

# The Rise of Intelligent Machines: How Generative AI is Shaping Our Future

For Discussion  
ALWIN MAGIMAY  
February 2023

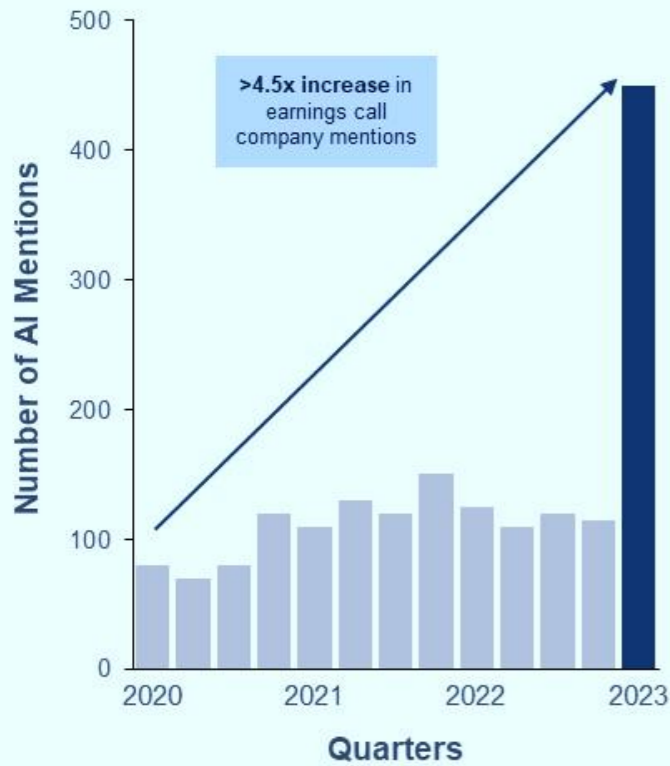




# Post our “ iPhone ” moment in Nov 2022 ...

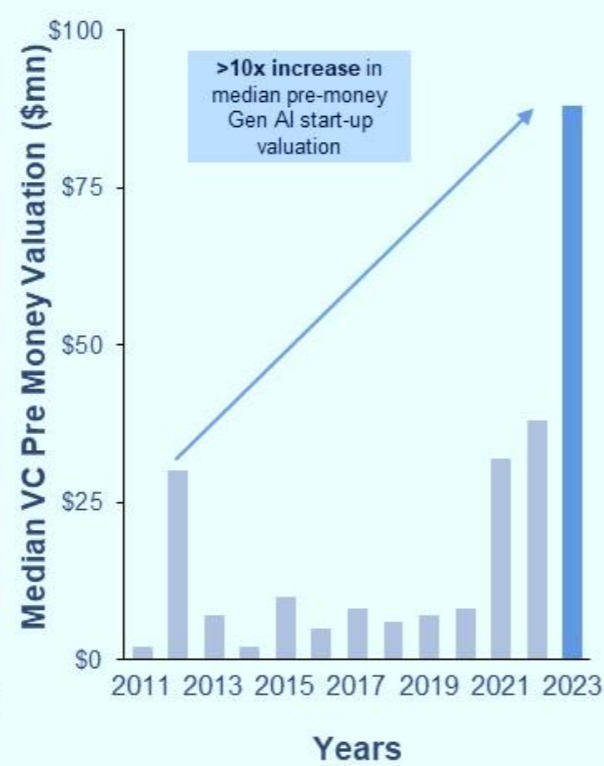
## Among Enterprises

# of AI mentions in select Tech earnings calls



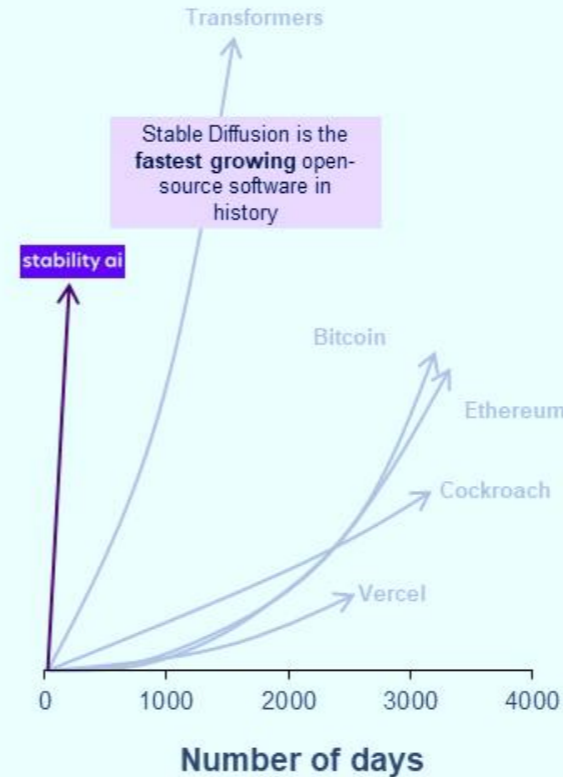
## Among Investors

Gen AI median VC pre-money valuation



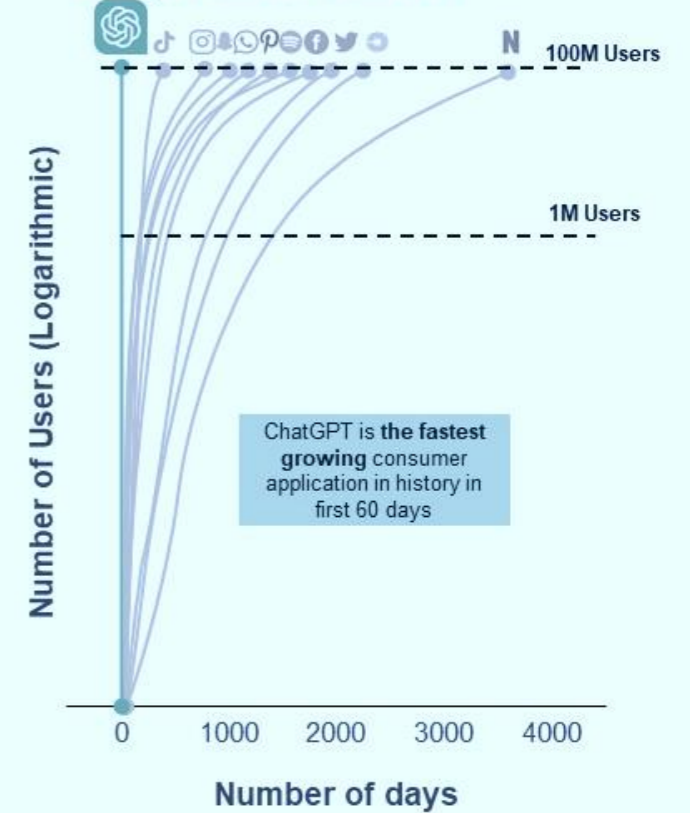
## Among Developers

# of stars on GitHub since repository began



## Among Consumers

# of days to 1mn and 100mn users



# The Rise of the Intelligent Enterprise (powered by AI) ...

1995 - 2005



## Integrated Enterprise



- ERP Systems
- Internet
- CRM Systems
- Commerce Platforms
- Business Intelligence Tools

2005 -2025



## Digital Enterprise



- Mobile Applications
- Cloud Based Services
- Data & Analytics
- Omnichannel Experiences

