

Trevor Dunne

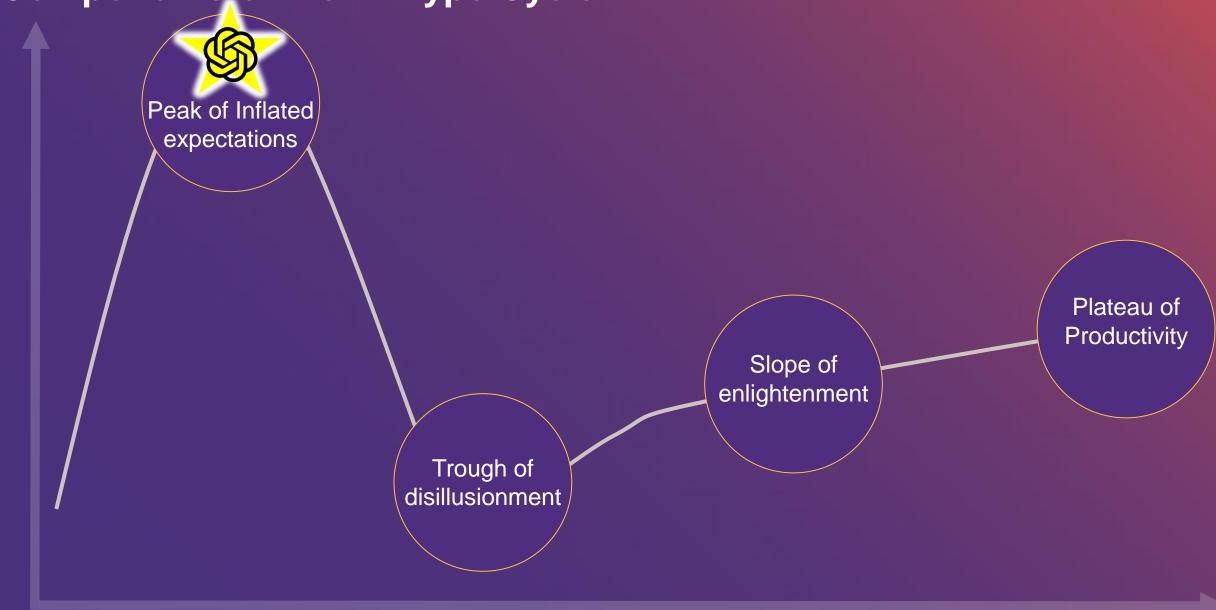
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Components of the Al Hype Cycle











"Any sufficiently advanced technology is indistinguishable from magic."

Arthur C. Clarke

ARTIFICIAL INTELLIGENCE

MACHINE LEARNING

Discriminative Al

Predictive Al

Generative Al



Artificial Intelligence

The field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence.



Machine Learning

Subset of AI that enables machines to learn from existing data and improve upon that data to make decisions/predictions.



Generative Al

Create an entirely new written, visual and auditory content given prompts or existing data

ARTIFICIAL INTELLIGENCE

MACHINE LEARNING

GENERATIVE AI

LARGE LANGUAGE MODELS







Transformer



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Generative Al

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"The transformer is a way to capture interaction very quickly all at once between different parts of **any** input. It's a general method that captures interactions between pieces in a sentence, or the notes in music, or pixels in an image, or parts of a protein.

It can be purposed for any task."

