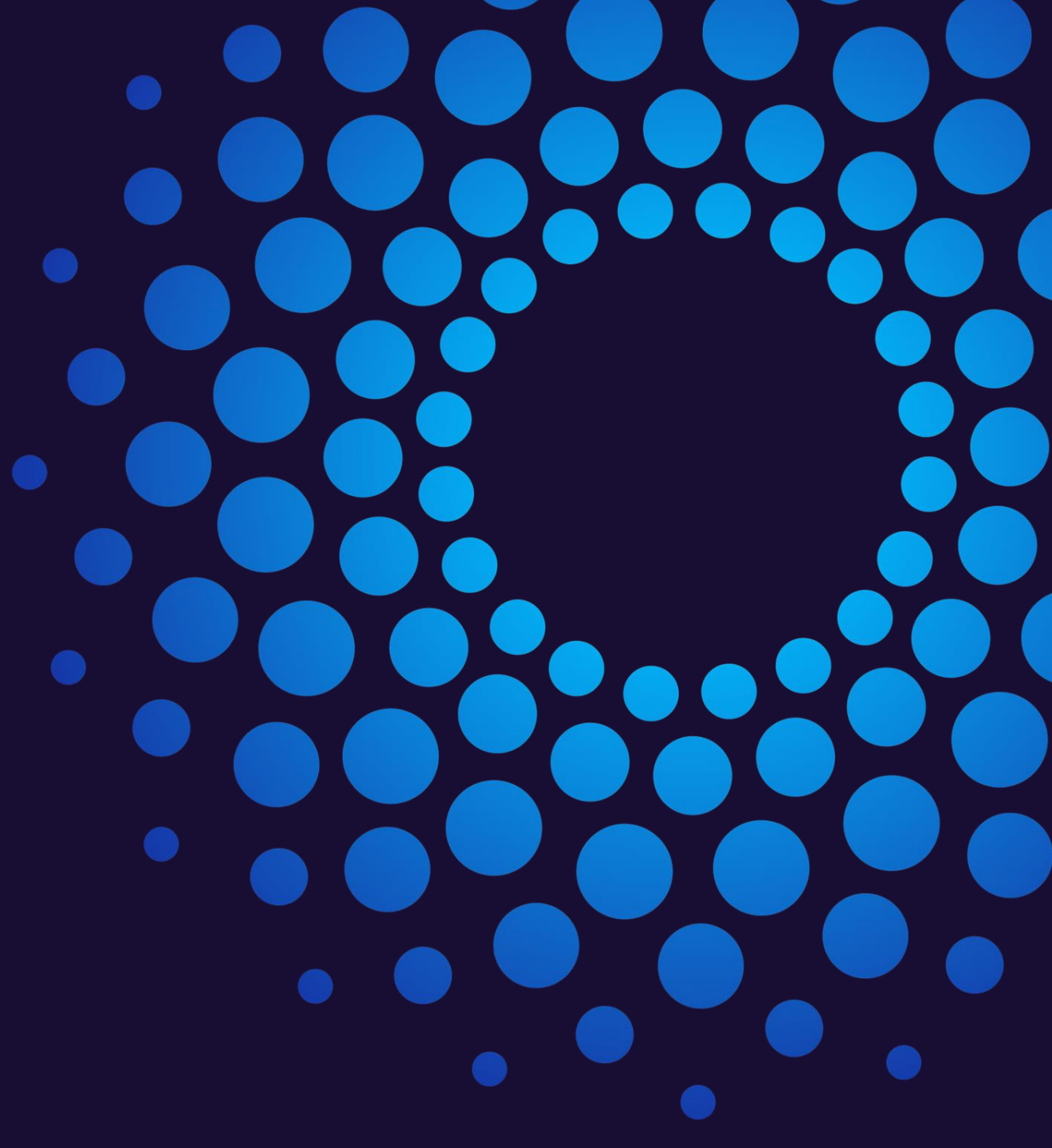


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What does the Future Hold for AI in Travel & Tourism?

TTI SUMMER Forum June 14th 2023

Andy Owen Jones MD SMARTSEER



Nearly 70 years of AI

Dartmouth Conference 1956



An attempt will be made to find how to make machines use language, form abstractions and concepts, solve kinds of problems now reserved for humans, and improve themselves. ... For the present purpose the artificial intelligence problem is taken to be that of making a machine behave in ways that would be called intelligent if a human were so behaving.

And it promised results:

We think that a significant advance can be made in one or more of these problems if a carefully selected group of scientists work on it together for a summer.

But a new focus and hope - especially in travel

- Investment
- Plug ins
- Concern
- ?