2025+



## Intelligent Enterprise



- AI Powered Services
- Predictive Services
- AI Powered Citizens



# Definitions to get us going ...

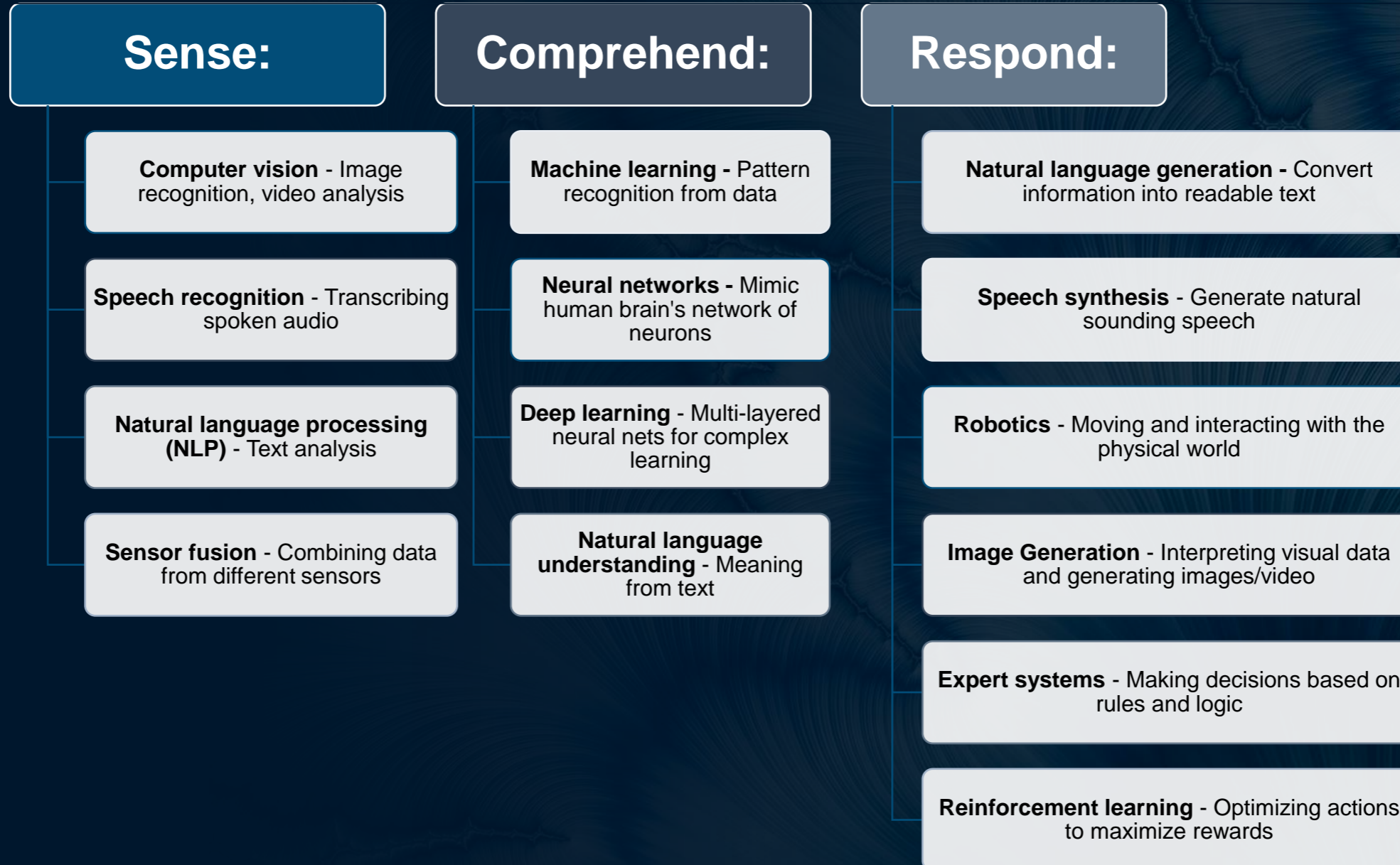
## AI

**A branch of computer science that involves creating intelligent systems or machines that can perform tasks typically requiring human intelligence, such as problem-solving, decision-making, language understanding, and learning**

## Generative AI

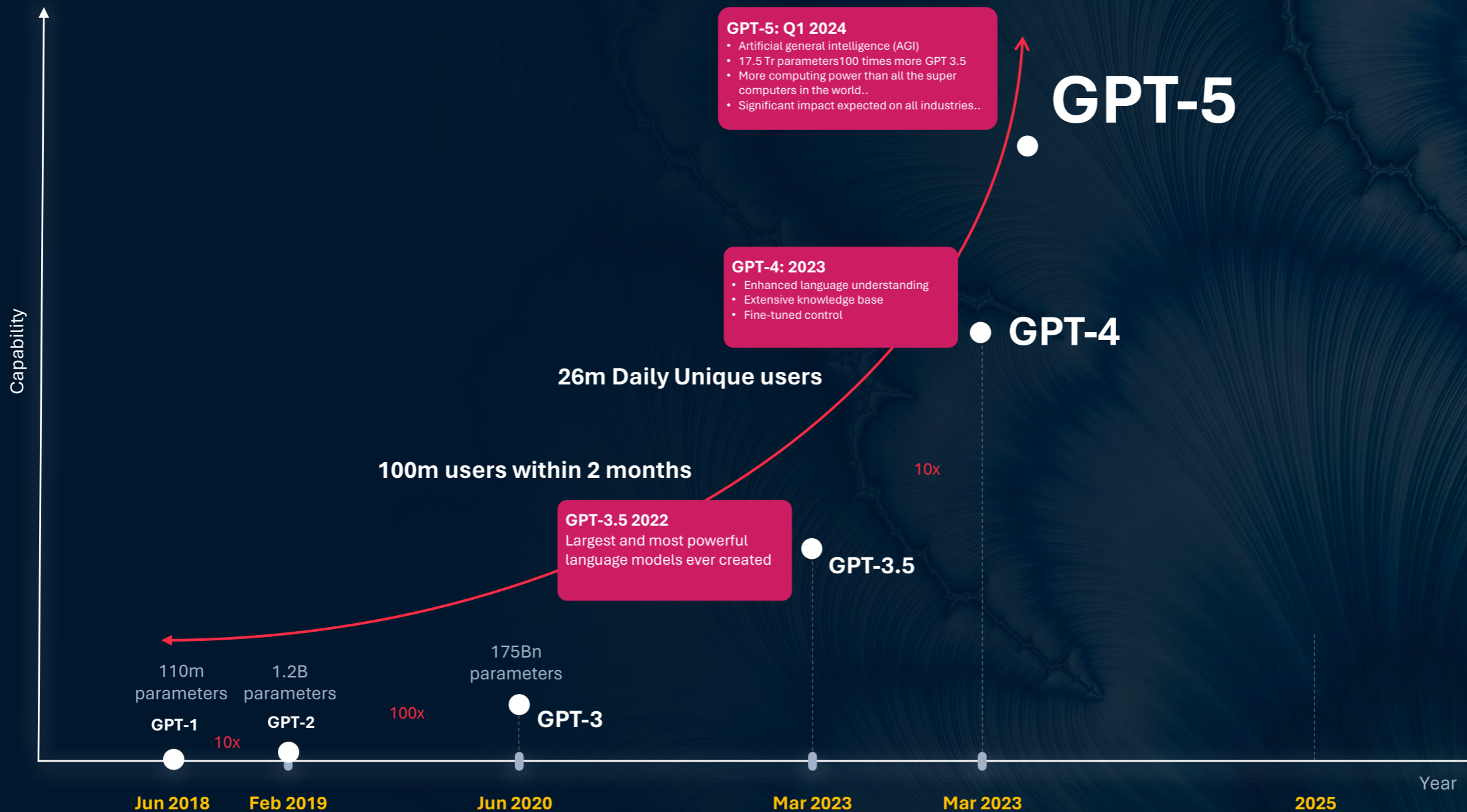
**A subset of AI that focuses on developing algorithms and models capable of generating new content, such as images, texts, audio, or other types of data, often through the use of deep learning techniques**

# Artificial Intelligence – classification of capability





# AI is on an exponential growth path ...






# This technology is going to get much more mind-blowing as it matures ...

## Image to Text

Food recipes generation

How should I make something like this?



