ChatGPT in the Ivory Tower: Navigating Conversations with Academic Staff

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Explainable AI (XAI)



Photo by Emily Morter on Unsplash

Making Large Language Models More Explainable

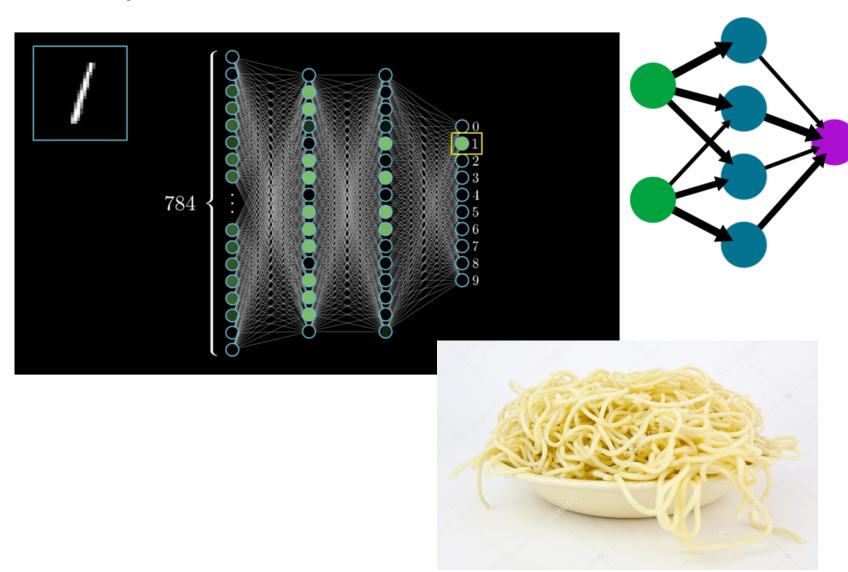
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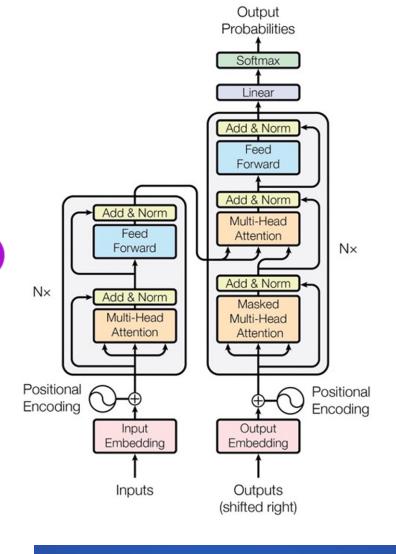
"if we're going to trust large language models (LLMs), we need to better understand how they arrive at their answers....This touches on one of the key issues with LLMs — their lack of explainability. They're so complex that they're basically black boxes, and we're not sure how they came up with their answers. The more sophisticated the model, the less transparent it becomes. This is the opposite of what is needed — explainable AI (XAI) where the responses can be explained."





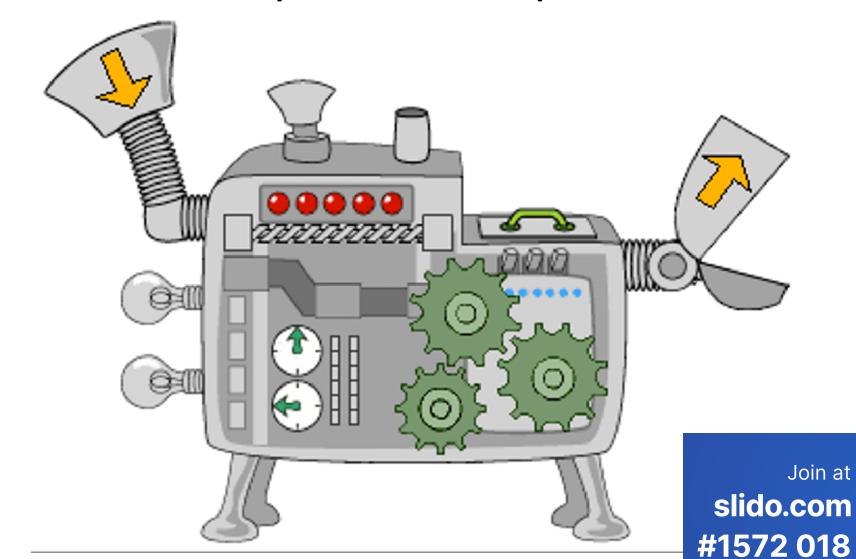
Explanation 1: The Neural Net







Explanation 2: "Input" / "Output"



