

From Learning Companion to Learning Threat: Examining ChatGPT's Trustworthiness in the Classroom

Speaker: [Prof Lek Hsiang Hui](#)

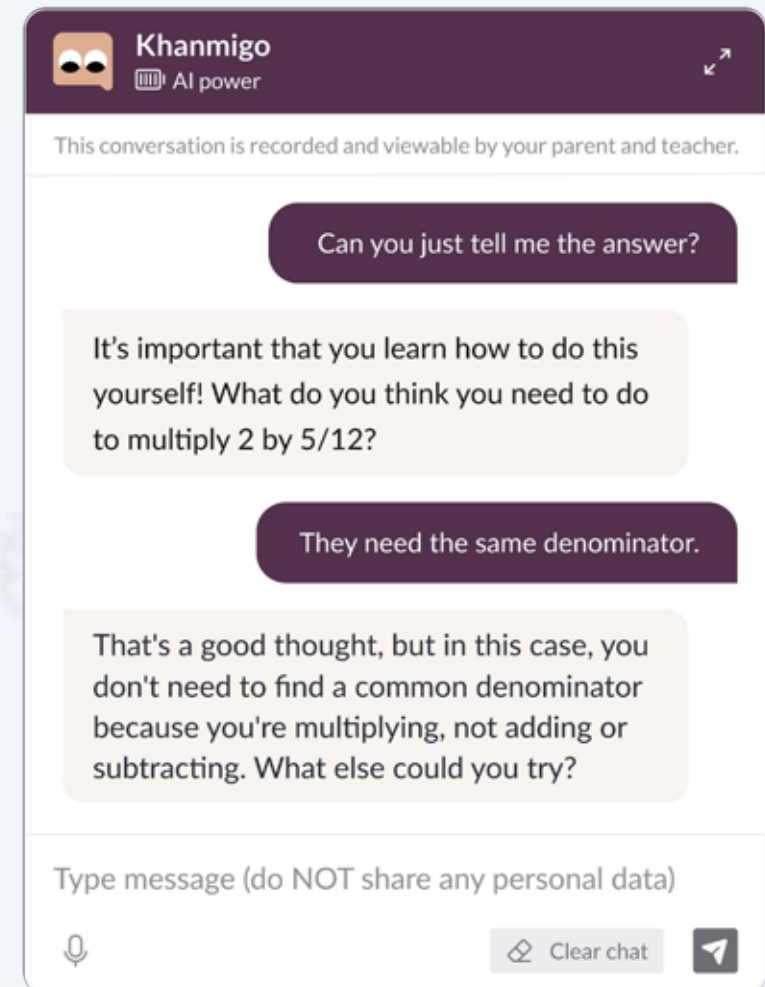
This talk will highlight some concerns with the trustworthiness of AI tools and discuss how it impacts student's learning.



Age Of AI-Assisted Education

Applications of AI in Education

- Personalised / Adaptive Learning – AI Tutor (Khan Academy)



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Applications of AI in Education

- AI Pair Programmer
(Github Copilot)