To make this dish, you will need the following ingredients:


- \* 4 large lobsters
- \* 2 tablespoons olive oil
- \* 2 cloves garlic, minced
- \* 1 teaspoon dried thyme
- \* 1 teaspoon dried oregano
- \* 1/2 teaspoon paprika
- \* Salt and pepper, to taste
- \* 4 lemon wedges, for serving

1. Preheat the oven to 400°F (200°C).
2. In a large baking dish, toss the lobsters with the olive oil, garlic, thyme, oregano, paprika, salt, and pepper.
3. Roast the lobsters in the preheated oven for 20-25 minutes, or until they are cooked through.
4. Remove the lobsters from the oven and let them cool for a few minutes.
5. Serve the lobsters with the lemon wedges on the side

## Generative AI-Voices

### Your Complete Generative Voice AI Toolkit

currently beta access



✔ Text-to-Speech ✔ Speech-to-Speech ✔ Neural Audio Editing ✔ Language Dubbing

Resemble's AI voice generator lets you create realistic human-like voiceovers in seconds.

Clone your voice for free Request Demo

### AUDIO - GPT

BEST FREE AI VOICE TOOL!



## Text-To-Video



### INTRODUCING VideoGPT





# Generative AI is becoming ever more realistic ...

A year ago ...



Today ...



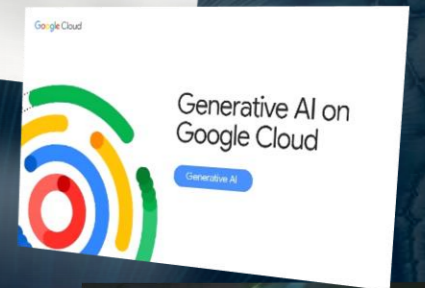
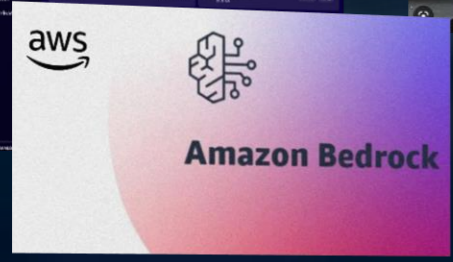
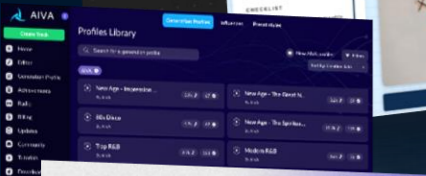
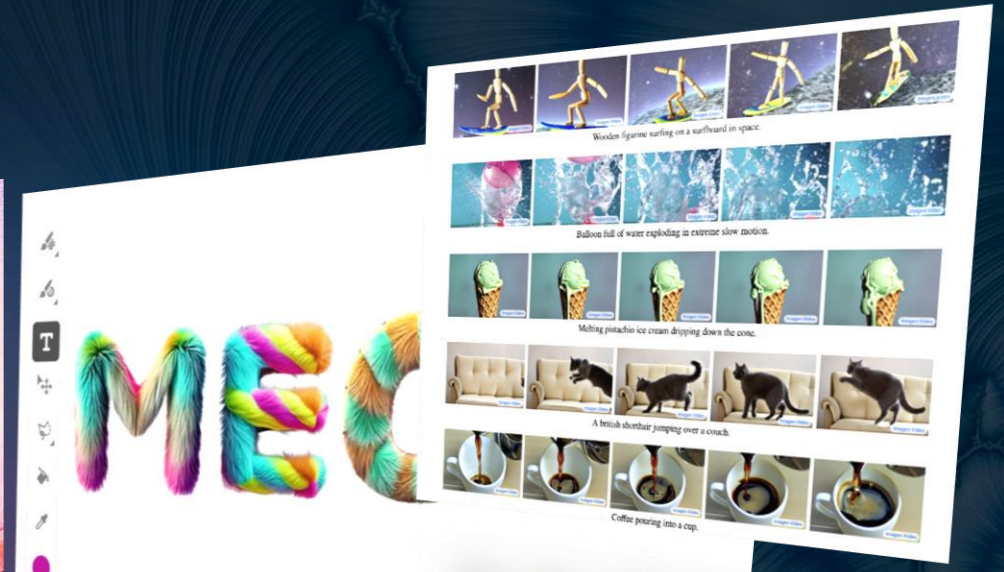
## Open AI SORA

**Prompt:** The camera follows behind a white vintage SUV with a black roof rack as it speeds up a steep dirt road surrounded by pine trees on a steep mountain slope, dust kicks up from it's tires, the sunlight shines on the SUV as it speeds along the dirt road, casting a warm glow over the scene. The dirt road curves gently into the distance, with no other cars or vehicles in sight. The trees on either side of the road are redwoods, with patches of greenery scattered throughout. The car is seen from the rear following the curve with ease, making it seem as if it is on a rugged drive through the rugged terrain. The dirt road itself is surrounded by steep hills and mountains, with a clear blue sky above with wispy clouds.