Transformer co-inventor Ashish Vaswani









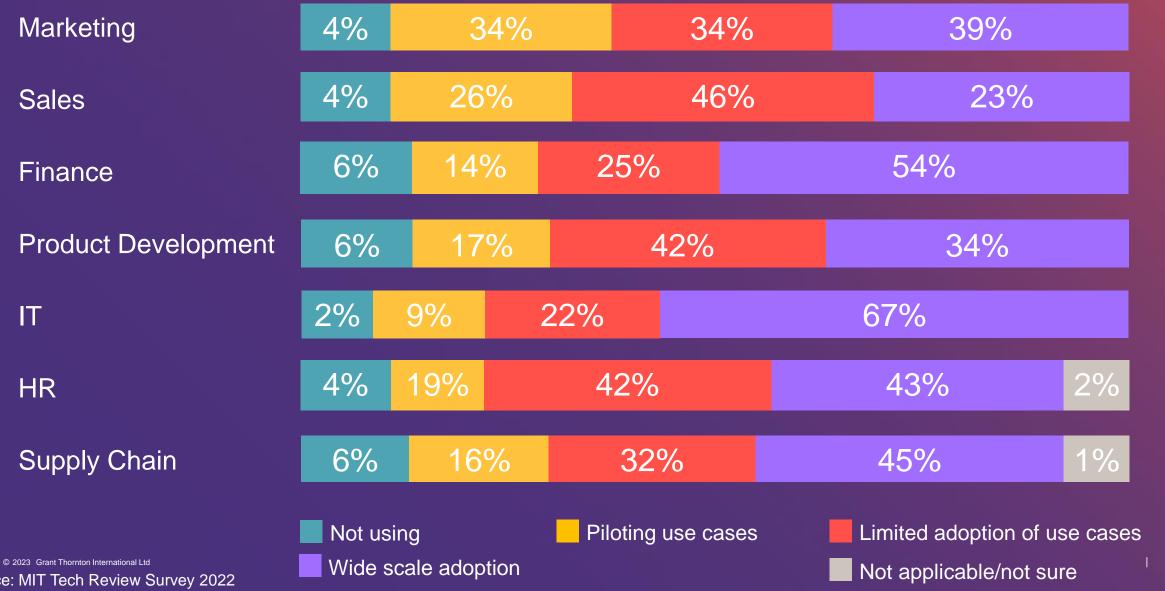
"The pace of change has never been this fast, yet it will never be this slow again..."

Justin Trudeau



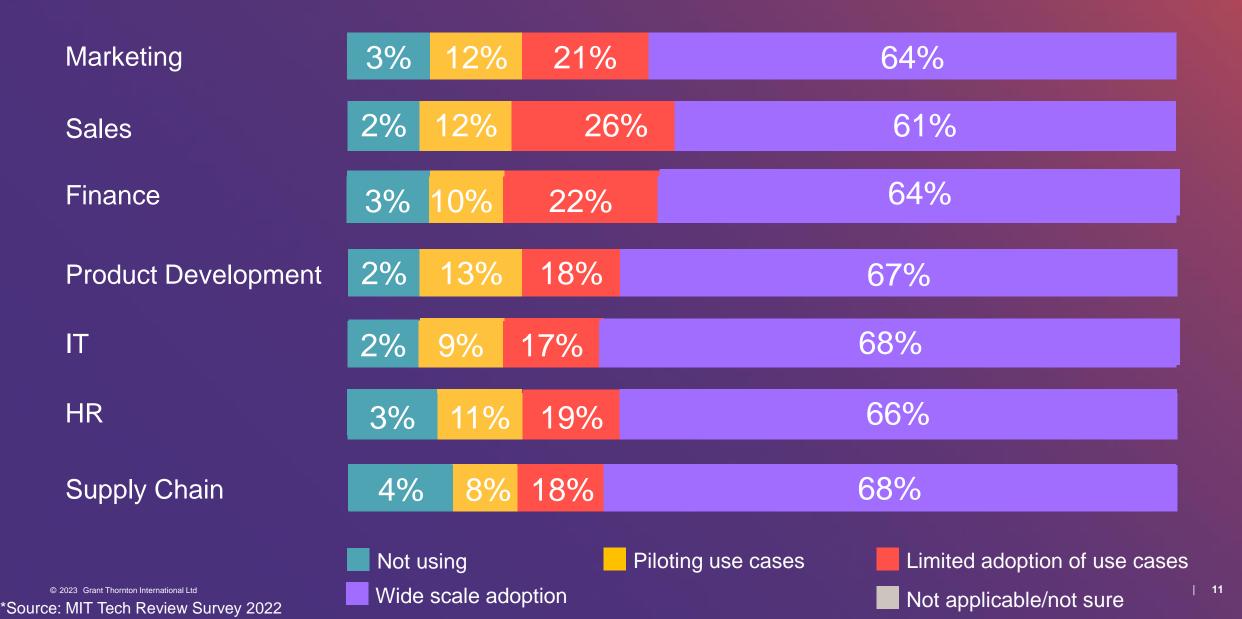


Al Adoption by Department (2022)





Al Adoption by Department (2025)



