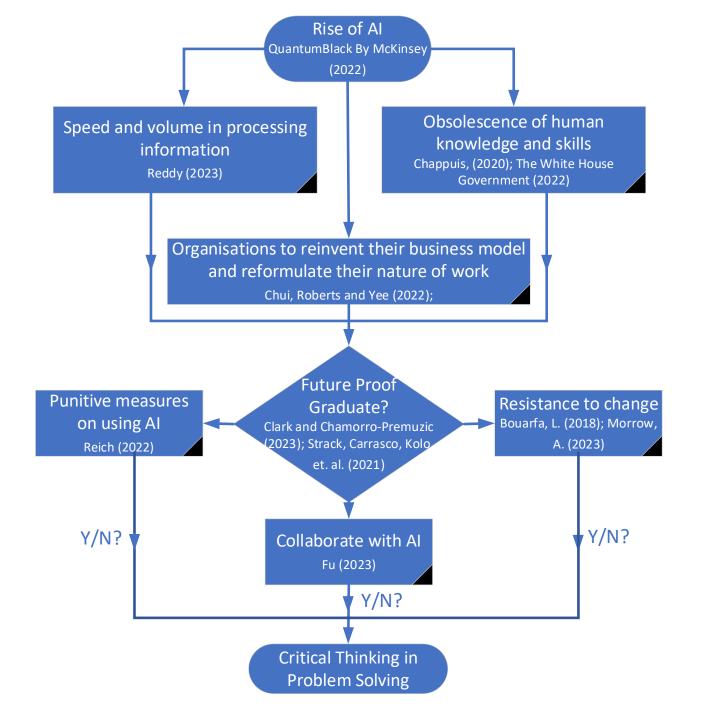


Dr Colin Fu (CLBS)



The Era of Al

		Produce new or original work Design, assemble, construct, conjecture, develop, formulate, author, investigate	Collaboration Collaborating Moderating Negotiating
	evaluate	Justify a stand or decision appraise, argue, defend, judge, select, support, value, critique, weigh Another in the stand or decision appraise, argue, defend, judge, select, support, value, critique, weigh Another in the stand or decision Another in the stand or decision An	Debating Commenting Net meeting
	analyze	Draw connections among ideas differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test	skyping video conferencing Reviewing Questioning
	apply	Use information in new situations execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch	Commenting Posting Networking
	understan	d Explain ideas or concepts classify, describe, discuss, explain, identify, locate, recognize, report, select, translate	Contributing Chatting emailing
	remembe	Recall facts and basic concepts define, duplicate, list, memorize, repeat, state	twittring texting instant messaging

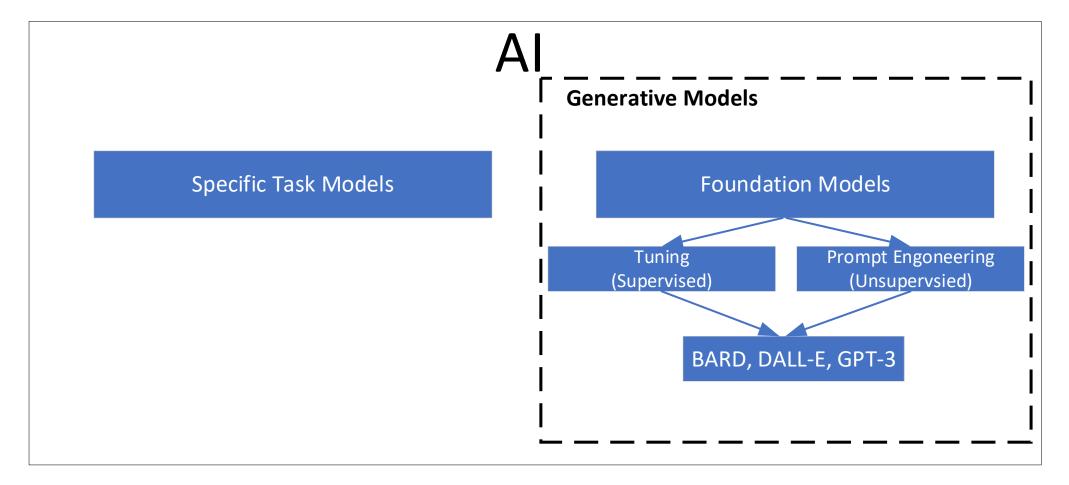
Revised Bloom's Taxonomy(Anderson, et. al., 2001, Krathwohl, 2002):

Digital Bloom's Taxonomy(Church, 2008)

- Bloom's Taxonomy has been used to measure the development of thinking skills from one level to another.
- Church's (2008) Digital Bloom's Taxonomy addresses the struggles educator faces when attempting to integrate digital technology in teaching.

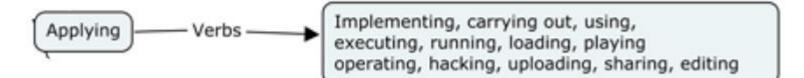
The Era of Al

• ... but then here comes Large Language Models, i.e. ChatGPT and Google's Bard...