# There are more than a thousand AI tools in the market since November of 2022 ...





# How does a Generative AI system work ?

Your “prompt” is converted into a token and the system considers what is likely to come next based on its own tokens from the training data set



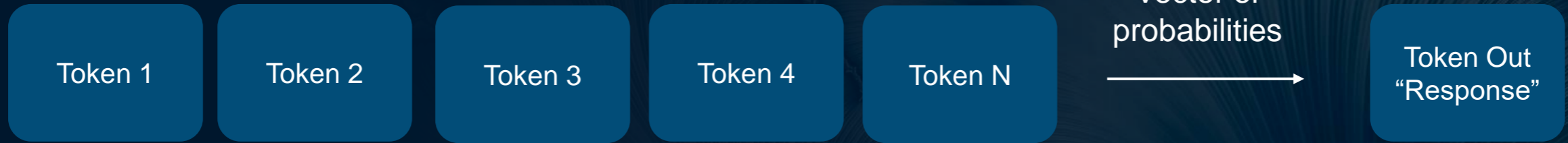
A "token" refers to a piece of a whole, so a token could be a word, a sentence, or even a paragraph, depending on the level of granularity the model is working with



# How does a Generative AI system work ?

The machine keeps analyzing the probabilities to decide the next output ... the “Transformer” in GPT looks at specific parts to work out the probability for the output token

↓ ↓  
Jack went to the gym to ...



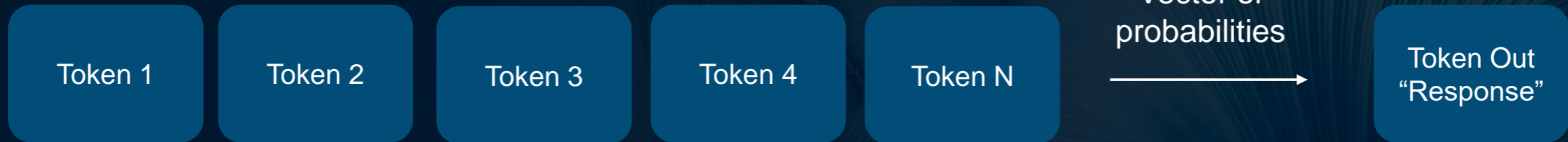
... and you can get different responses such as “get fit”, “lose weight” or “body build”



# How does a Generative AI system work ?

However, the machine can “hallucinate” at times, where the output may not make sense ...

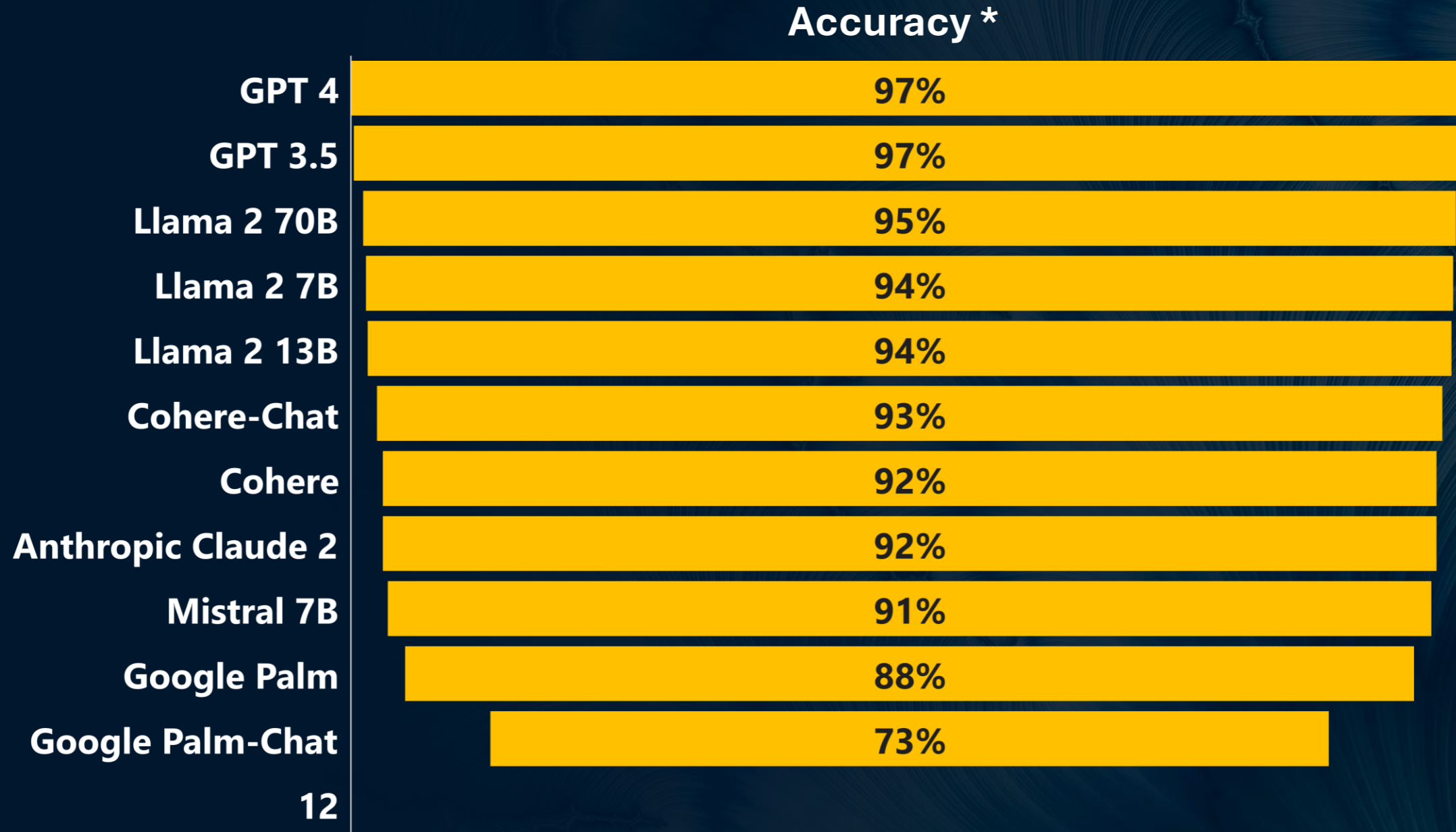
↓ ↓  
Jack went to the gym to ...