2025

70%

sustainable & ethical use among leaders' top concerns

35%

Will appoint a Chief Al Officer

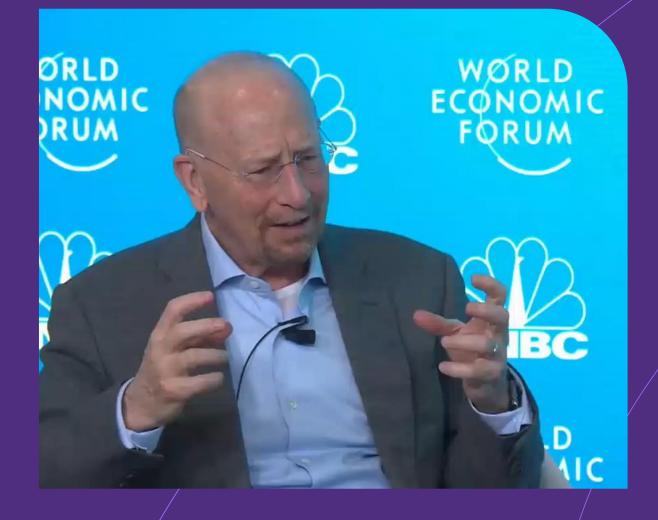
30%

of marketing messages will be from GenAl

"7%—or nearly \$7 trillion—increase in global GDP attributable to generative AI, and the firm expects that two-thirds of U.S. occupations will be affected by AI-powered automation"

Goldman Sachs

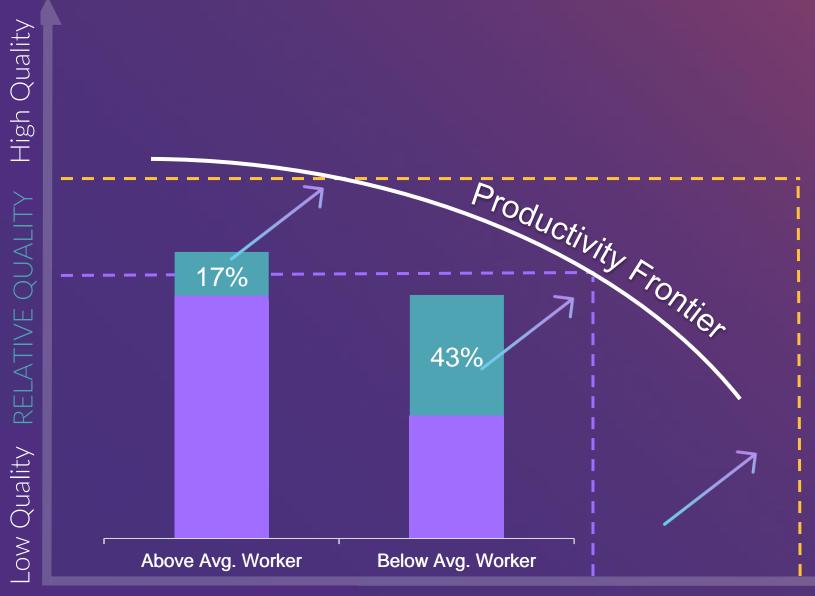




"Al won't take your job. Somebody using Al will take your job...."

Richard Baldwin– Professor of International Economics at IMD Business School

Productivity Curve & Cost of Quality output



High Cost



"There are decades when nothing happens; and there are weeks when decades happen"

Vladimir Lenin



With so much change happening it does feel like your entering a dark tunnel, unclear as to the destination.

Where do you start and what are the stops along the way?



1ST Stop: AI VISION & STRATEGY

- Vision for AI and define your strategy for achieving it.
- Identify the business problems and the opportunities it can create.
- Define the key performance indicators (KPIs) to measure success



Al Value Dimensions Model*



Best Total Cost

Operational Product

Excellence Leadership

Best Product

Threshold Value

Customer Intimacy

Best Total Solution

*Treacy and Wiersema Model

2nd Stop: POC - Where to Start

- Having considered your Vision and Strategy, where do you start with a Proof of Concept
- What are the considerations and what data do I need



Discover Workshop









1

Discovery Workshop

- Using the Treacy and Wiersema model, as an example, consider and prioritise where your organisation should focus
 - Create a potential list of candidate problems to solve.
 - Utilising a 9 box grid or similar approach, select primary and secondary candidates.