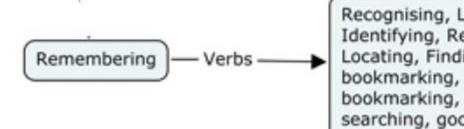


The Era of Al

 ... but then here comes Large Language Models, i.e. ChatGPT and Google's Bard...



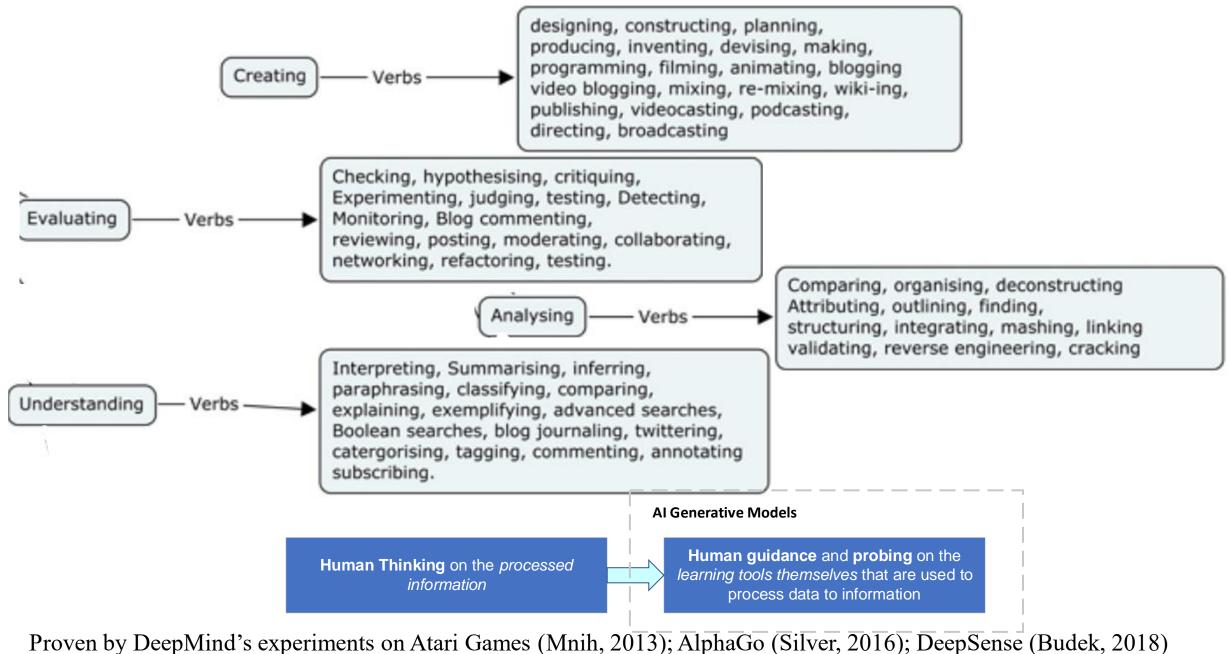
Automation of many tasks that once required the application of knowledge and skills.



Recognising, Listing, Describing, Identifying, Retrieving, Naming, Locating, Finding, bullet pointing, highlighting bookmarking, socail networking, social bookmarking, favouriting/local bookmarking, searching, googling.

Our ability to store and to retrieve information is improved by technology;

Redundancy of such cognitive domains were demonstrated by Mnih (2013), Kozub (2017) and Hafner (2021).



for the Atari games.

Methodology

"What is the difference between supervised and unsupervised learning in AI?"

"Can you help me understand how the backpropagation algorithm works in neural networks?"

"Suppose I've developed an AI model for credit scoring. The model performs well in terms of accuracy but it seems to disproportionately reject applications from certain zip codes. How should I evaluate its performance and fairness?"



Using "Machine Learning and AI" as a subject, studied the subjective experiences of students