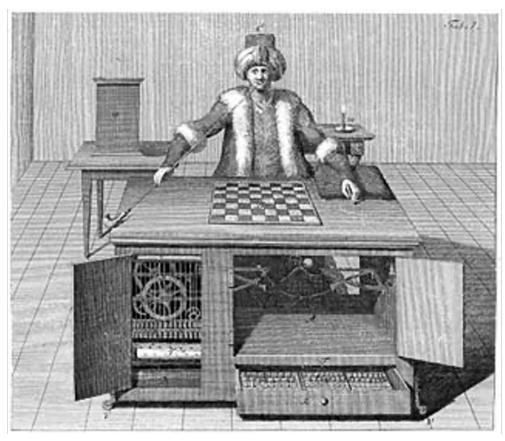


Explanation 3: Predictive Text

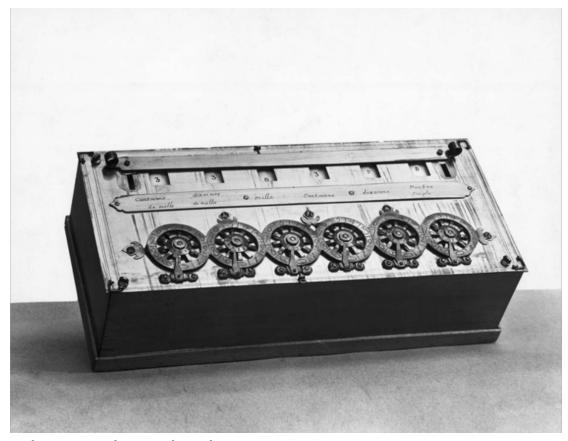




A new angle: Mind & Machines



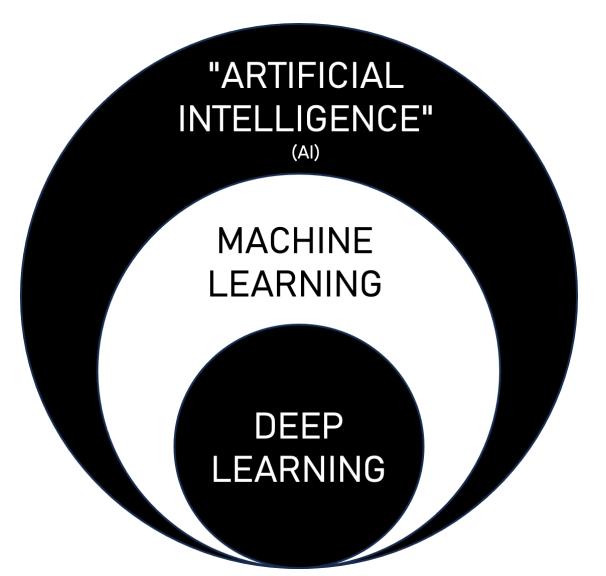
Mechanical Turk



The early calculator



Key Explanation Points

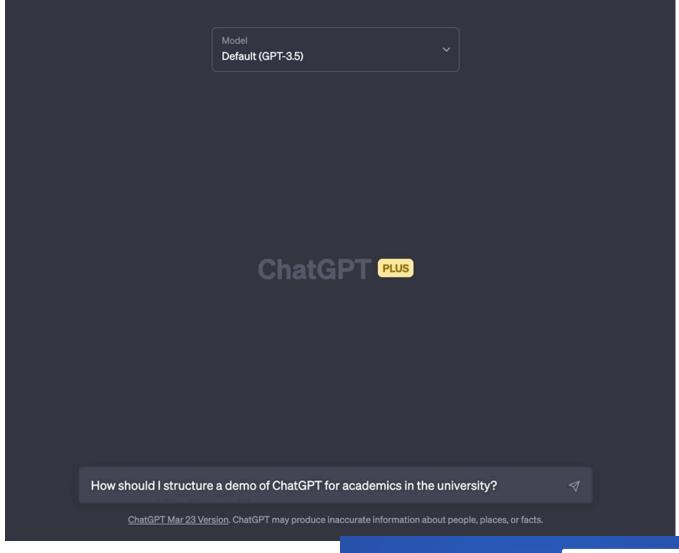


- Narrow vs General Al
- Emphasising the unknown
- The key premise of Large Language Models (LLMs)
- Reinforcement Learning with Human Feedback (RLHF) a largely unsupervised training process with some human 'tweaking' at the end



'The ChatGPT Demo'

- Where possible, using discipline specific examples
- Can lead to 'aha moments' (i.e. ultimate futility of detection tools)
- Importance of staff having hands on experiences with the tool - encouraging staff to sign up for themselves & 'have a go'





My Personal Experience

The Disclaimer

"This is a rapidly changing area, what we tell you today is correct as of today but things are changing quickly."

Rewrites & refinements

Assumptions







Instant feedback about teaching

Low stack tests

Debate





Where are we now

- ChatGPT Challenges and Opportunities
- AI/LLMs for Teaching and Learning
- AI/LLMs for Researchers

Potential Future Workshops

AI/LLMs - Introduction to prompt engineering

AI/LLMs – Build a custom chatbot for your module







GenAl and Assessment

Unleashing Threshold Concepts in Higher Education





	Short-term	Medium-term	Long-term
Ignore	Risky		
Prohibit	No way to enforce	Detection 'arms race'	
Invigilate	Where appropriate (i.e. content/process knowledge only)	Where appropriate	Where appropriate
Allow: design around	Requires grasp of what all LLMs can do	Less likely to make sense as technology develops	
Encourage	Need to ensure equity & privacy	Evolve with the technology	Top of innovation curve: LLMs ubiquitous
Rethink learning & assessment	Needs 12+ month lead time	Workload & coordination	Learning outcomes reflect new norms

