A guide to Generative AI in Education

john.hackett@icon-is.co.uk

https://bit.ly/nen_gai

Introduction

- What is AI

- The Positives

- The Risks

  - Systemic,ethical, societal, bad-actors

- Education

- Existential threat?

What is AI?

- Expert systems
- Machine Learning (Neural Networks)
- Generative AI (LLMs)

The Positives

- Already being used
- Potential for increased productivity
  - Computer code
  - Law
  - Health
  - The Arts

The Positives

- Khan Academy (student v teacher versions)
  - Grammarly
  - Language conversations with ChatGPT
  - ChatGPT as discussion participant
- Gamechanger – ML to GAI

The Risks

- Systemic Risks

- Ethical Risks

- Societal Risks

- Bad-Actors

- LLM "Hallucinations"

Education

- Each benefit and risk noted above will affect education

- Teachers must be aware of risks and educate their students about them.

- BUT not let the bad overwhelm the good

- Much like the internet – has good and bad. Enjoy the good while being aware of the bad.

- Critical Thinking

- Government role? DfE and EU papers.

Existential Threat?

Geoffrey Hinton, one of the great pioneers of AI, has just left Google and, when talking about whether AI would destroy us in a recent Guardian article, said:

 "I thought it would happen eventually, but we had plenty of time: 30 to 50 years. I don't think that any more. And I don't know any examples of more intelligent things being controlled by less intelligent things – at least, not since Biden got elected." He now thinks the crunch time will come in the next five to 20 years, he says. *"But I wouldn't rule out a year or two…"*.

Existential Threat?

- Nick Bostrom – "Superintelligence" – is one voice but not all agree.

- Can an LLM – which is a statistical model – ever become a superintelligence?

- In my opinion no. But I may be wrong!

Summary

- AI (or better, Machine Learning) is here already

- Advances are coming fast with GAI

- Has great potential in Education to guide, prompt, research, etc.

- Also has great potential for harm – Deep Fakes, mis- and disinformation, politics, etc.

- But the current models will probably not become a superintelligence and wipe out the human race but may prove very disruptive.

- Whole PAPER: https://bit.ly/nen_gai

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John Hackett

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