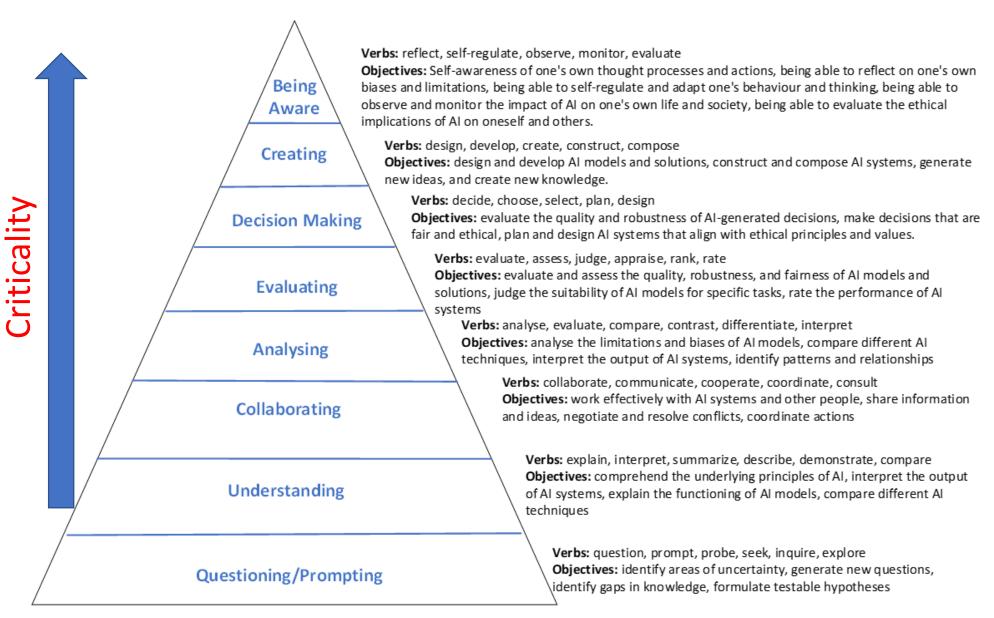
Started with observations to generate a theory about how this framework impacts learning

Interested in an in-depth understanding of students' experiences

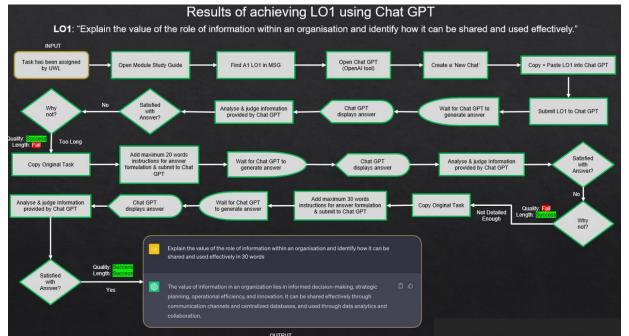
Collected data across multiple iterations of a course

Collected data through pre- and post-tests, student feedback forms, observation of classes etc.

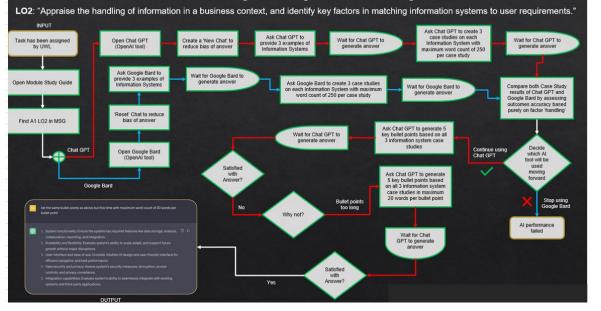
Proposed New Framework – QUCA-EDCA



Impact (Fu, Vaiksnoras, Kern, 2023)



Results of achieving LO2 using Chat GPT & Google Bard



"AL allows me to expand on previously address inquiries to offer additional insights and details"

- "Instead of using only one AI tool, I use both Google search and Chat GPT to work collaboratively with myself to generate various ideas."
- "Through process reflection, I was able to see the tool's effectiveness, capabilities, strengths and limitations."

"For me, it is essential to critically evaluate its responses, cross-reference information, and consider the limitations of an AI model."

"Correct parameters must be provided for succinct information."

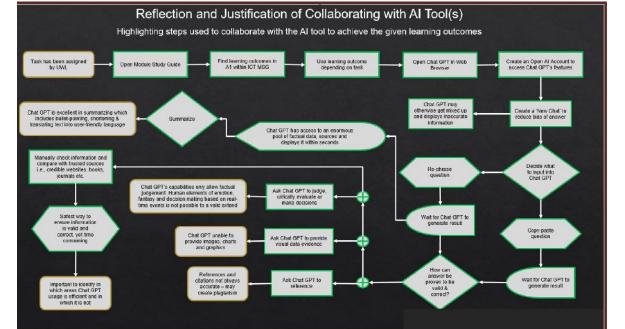
"Comparing answers obtained from both ChatGPT and Google Bard has allowed me to critical analyse the given responses by the AI tools" . "Going through the process step-bystep, I appreciate the limitations of Chat GPT, which however, Chat GPT can aid by providing factual information which I then verify to create creative approaches."

"This assignment demonstrates that Chat GPT proves itself useful in finding various valuable information and help to summarize important points depending on my prompts "

> "It is handy to use AI to generate ideas and insights ..."

"AI provides information without the need of scrolling through list of URLs like those by the search engines, and hence saving time..."

"To increase the effective use of ChatGPT, correct framing of questions will increase information accuracy."



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Appendix

• Bloom's Taxonomy has been used to measure the development of thinking skills from one level to another.

Bloom's Taxonomy (Bloom, 1956; Anderson, et. al., 2001, Krathwohl, 2002)