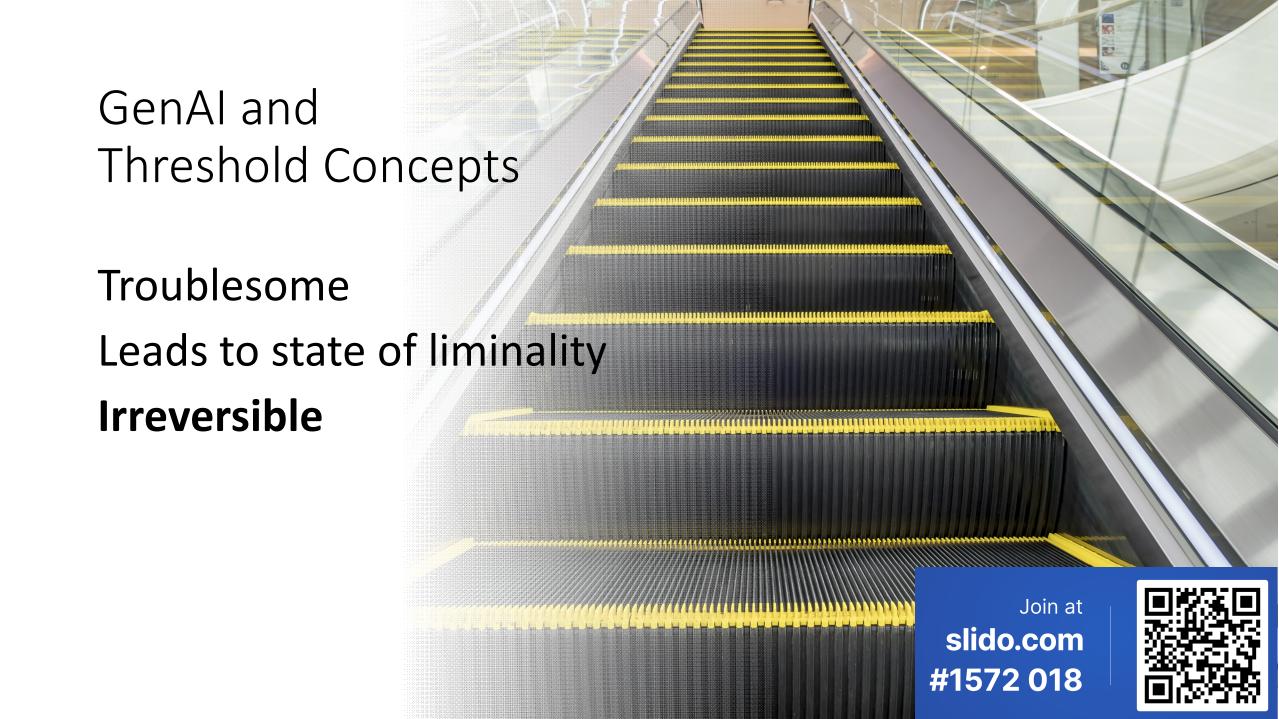




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2023-24 Change assessment title/focus Questions to ask **Examples**

Reflective, opinion-based, erience-based, iterative, etc. aspects, and/or critical LLM use, can