... which is why “human in the loop” is critical ...



# Would a 3% error rate be acceptable for your customers ?





# Explain to me as if I am a 10-year old \* ?



“Okay, let's say the government is like a big school, and they need a lot of stuff to make sure everything runs smoothly — like pencils, books, and even cleaning services to keep everything neat and tidy. Now, the government, just like a school, doesn't make all these things by themselves. They have to buy them or hire people to do services. But buying things and hiring people can be tricky; you have to be smart about it, so you don't waste money and make sure you're getting good stuff.

This big document is like a special guide that helps the government's "shopping helpers" decide how to buy things wisely. It has rules and tips to follow, so they do a good job. They have to check how much money they have, what kind of things they really need, and who can give them the best deal. It's like if you had five dollars to spend at a book fair — you'd want to get the best books for your money, right?

The guide also tells them to share what they learn, like if they find a really good deal or a way to get better stuff without spending more money, they should tell the other "shopping helpers" so they can do the same. This way, all parts of the government can learn from each other and get better at buying things, which is good for everyone.

And just like in school, they have to keep getting better at it, learning new things, and making sure they don't make mistakes with the money they spend”



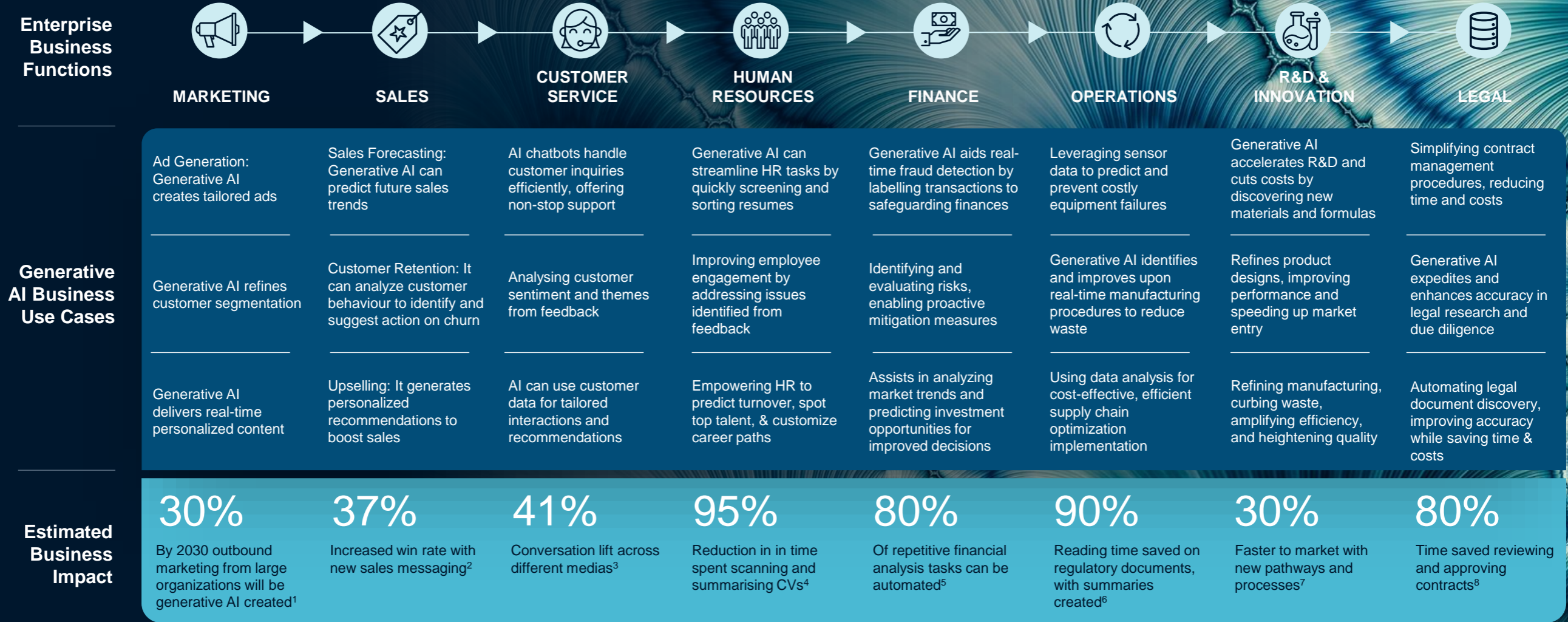
**We finally have a machine that  
knows everything in the world ...**

**... but understands nothing ...**





# ... and it is transforming business functions and unlocking value through efficiency, productivity and innovation cases



1. Gartner Predictions, 2. Gong.io, 3. Persado.com, 4. Skillate.com, 5. Arria.com, 6. PA Consulting, 7. UIPath.com, 8. Lawgeex.com .



