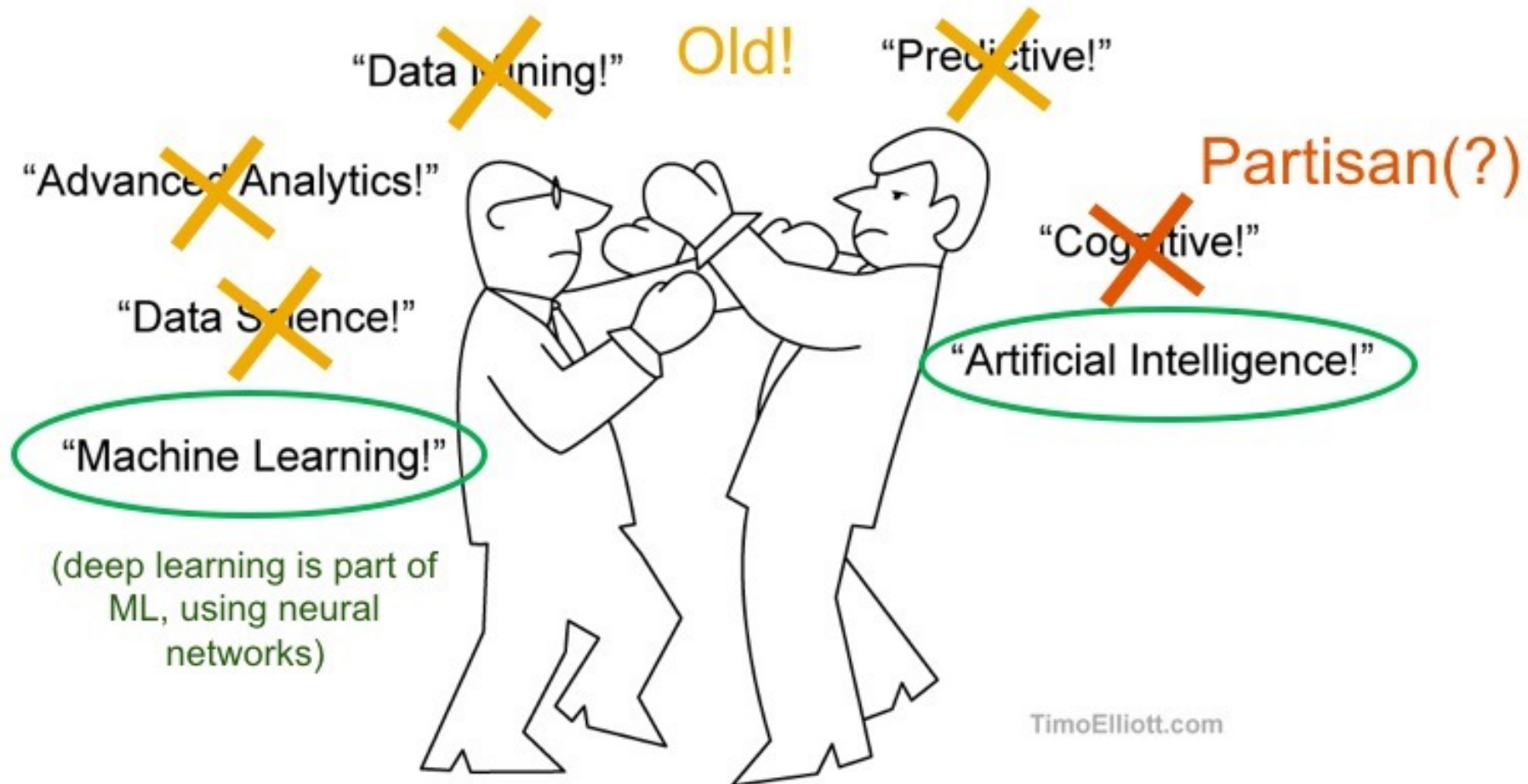


What is AI - For People In a Hurry!



