

WORKSHOP: UNDERSTANDING & USING AI



UNDERSTANDING AI



- Why do we need to understand Al?
- Definition: "The capacity of computers or other machines to exhibit or simulate intelligent behaviour; the field of study concerned with this. In later use also: software used to perform tasks or produce output previously thought to require human intelligence, esp. by using machine learning to extrapolate from large collections of data." — Oxford English Dictionary
- Narrow ('Weak') Al vs General ('Strong') Al

AI TIMELINE



AI TIMELINE: 1947-2020

1947 1966 2011 2015 Alan Turing talks MIT releases the IBM Watson beats AlphaGo beats about Al in London **ELIZA** chatbot players on Jeopardy! Fan Hui 1940s 1950s 1960s 1970s 1980s 1990s 2000s 2010s 1950 1997 2017 Google Transformer Turing's papers on Deep Blue beats 2018 GPT-1 117M Garry Kasparov in chess 2019 GPT-2 1.5B Intelligent machines



Selected highlights only. Alan D. Thompson. November 2021. https://lifearchitect.al/

HOW CHATGPT WORKS?



- Traditional algorithmic approaches vs "deep learning"
- The power of imitating the human brain

"I have always been convinced that the only way to get artificial intelligence to work is to do the computation in a way similar to the human brain." – Geoffrey Hinton

Predicting the next word

"I am tired, I am going to _____"

IMPLICATIONS



- LLM's are not "magic" nor are they "conscious"
- LLM's are powerful tools for generating and interpreting language
- How do we steward these tools to the glory of God?

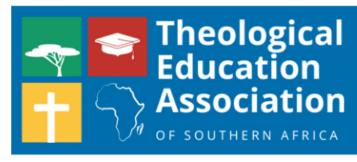
USING AI EFFECTIVELY



- Experiment with LLM's so that you are aware of their capabilities and limitations.
- Make students aware that you are familiar with LLM technologies: ChatGPT, Gemini, etc.
- Design your assessments in a way that recognises that students will increasingly use LLM's unless you can strictly control it (e.g. exam conditions).
- Clarify your expectations with regard to how you expect students to use Al in assessments, but recognise that these boundaries will often be blurred.

AI ASSESSMENT SCALE

1	NO AI	The assessment is completed entirely without AI assistance. This level ensures that students rely solely on their knowledge, understanding, and skills. AI must not be used at any point during the assessment.
2	AI-ASSISTED IDEA GENERATION AND STRUCTURING	Al can be used in the assessment for brainstorming, creating structures, and generating ideas for improving work. No Al content is allowed in the final submission.
3	AI-ASSISTED EDITING	Al can be used to make improvements to the clarity or quality of student created work to improve the final output, but no new content can be created using Al. Al can be used, but your original work with no Al content must be provided in an appendix.
4	AI TASK COMPLETION, HUMAN EVALUATION	Al is used to complete certain elements of the task, with students providing discussion or commentary on the Al-generated content. This level requires critical engagement with Al generated content and evaluating its output. You will use Al to complete specified tasks in your assessment. Any Al created content must be cited.
5	FULL AI	Al should be used as a "co-pilot" in order to meet the requirements of the assessment, allowing for a collaborative approach with Al and enhancing creativity. You may use Al throughout your assessment to support your own work and do not have to specify which content is Al generated.



IDEAS FOR AI USE IN TEACHING AND LEARNING



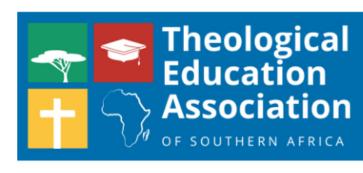
- Clarifying a difficult concept or paragraph in a reading
- Translating a text into a native language for better comprehension
- Summarising a text or important concept, e.g. "What was Karl Barth's view of revelation?" or "Please summarise E.P. Sander's work on Paul?"—more detail is better
- Interacting with Greek or Hebrew through translation, parsing, answering grammatical questions, producing tables of conjugations etc.

IDEAS FOR AI USE IN TEACHING AND LEARNING



- Listing key scholarly works relevant to studying a particular passage or topic
- Interpreting the textual apparatus when doing textual criticism
- Critiquing your writing grammatically, stylistically, and conceptually
- Checking referencing and citations
- Demonstrate the dangers of Al getting things wrong,
 "hallucinating," i.e. making up non-existent references etc.

DISCUSSION



The bottom line: LLM's are "good servants but poor masters"?



Thank You!