Discovery Workshop



Proposal Development



Prototype Building





Report & Review

2Proposal Development

- Develop a proposal based on Primary Candidate for a proof of concept and define how success will be measured
 - Review the secondary candidate where applicable
- The goal is to ensure that our collaborative project not only yields a swift return on investment but also continues to deliver sustained value over time

Discovery Workshop



Proposal

Development



Prototype Building





Report & Review

3

Prototype

- Craft a detailed strategy, allocates responsibilities, and set a timeline.
 - Develop a prototype reflective of the end goal and review.
- Implement and develop the prototype into a scalable proof of concept.

Discovery Workshop





Prototype Building





Report & Review

Integration & Deployment

- Monitor the success of the proof of concept and evolve where necessary
- Identify and implement opportunities for integration with existing systems and applications.

Discovery Workshop



Proposal

Development



Prototype Building





Report & Review

5 Report & Review

- Report and review the findings from the proof of concept.
 - Determining the viability based on ROI.
 - Identify opportunities for future expansion.
 - Consider proof of concepts for secondary candidates



What can LLMs do?

Taking on Text-based Tasks

Summarisation	Question	Sentiment	Metadata
	answering	analysis	extraction
Write code	Natural language interpretation	Generalised reasoning with unstructured data	Autonomous decision-making



Grant Thornton

What can LLMs do?

Taking on Text-based Tasks

Summarisation

Question answering

Sentiment analysis

Metadata extraction

Write code

Natural language interpretation

Generalised reasoning with unstructured data

Autonomous decision-making

What can't LLMs do?

- They're not databases
- Hallucinations
- Knowledge gaps
- They don't know everything



Tell me how dinosaurs successfully built a civilization in the Cretaceous and how we are already able to prove it today.

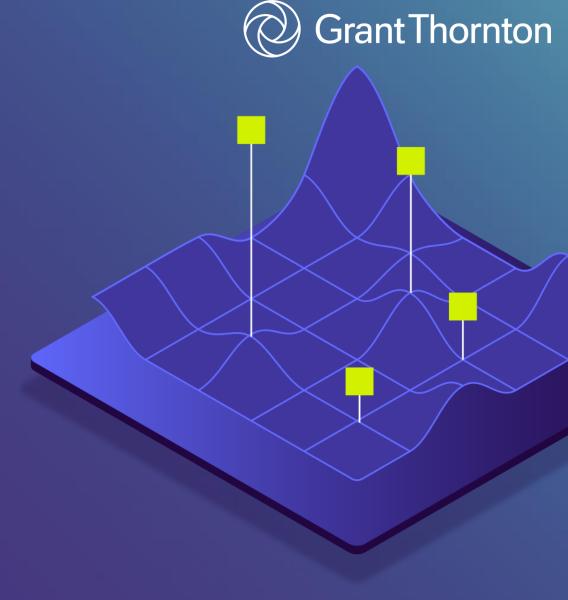
Dinosaurs in the Cretaceous period were able to build a successful civilization by living communally and by developing a variety of skills and technologies. Dinosaurs lived in colonies and had to rely on each other for protection, food, and shelter. They had learned to use tools and artefacts, to communicate, and to build structures. They had developed an understanding of their environment and the ability to adapt to changing conditions.

Evidence of their civilization can be found in fossil remains of their dwellings, tools, and other artefacts. Dinosaurs may have built complex structures such as nests, burrows, and shelters, which have been preserved in the fossil record. They also left behind evidence of their hunting and gathering activities, such as fossilized focsprints

and the remains of previanimals. Some species of

Overcoming Limitations

- "Grounding"
- Relying on "in context learning"
- Prompt Engineering
- Asking in specific patterns produces much better results
- Retrieval Augmented Generation (RAG) Vector DBs





How are businesses adopting LLM's?

- LLM Assistant Chat
- Bring your own Data
- Autonomous Agents





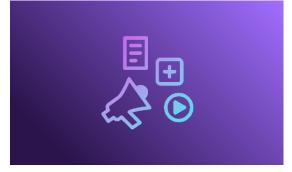
LLMs enable automation that wouldn't have been possible 12 months ago.

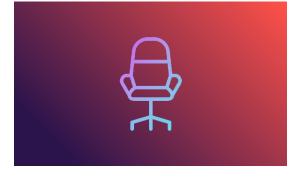


Businesses can save money & time by automating complex tasks with LLMs.