Thinking but probably not saying ...

**Will a robot take my job ?**



It's going to be bad ... they say ...  
Like, really bad ...

Credit Analysts

**98%**

[Vote](#) [Comment](#)

AUTOMATION RISK LEVEL

**You are doomed**

or 98% probability of automation

PROJECTED GROWTH

**6%**

by 2024

Accountants and Auditors

**94%**

[Vote](#) [Comment](#)

AUTOMATION RISK LEVEL

**You are doomed**

or 94% probability of automation

PROJECTED GROWTH

**11%**

by 2024



# How bad? But it depends on your job, they say ...

Economists

**43%**

[Vote](#) [Comment](#)

AUTOMATION RISK LEVEL

**Start worrying**

or 43% probability of automation

PROJECTED GROWTH

**6%**

by 2024

Sociologists

**6%**

[Vote](#) [Comment](#)

AUTOMATION RISK LEVEL

**Totally Safe**

or 6% probability of automation

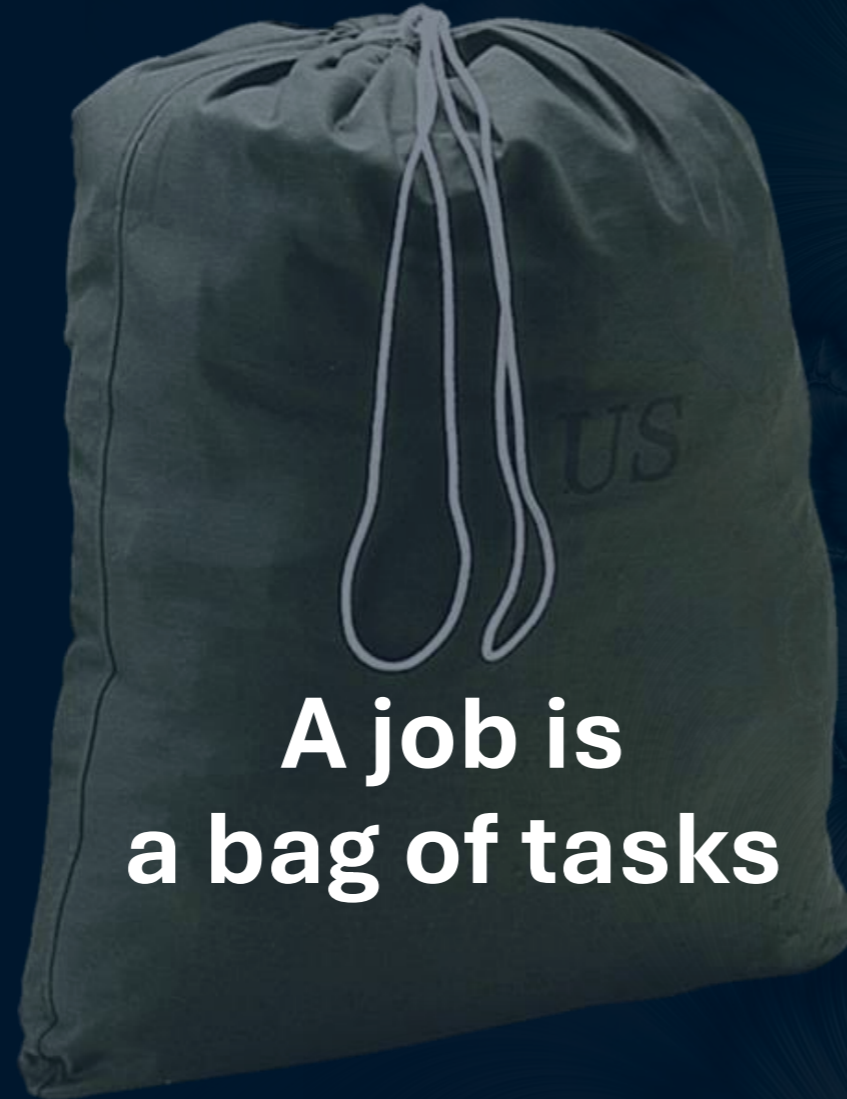
PROJECTED GROWTH

**-1%**

by 2024



## Thesis:

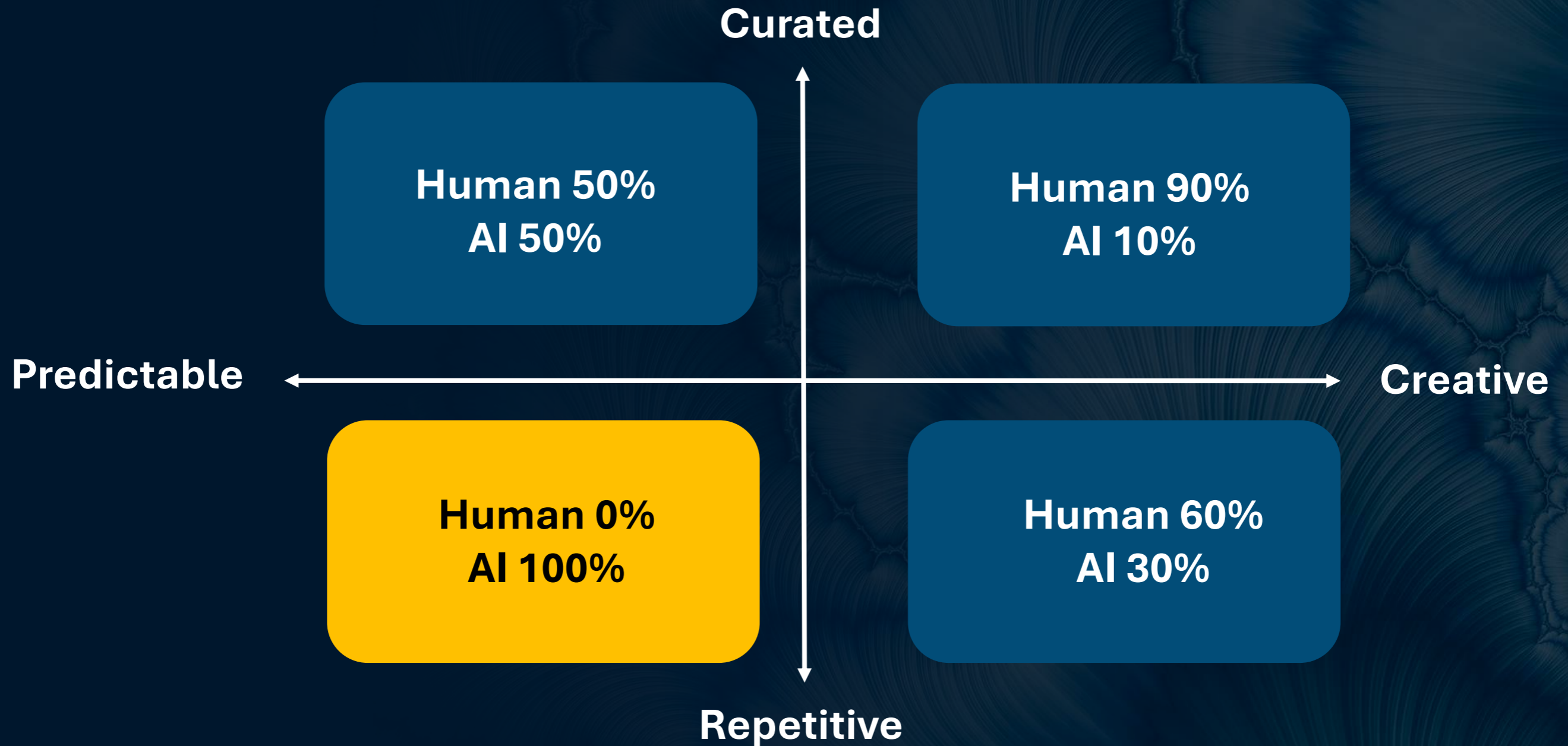


**A job is  
a bag of tasks**

**Few whole jobs will  
be lost to  
replacement by AI  
... but tools-for-  
tasks replacement  
will lighten our  
loads and transform  
jobs, organisations,  
careers**



# Don't be a "bad" robot ...





# Risks behind the magic – why AI needs to be a boardroom issue ?

## Key risks with AI

### Lack of transparency



AI models can be complex, and it can be difficult to understand how they make decisions. This lack of transparency can make it difficult to identify and address bias, errors, or other problems with the AI solution.

### Privacy and security concerns



Use of AI may involve the use of large amounts of data, which can raise concerns around privacy and data security. If data is not handled properly, it can lead to breaches of sensitive information, loss of customer trust, and legal or regulatory consequences.

### Inaccuracy and errors



AI systems are only as good as the data they are trained on, and if the data is biased or incomplete, the AI system can produce inaccurate or erroneous results. This can lead to poor decision-making or other negative consequences.