PhocusWire



**GETYOURGUIDE NABS \$194M FOR
GLOBAL EXPANSION, MORE AI
DEVELOPMENT**

PhocusWire

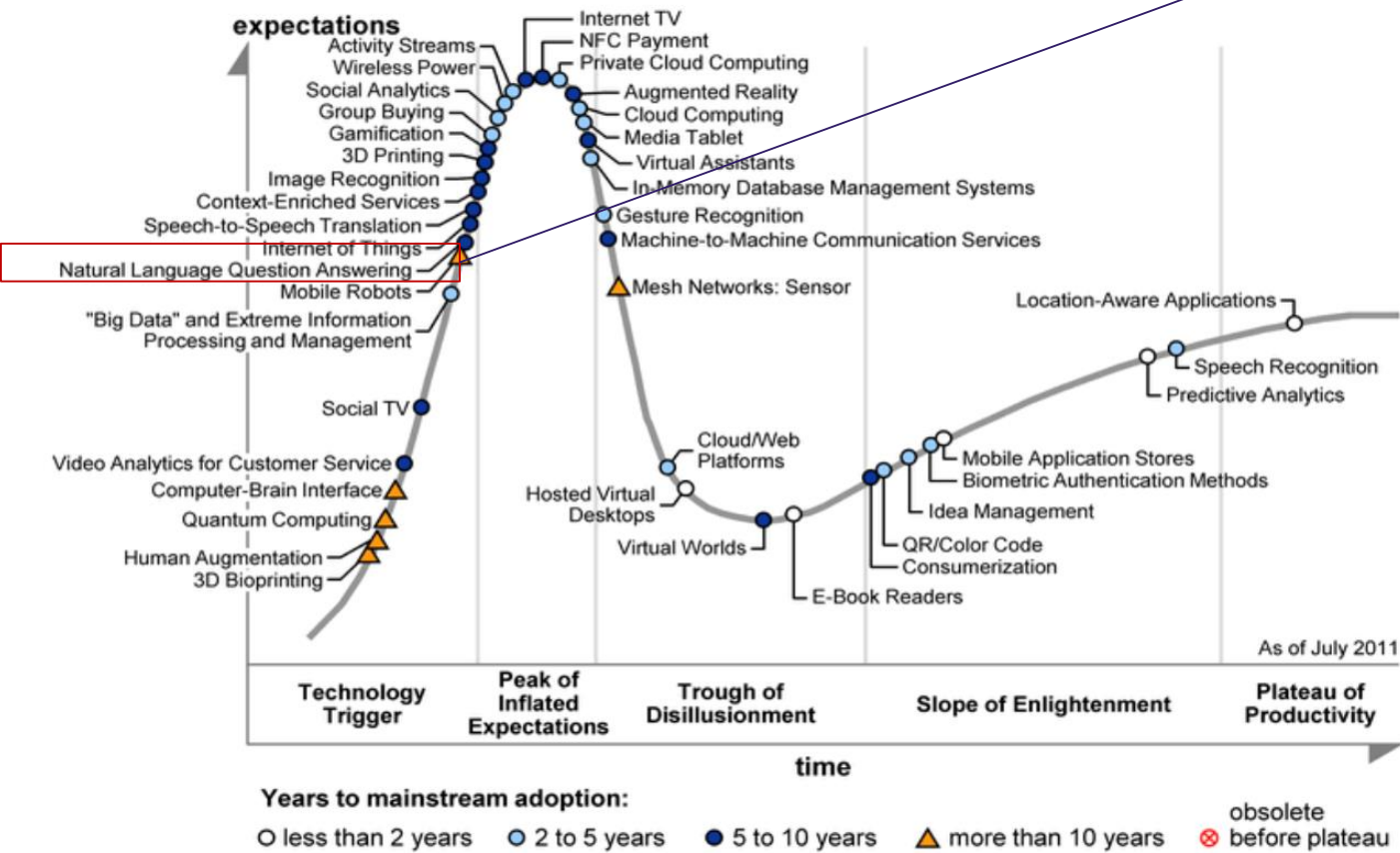


**GETYOURGUIDE NABS \$194M FOR
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Changing position in the Gartner hype cycle 2011