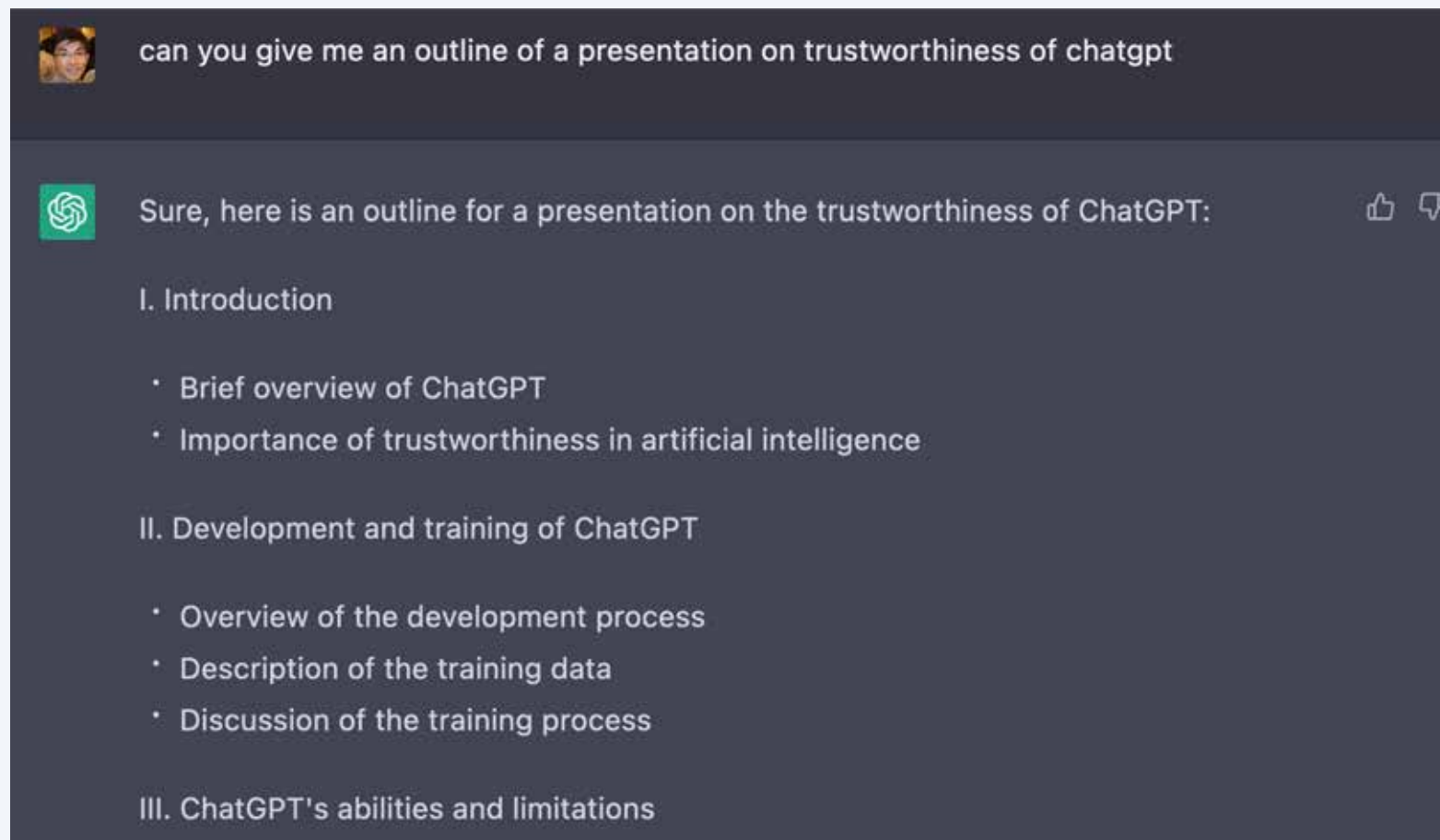


```
57     public function getStrings(){  
58         return [  
59             'en' => [  
60                 'answer' => 'Answer',  
61                 'question' => 'Question',  
62                 'date' => 'Date',  
63             ], You, Moments ago • Uncommitted changes  
64         ],  
65     };  
66 }  
67 }  
68 }  
69 }
```

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Applications of AI in Education

- Idea Generation



can you give me an outline of a presentation on trustworthiness of chatgpt

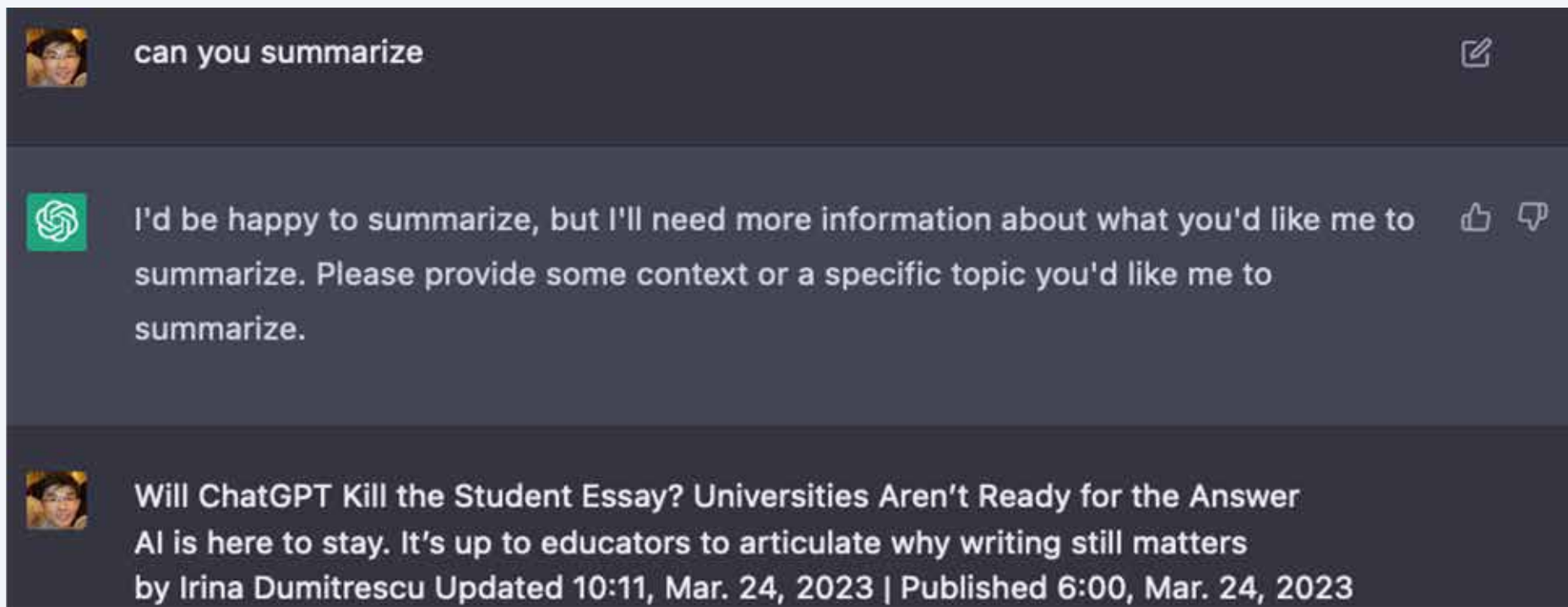
Sure, here is an outline for a presentation on the trustworthiness of ChatGPT:

- I. Introduction
 - Brief overview of ChatGPT
 - Importance of trustworthiness in artificial intelligence
- II. Development and training of ChatGPT
 - Overview of the development process
 - Description of the training data
 - Discussion of the training process
- III. ChatGPT's abilities and limitations

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Applications of AI in Education

- Summarisation / Digest information much faster



Age Of AI-Assisted Education



can I say that AI has led to the fastest evolution in education since chatgpt?