8 Important Definitions of Artificial Intelligence







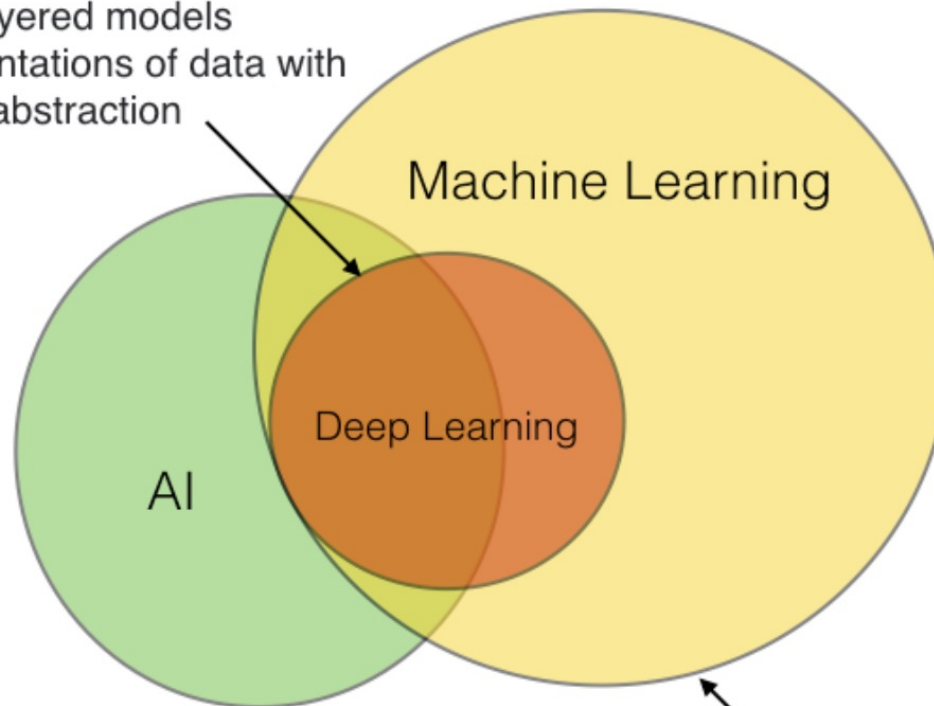
"Basically, we're all trying to say the same thing."

Definition of AI



The Oxford Dictionary defines Artificial Intelligence (AI) as **the theory and development of computer systems able to perform tasks normally requiring human intelligence**, such as visual perception, speech recognition, decision-making, and translation between languages.

particular, multi-layered models
that learn representations of data with
multiple levels of abstraction



a system that is
“intelligent” through rules

self-learning algorithms that
learn models from “data”

<https://sebastianraschka.com/fag/docs/ai-and-ml.html>



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AI and Publishing



“As discussions on AI increase, so does the hype—and therefore the confusion—surrounding it.”