Natural Language Question Answering

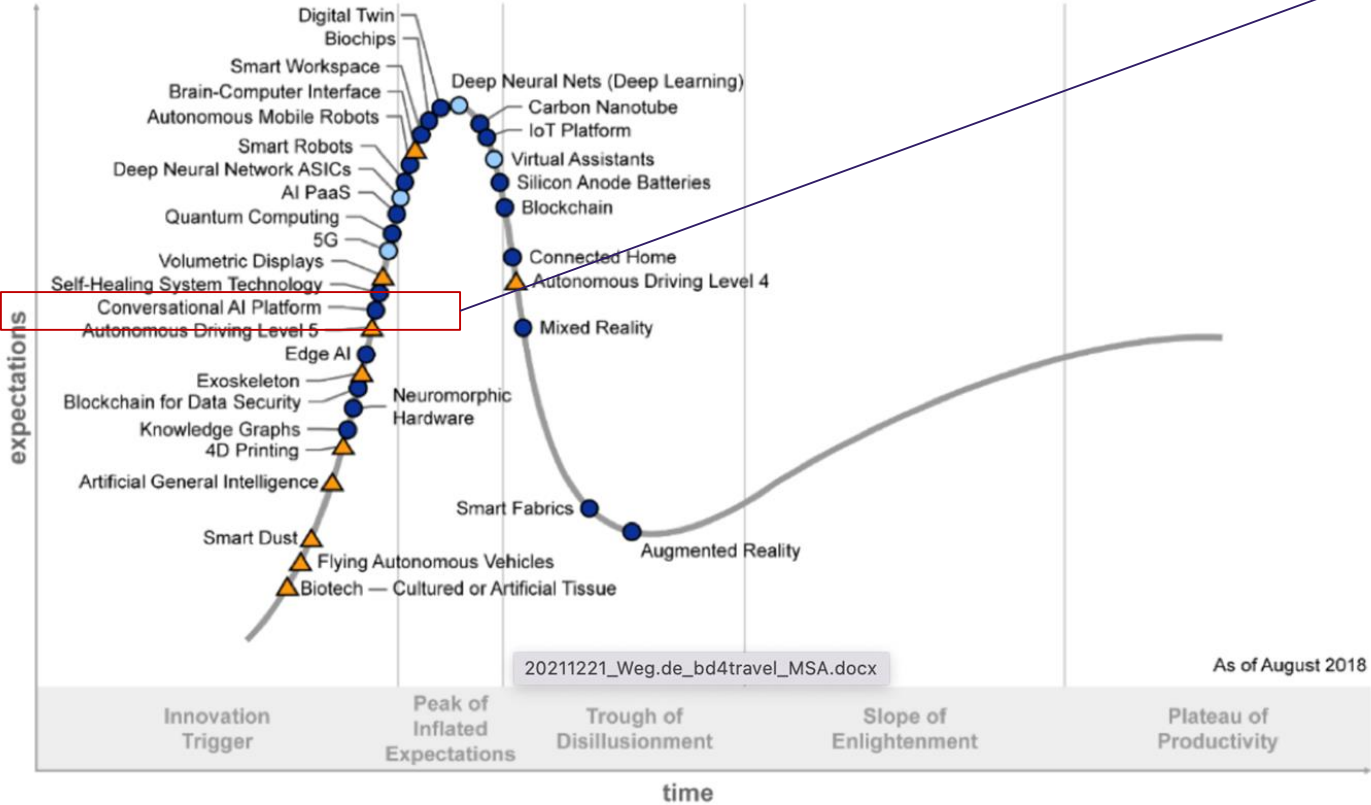


Changing position in the Gartner hype cycle 2018

Conversational AI

5 - 10 years

Figure 1. Hype Cycle for Emerging Technologies, 2018



5 Plateau will be reached:

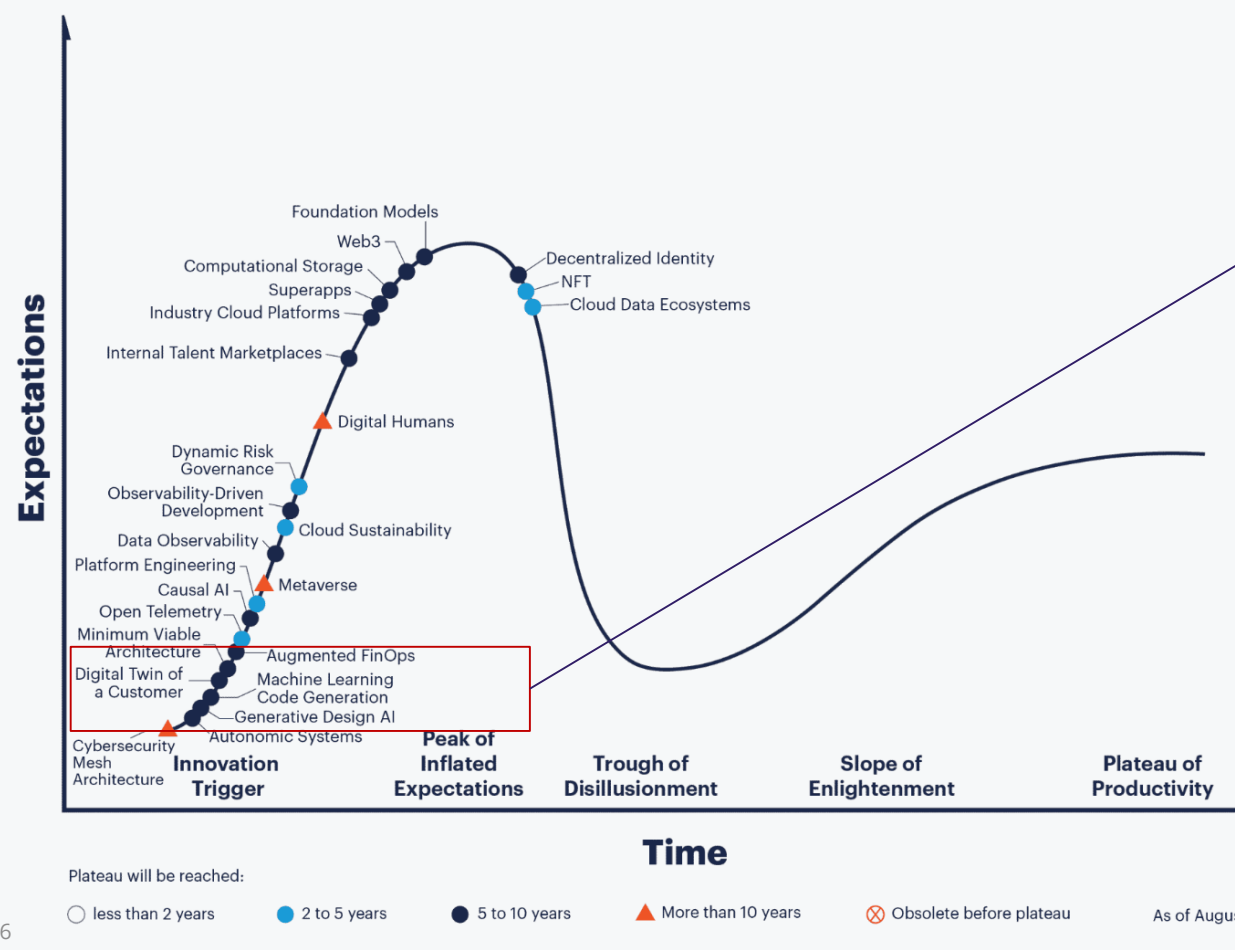
- less than 2 years
- 2 to 5 years
- 5 to 10 years
- ▲ more than 10 years
- ⊗ obsolete before plateau

Changing position in the Gartner hype cycle 2022

Generative Design AI

5 - 10 years

Hype Cycle for Emerging Tech, 2022



Emerging Tech 2023

Generative AI

Self-Supervised Learning

Human Centred AI

Digital Human

Edge AI

Knowledge Graphs

.....