Yes, you can say that AI has led to the fastest evolution in education since ChatGPT. However, it is important to note that there are other AI-based educational technologies that have also contributed to this evolution. ChatGPT is just one example of how AI is transforming the education landscape. It is also worth noting that the pace of innovation and evolution in education will likely continue to accelerate as AI technology continues to advance and be integrated into new and innovative educational tools and platforms.

When There Was No AI ...

Students need to understand how things are done

- Understand what is right/wrong.
- Instructors need to ensure that this learning objective is fulfilled.

Process of learning is painful, tedious, and time-consuming

- Process is not efficient, learning often happens through failure.



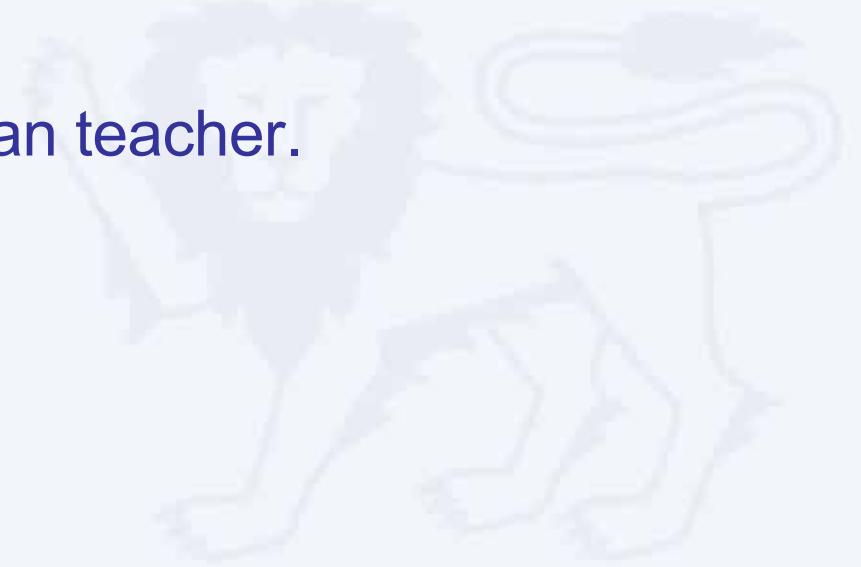
How AI Has Changed Learning?

Made us more productive in learning

- AI (e.g. ChatGPT) as a highly informed assistant that has learned *all* the information from the web.

Always available assistant

- Learning companion that is not restricted to the classroom.
- Do not have to wait for a human teacher.



Students Getting Excited About AI...

*“Take a look at
what ChatGPT has
produced...”*

*Oh wow! We have
never seen
something like this
before...*



Image generated using DALL-E
(AI image generation service)

Gotcha?!

*Oh wait... the result
does not seem correct*

Danger of “learning” the wrong thing

- Students learning for the first time would not be able to differentiate between what is correct or wrong.
- Issue exacerbated because most of the results of ChatGPT are good.
- Students get the wrong impression that the output is always correct since it is doing a good job most of the time.

Learning Threat?

Regardless of correct/wrong output, students might not appreciate what type of training they need

- We often learn better through failures.
- While AI seems to be a shortcut to learning but is it really helping students to learn?

Are we training students to be expert users of AI tools or are we teaching them to be problem solvers?

Has the skills of workers shifted to be about “*Prompt Engineering*” instead?

Food For Thoughts

What is the objective of education, classroom learning, assessments, projects, etc?

- Sometimes it is the process that matters rather than the final output.

If we are not trained to tackle the tasks on our own and AI were to take care of this problem-solving, does it justify our value?

- How are we protecting ourselves to be replaced by AI?
- 

Food For Thoughts

Is the focus of education about being skillful AI tools users?

- Any YouTuber with hours of ChatGPT usage can become an expert user of ChatGPT!
- Letting AI automate things so that learners can take the backseat feels like we are going backwards in learning.
- What is there to stop someone who graduated earlier (in the era without AI) to take up these tools to turbo boost their productivity further?

Realistically What Then Is The Role Of AI In Education?



Good for ideation



Not ideal to be used wholesale as the final form



Learning companion



Teacher replacement



**Definition of right/wrong might not be the same
when we talk about humanities/ethics-related topics**

- AI models are data-driven (*learned from data*).
- Real-world decision making might be based on principles (*“what defines being human?”*).