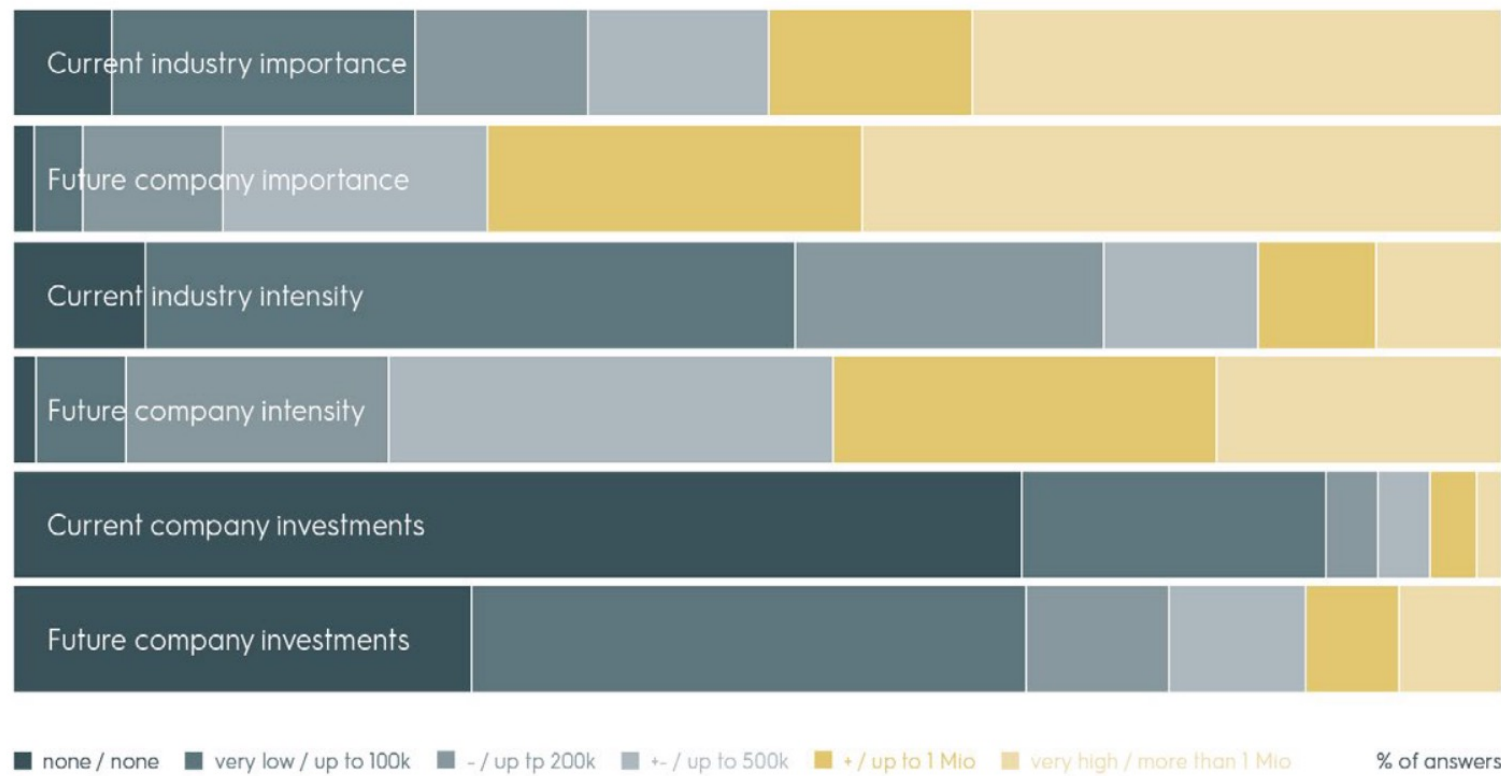
[https://www.buchmesse.de/files/media/pdf/White Paper AI Publishing Gould Finch 2019 EN.pdf](https://www.buchmesse.de/files/media/pdf/White_Paper_AI_Publishing_Gould_Finch_2019_EN.pdf)