Gartner

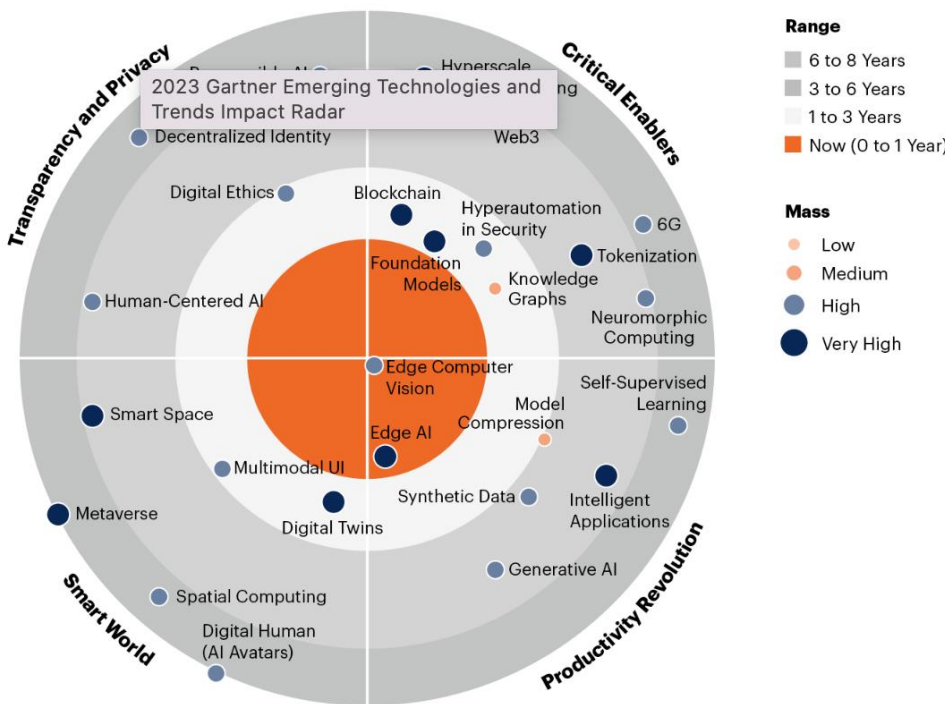
Insights

Expert Guidance

Tools

Connect with Peers

2023 Gartner Emerging Technologies and Trends Impact Radar



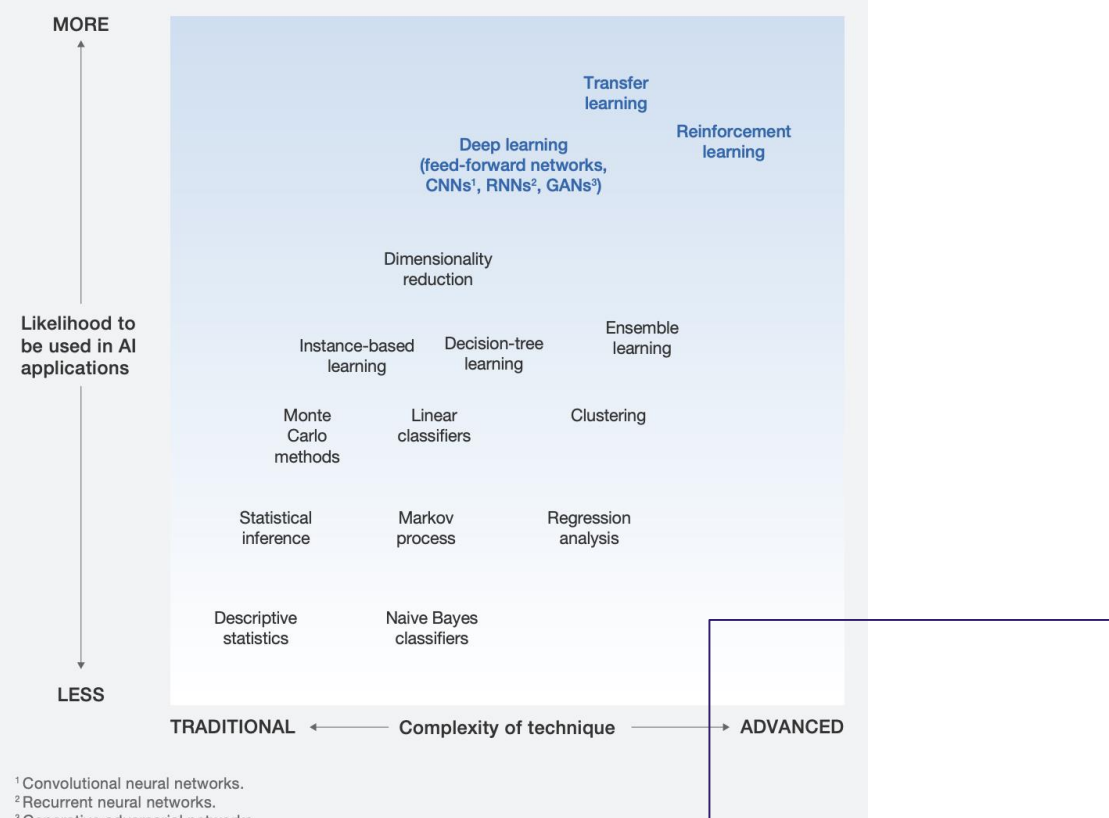
gartner.com

Available techniques are now advanced

Exhibit 1

We examined artificial intelligence (AI), machine learning, and other analytics techniques for our research.

■ Considered AI for our research



Source: McKinsey Global Institute analysis

Mainstream Tourism now working on Generative AI

- TUI
 - Began working on generative AI in April 2023
- Focus
 - Customer service through query handling
 - Operational efficiency
 - Personalisation
 - Data analytics
- Challenge
 - Speed

Pieter Jordaan, chief technology officer of TUI Group, is the latest to offer his thoughts on generative AI and its uses for the travel industry.

We began working with generative AI in ... April 2023 by officially launching the TUI AI Lab. Several initiatives started before April – pilots and trials on several use cases run by teams in different parts of the organization.

Our current work with generative AI is focused on ... four areas. We are using it to enhance customer service by developing AI-driven systems capable of handling complex queries. Secondly, we want to leverage its capabilities to optimize operational efficiency, from knowledge-base interrogation to content creation and editing. Thirdly, we want to explore its potential in personalizing travel recommendations based on an individual's preferences.

Lastly, we are also looking at the exciting prospect of conducting data analytics through conversational interfaces. This novel approach could transform the way we interact with data, making complex analysis more accessible and intuitive for all team members.

The biggest challenge for us related to generative AI is ... its sheer speed of evolution. The landscape of AI is changing at a breakneck pace, with new advancements and capabilities emerging constantly. At TUI, we want to stay abreast of these developments and discern their potential implications – including challenges around data security. At the same time, we work to effectively integrate them into our operations, which can be quite demanding.