### Ethical concerns



Use of AI may raise ethical concerns, such as the use of AI in hiring or other areas where it may perpetuate or amplify bias or discrimination.

### Legal and regulatory concerns



As AI becomes more widespread, there are increasing legal and regulatory risks associated with its use. We may need to navigate complex legal frameworks, such as intellectual property laws, data protection regulations, and antitrust laws.

### Negative impacts on workforce



AI solutions can lead to job displacement or changes in job responsibilities, which can have negative impacts on the workforce. We may need to consider the potential impact of AI solutions on the workforce and work with our clients to develop plans to mitigate any negative effects.

### Limited accountability



The use of AI can raise questions about accountability and responsibility. If an AI system makes a mistake or produces negative consequences, it can be difficult to determine who is responsible. We need to work with our clients to establish clear lines of responsibility and accountability for AI solutions.

### Intellectual property



Developing AI solutions may lead to the creation of new IP such as patents, trademarks, and copyrights. The ownership and protection of this IP can be complex and may require careful consideration of various legal frameworks. The use of existing IP in the development of AI solutions may also raise issues of infringement and licensing.



## Contact our experts



With long experience in digital, data and AI, we can help you to unlock the true value of your organisation. To find out how we can support you on this journey to the intelligent enterprise, get in touch with our experts.

Bringing Ingenuity to Life.  
[paconsulting.com](http://paconsulting.com)



**Alwin Magimay**

PA Global Head of AI

[alwin.magimay@paconsulting.com](mailto:alwin.magimay@paconsulting.com)



**Martin Walker**

PA Data Management and Financial Services Expert

[martin.walker@paconsulting.com](mailto:martin.walker@paconsulting.com)