



AI² in Higher Education

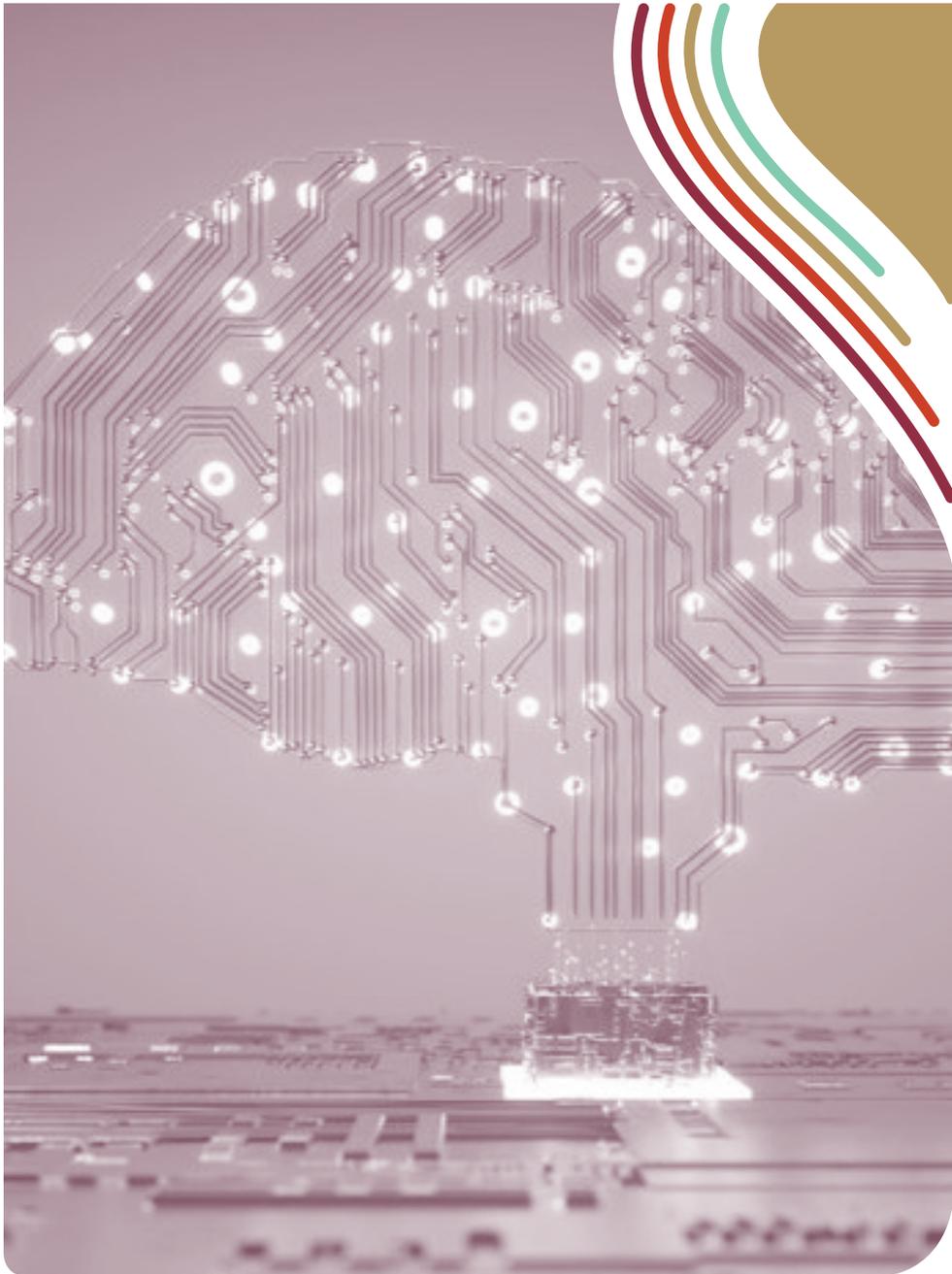
ChatGPT and its implications for Teaching, Learning and Assessment



Stellenbosch

UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT

forward together
sonke siya phambili
saam vorentoe



In this session

- The AI universe
- Our role
- ChatGPT demonstration
- Our HE responsibility
- HI/AI collaboration
- SU AI OER

The presenters



Magriet de Villiers is the Learning Technologies Advisor of the Centre for Learning Technologies (CLT) at Stellenbosch University (SU). She studied and taught in the field of Theology at SU. She took up the position as the Faculty of Theology's Blended Learning Coordinator, and later that of the Academic Development Coordinator. Her teaching and research interests centre on the pedagogy of discomfort, learning spaces, artificial intelligence in Higher Education, instructional- and learning design, and blended- and hybrid learning.