While the inherent complexity of these advanced systems poses its own challenges, it's the rapid technological progression that truly tests our adaptability and commitment to continuous learning. The TUI AI Lab is our internal platform for bringing tech and business teams together to find solutions.



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So what?

AI will affect all areas of the value chain

Focus on one area is possibly dangerous

Generative AI

Self-Supervised Learning

Human Centred AI

Digital Human

Edge AI

Knowledge Graphs

.....

There will be a whole load of ChatGPT plug in's

New businesses (which will struggle)

Additions to existing businesses

Customer services

Content generation

recommendations?

Advertising?

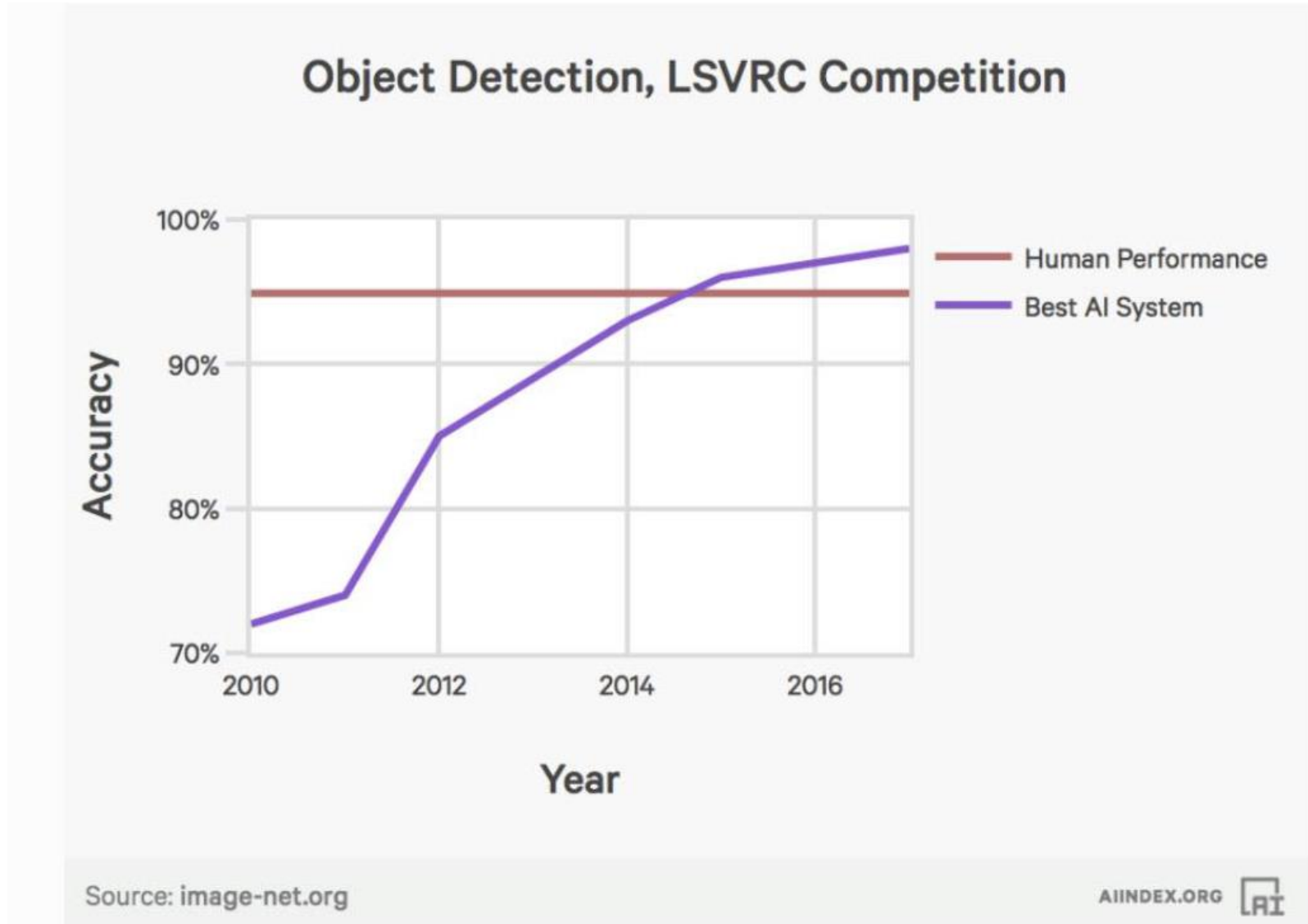
But likely to take 12 - 18 months for big cut through in results

But lots more to come....

Why?