AI and Publishing

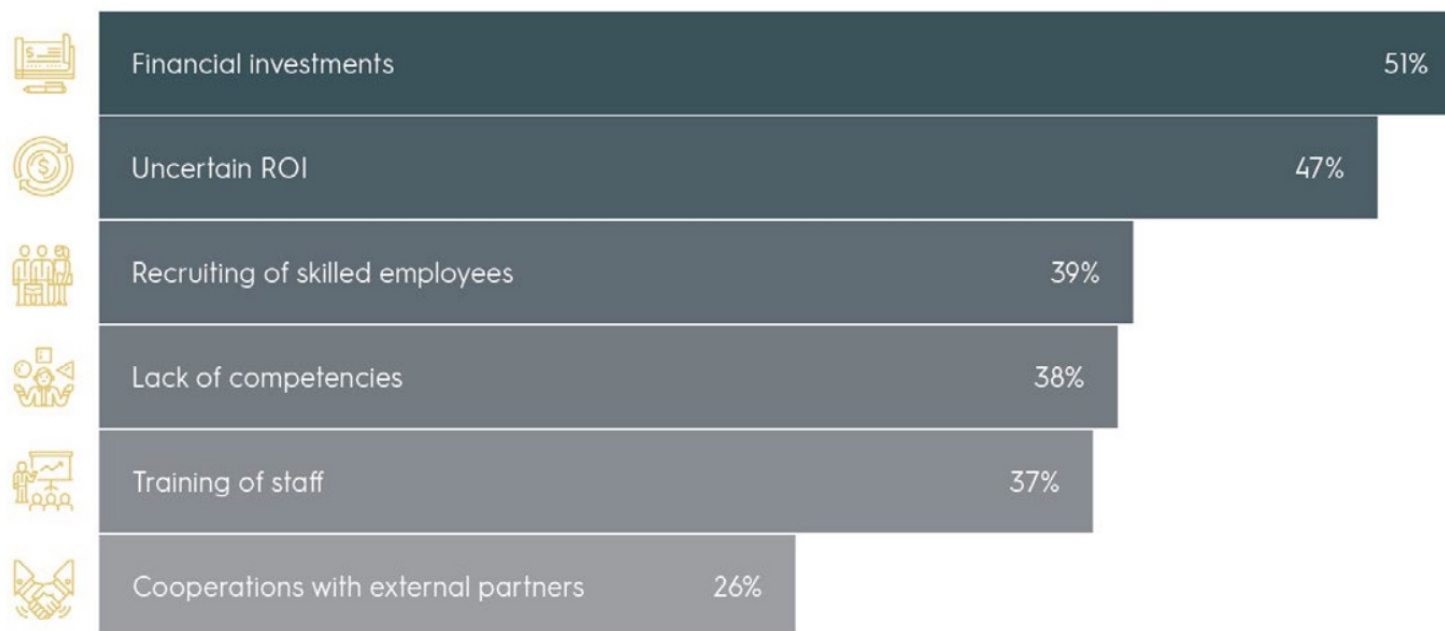
Automated Reporting
Reformatting of Articles
Text Auto-Tagging
Content Translation
Content Moderation
Chat Bots
Content Personalization
Predictive Analytics
Image Recognition