fit into the assessment(s) as described in the module pro forma

2024-25 Change mode assessment

Questions to ask Examples

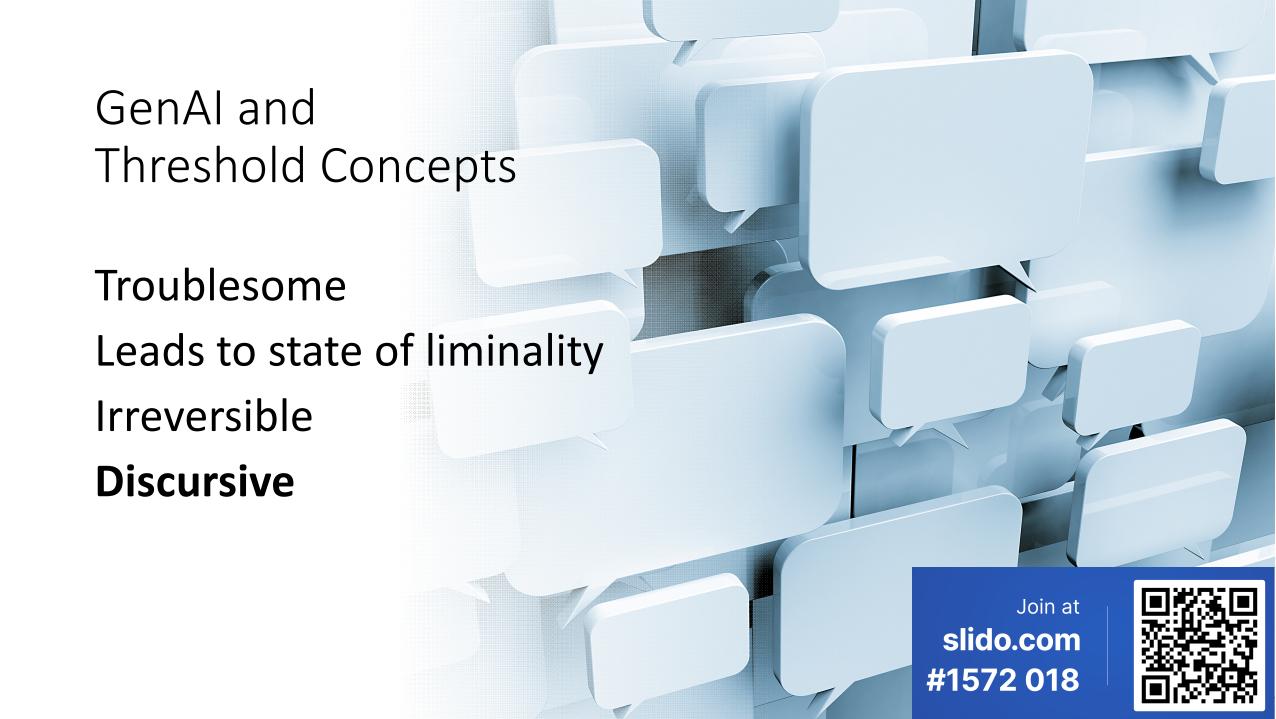
sessment(s) described in the current module pro forma could calegorically be produced by Al