AI v Human Learning - competence changed years ago



AI will eat travel technology....

Exhibit 3

In more than two-thirds of our use cases, artificial intelligence (AI) can improve performance beyond that provided by other analytics techniques.

Breakdown of use cases by applicable techniques, %

Full value can be captured using non-AI techniques

15

AI necessary to capture value ("greenfield")

16

AI can improve performance over that provided by other analytics techniques

69

Potential incremental value from AI over other analytics techniques, %



Source: McKinsey Global Institute analysis

Why is travel ripe for change?

- Travel is a data business
- Most of the knowledge in travel is in the **form of rules**
- Travel works on averages - the frequency of sampling is low
- Most of the data in travel has not yet been analysed - but it is now being collected

We need to be faster, better, more precise (rules cannot cope)

Historic data is now less **meaningful** in terms of predicting what is next

Product proposition needs to reflect the very **latest regulations and demand**

Desire to fight for every single customer - **customer centrality** at a new level

Can't afford man power to maintain rules based approaches - **cost effectiveness**

4 Pillars of Relevance

Realtime

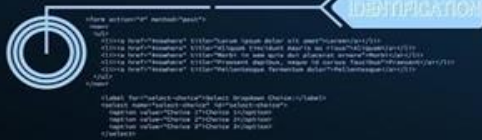
Dynamic Products

Individual Users

Smarter ways to adjust

Serious transformation means new ways of measuring

Joseph Stiglitz



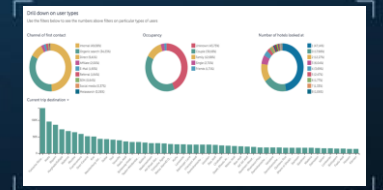
What you measure
affects what you
do.

If you don't
measure the right
thing, you don't do
the right thing.

IDENTIFICATION

Andy Owen-Jones

If you keep
measuring the
same thing, you
will get the same
result you had.



We challenged ourselves to measure new elements:

- Audience value
- Lifetime value
- True attribution
- Offers suppressed
- ...

Throw away the rule book?