- Comprised from the findings of over six months of research
- International survey of ~300 participants, plus interviews and conversations with industry professionals,
- CEOs, editors and representatives across different functions
- Joint effort between Frankfurter Book Fair and management consultancy Gould Finch

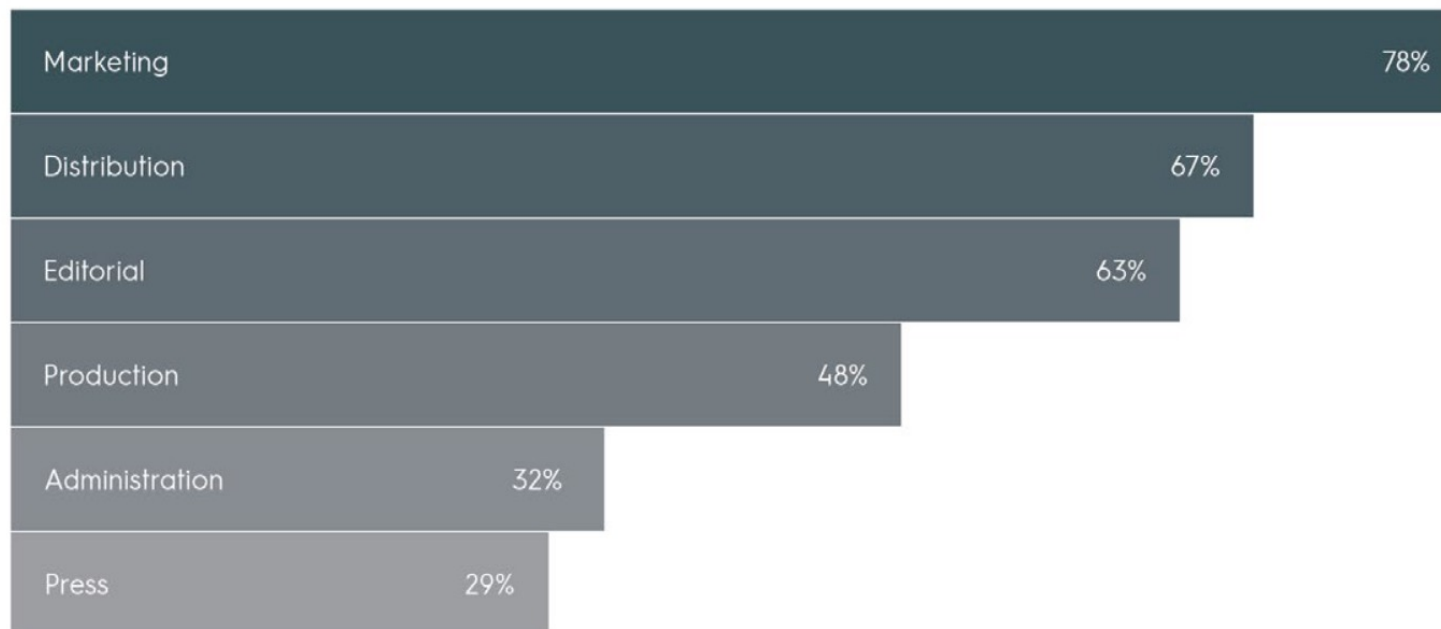
Expected impact of AI



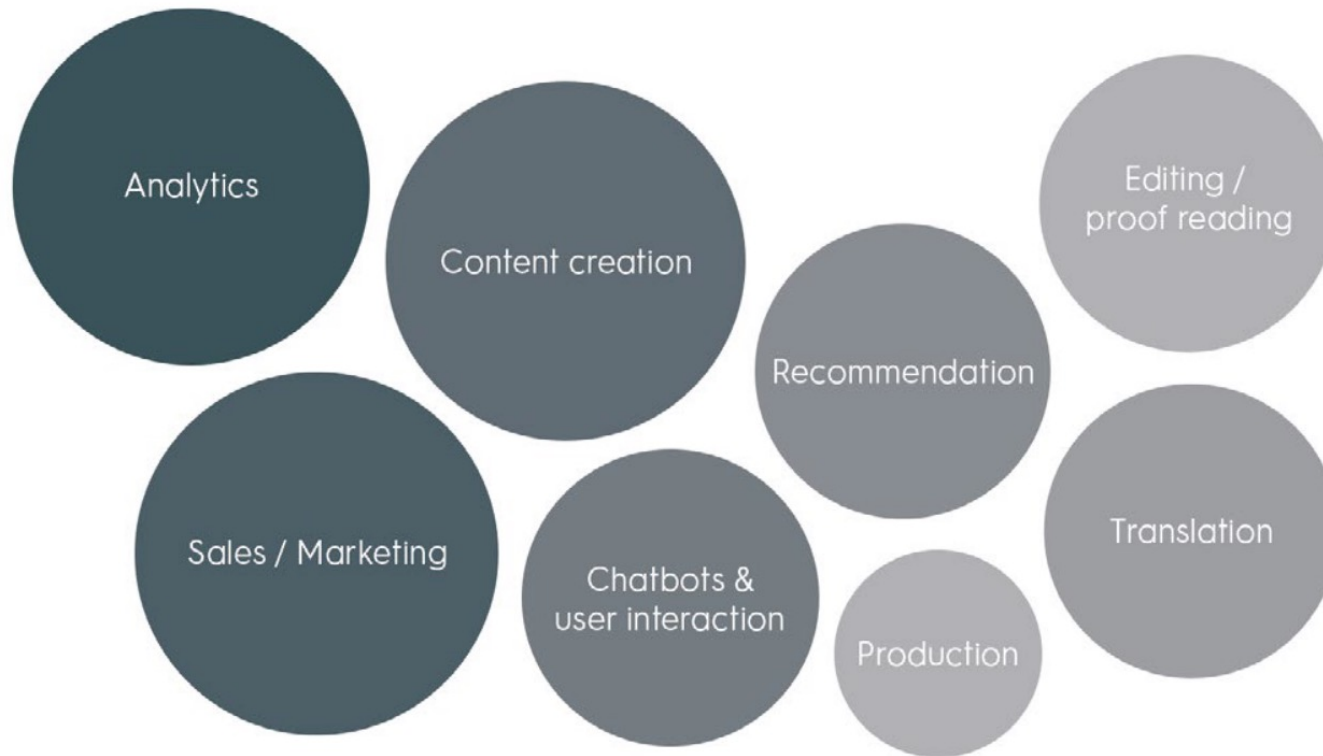
Challenges for the implementation of AI solutions



Departments that are expected to benefit from the use of AI



Departments that are expected to benefit from the use of AI





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Is AI Explainable?

Is AI Explainable?



YES!



NO!

But it's complicated!

Factors for Explaining AI



- ✓ Understand your audience
- ✓ Communicate vision
- ✓ Context to automation
- ✓ Early adoption
- ✓ Incremental implementation
- ✓ Minimal investment for ROI
- ✓ Verify results



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Change Search to Found

We are the intelligence and the technology behind world-class semantic solutions