2024-?? Change learnin outcomes & assessmen

Questions to ask Examples

The advent of LLMs necessitates re<mark>conside</mark>ration of the module ogramme learning outcomes and assessment modes





GenAl and
Threshold Concepts

Troublesome

Leads to state of liminality

Irreversible

Discursive

Integrative



GenAl and Threshold Concepts

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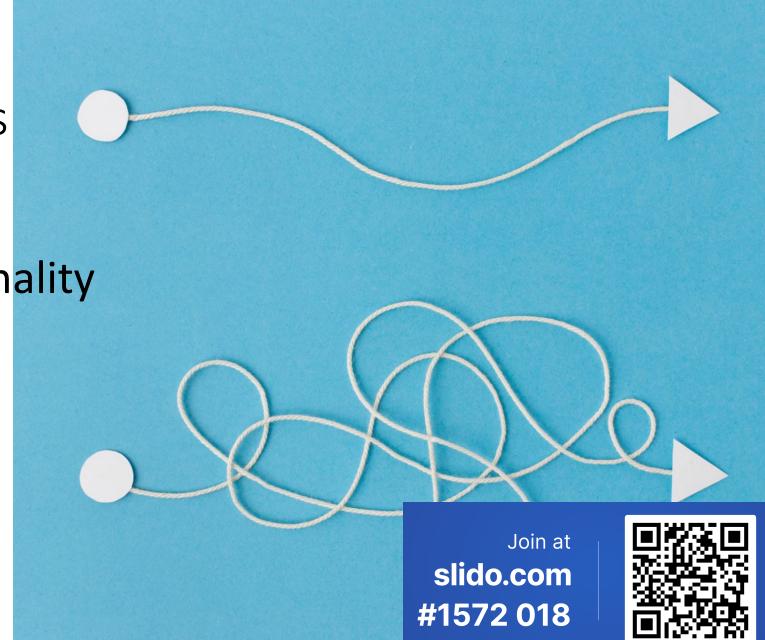
Irreversible

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Integrative

Reconstitutive

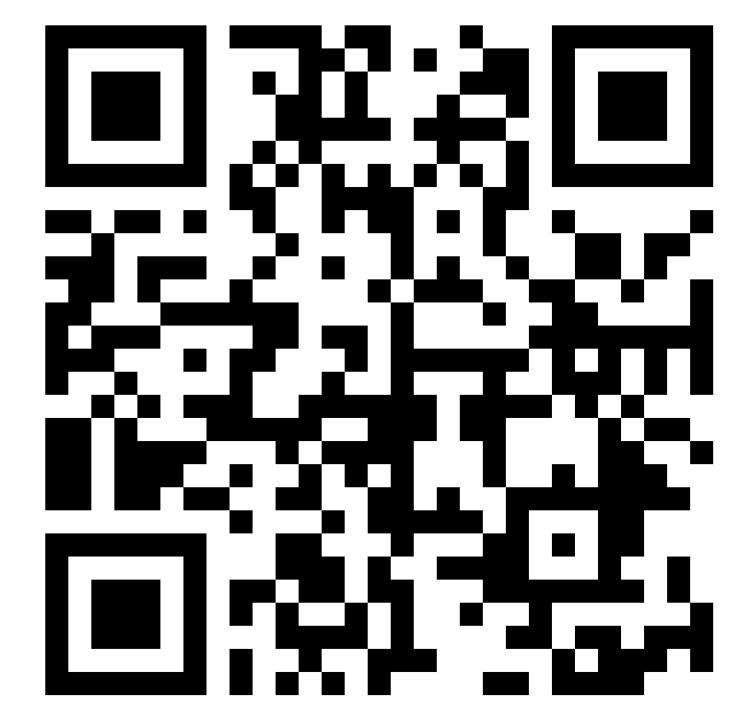
Transformative



Curated Padlet

ChatGPT, Generative AI and Large Language Models in Learning & Teaching

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