AI CAN HELP WITH TASKS SUCH AS:









Advanced Automation

Content Generation

Desk-based Research

Search & Discovery

Processing
unstructured data
sources such as
emails, documents,
PDFs, Databases

Summarising and generating new content based on existing internal knowledge.

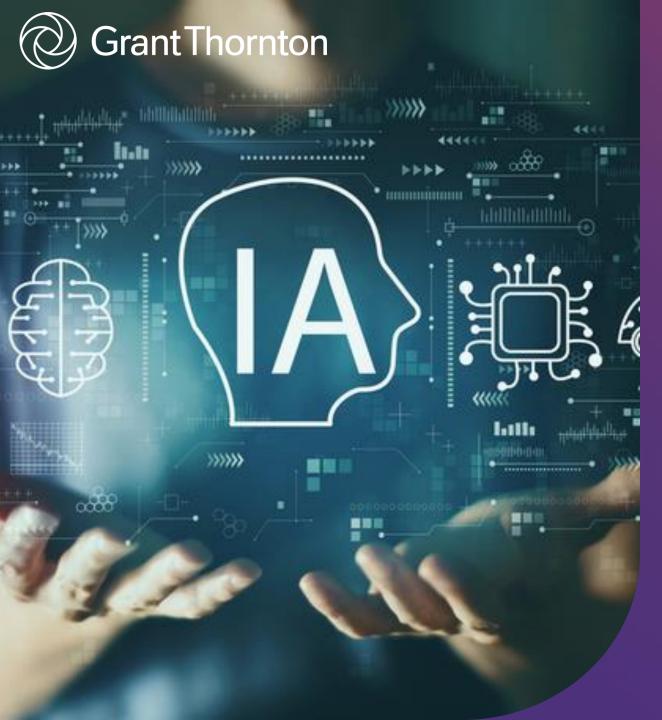
Expedite knowledge extraction to identify critical intelligence, insights, themes and topics.

Search internal and external data sources based on sentiment and topics instead of single key words.

DESK-BASED RESEARCH

- Collect evidence about specific entities from the web
 - Evaluate search results for "entity"
 - Determine if a specific attribute appears to be true about the entity
 - Return results to user about confidence of the attribute
- GPT4 plus:
 - Extensive and verbose prompt
 - Clear specific guidelines
 - Self reflection step on adherence to guidelines
 - Very good accuracy





CONTENT GENERATION

- Ingest internal documents
- Input LLM chain
- Deconstruct and augment user question into Al semantic and text searches for context
- Use context to generate reference data
- Self critique output according to guidelines
- Output LLM chain
- Create meta prompt to turn context into answer to user question
- Return generated content for user review

WHAT DOES THE FUTURE HOLD?



- Businesses that adopt this technology will lead
- LLM adoption in text-based workflows (initially)
- Multimodal models will enable seamless interaction of image/text processing
- More complex tasks can be delegated
- Al agents will unlock huge value

3rd Stop: Al Fundamentals

- Establish the governance, processes, and roles required to manage your AI initiatives.
- Define the decision-making processes, the roles and responsibilities of the different stakeholders, and the policies and procedures that will govern your AI initiatives.



AI Fundamentals

How can I deliver consistently and track success?

Vision & Strategy Delivery Model AI Operating Model **Enterprise Al** Capabilities Change Data Management & **Ethics** & Technology Security & **Operations**

What is the overall vision for the impact AI? What shifts are need to responsibly scale across the organisation?

How do ready the organisation to embrace an AI culture built on trust and ethics

Which models, data and deployment options are best suited for my needs





It's not just about Gen AI, It's about wider AI

- It's not just about AI, it's about a wider set of solutions
- It's not just about the Technology it's about Strategy, Operating Model and Culture

2 Speed approach

- PoCs are a great place to start (and deliver wider benefits)
- But Vision, Strategy and Operating model need to be addressed

Key enablers

- People: capabilities and adoption
- Data: but don't let it paralyse you into inaction





Do not wait to strike till the iron is hot.... make it hot by striking



Al Product Catalogue

1.



Discovery & Proof of Concept

2.



Leadership Education Alignment & Al Vision

3.



Scaled Implementation

4.



Ethical Al Governance

Thank You

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