AI to take you that
step further



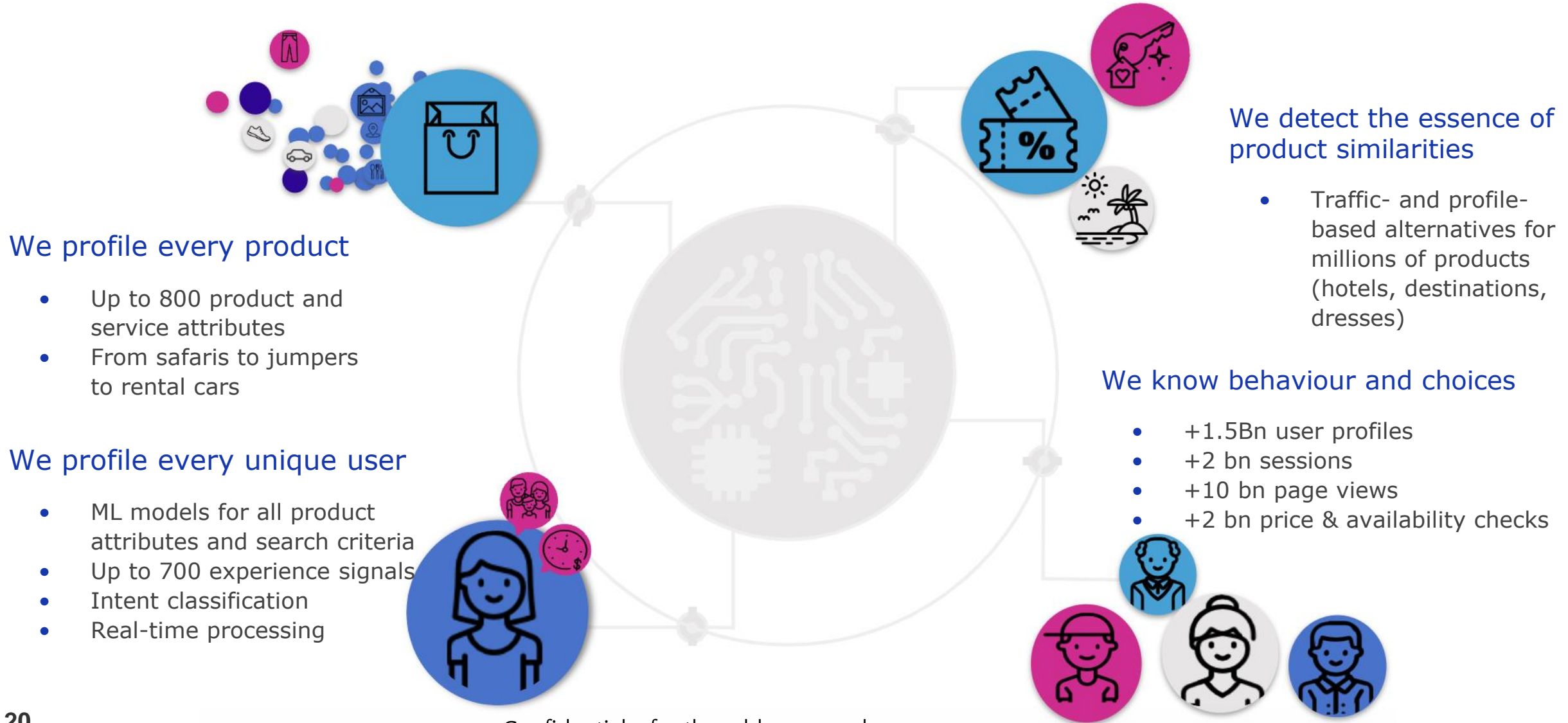
Institutional
knowledge

Rules cannot get you
where you want to go

Getting the balance right !



Powerful uses of large models



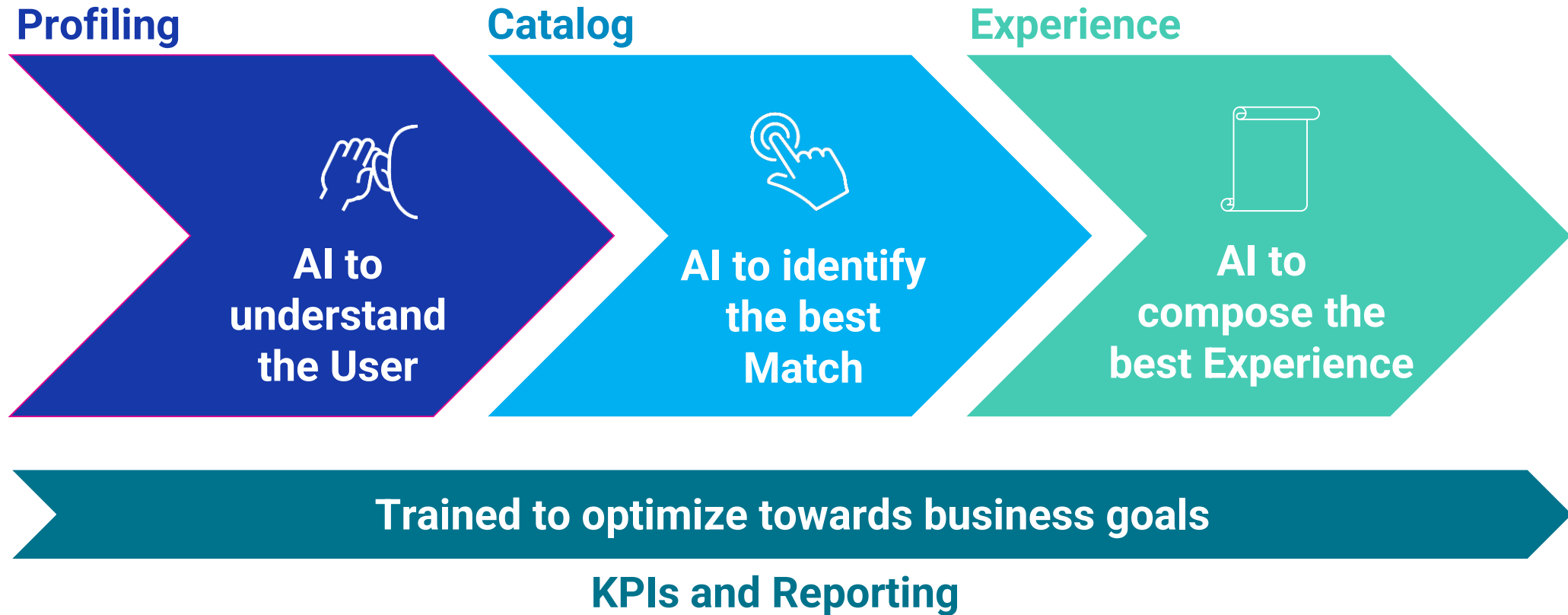
Powerful uses of large models

Large models favour large players

& Tech players

Fully AI driven Approach

Orchestration between different use cases



Conclusions



- All areas of the value chain can be optimised by AI
 - First focus is to really understand your value and position
- The focus on generative AI is one element - the gatekeepers are likely to dominate this
 - Google, Apple, MS, Meta
 - But there will be a lot of noise
- Real value will take 12 - 18 months for travel companies with some disillusionment along the way...
- The organisational challenge is as big as the tech challenge
 - What you measure and value will drive you



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Thank you