Hanelie Adendorff is a senior advisor in the CTL at SU. She has a PhD in Chemistry but has been working in professional development since 2002. Her career started with an interest in blended learning, but she has since worked in the areas of assessment, facilitation of collaborative learning, science education and, more recently, the decolonization of the science curriculum. Since SU's move to emergency and augmented remote teaching, she has been involved with institutional research on assessment.



Philip Southey lecturers in physics SU. He obtained his PhD in Tertiary Physics Education from the University of Cape Town (UCT) after completing a BSc Astrophysics (UCT) and a BA PPE (Oxford). He regards teaching as one of the greatest and most exciting intellectual and personal challenges. His research interest lies at the intersection of science, education and philosophy; particularly the metaphors underlying shifts of paradigm in these disciplines. He has taught English in a rural village in the Himalayas and played bagpipes for the queen.

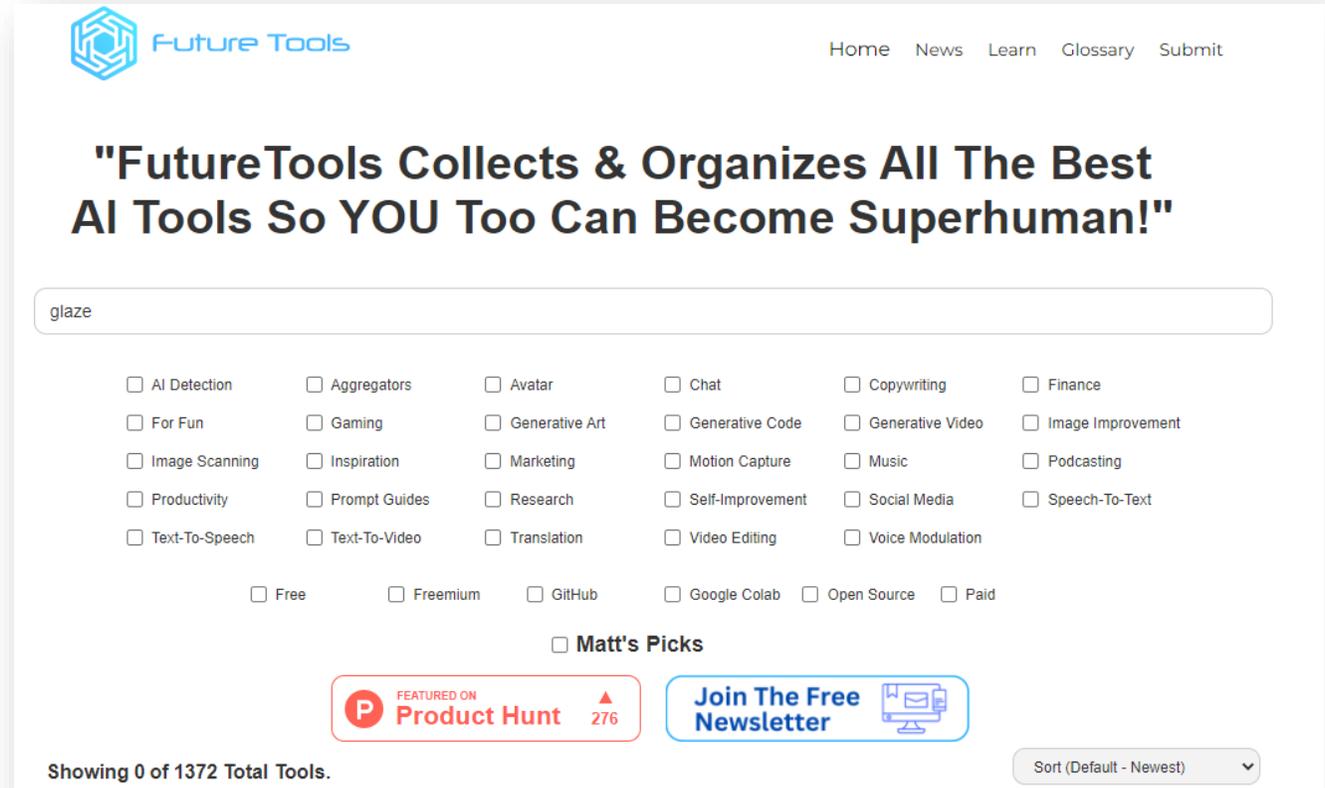


Dalene Joubert is the new addition to the CTL-advisor team at SU. She holds a joint Masters Degree from SU and the University of Leiden, a PGCE from Unisa and she is currently busy with her PhD in Translations Studies at SU. Dalene has a passion for learning and teaching, and has been in the space for over a decade – she has taught at both Rhodes University and SU, and has also been a high school teacher. She loves her work, and is currently exploring the intersection where AI, TLA and SU meet.

The AI Universe

There is a lot

- ChatGPT
- Bing
- GPTZero
- Midjourney
- DALL·E
- Stable Diffusion
- Google Workspace
- Microsoft Office
- OtterAI
- Keenious
- Craiyon



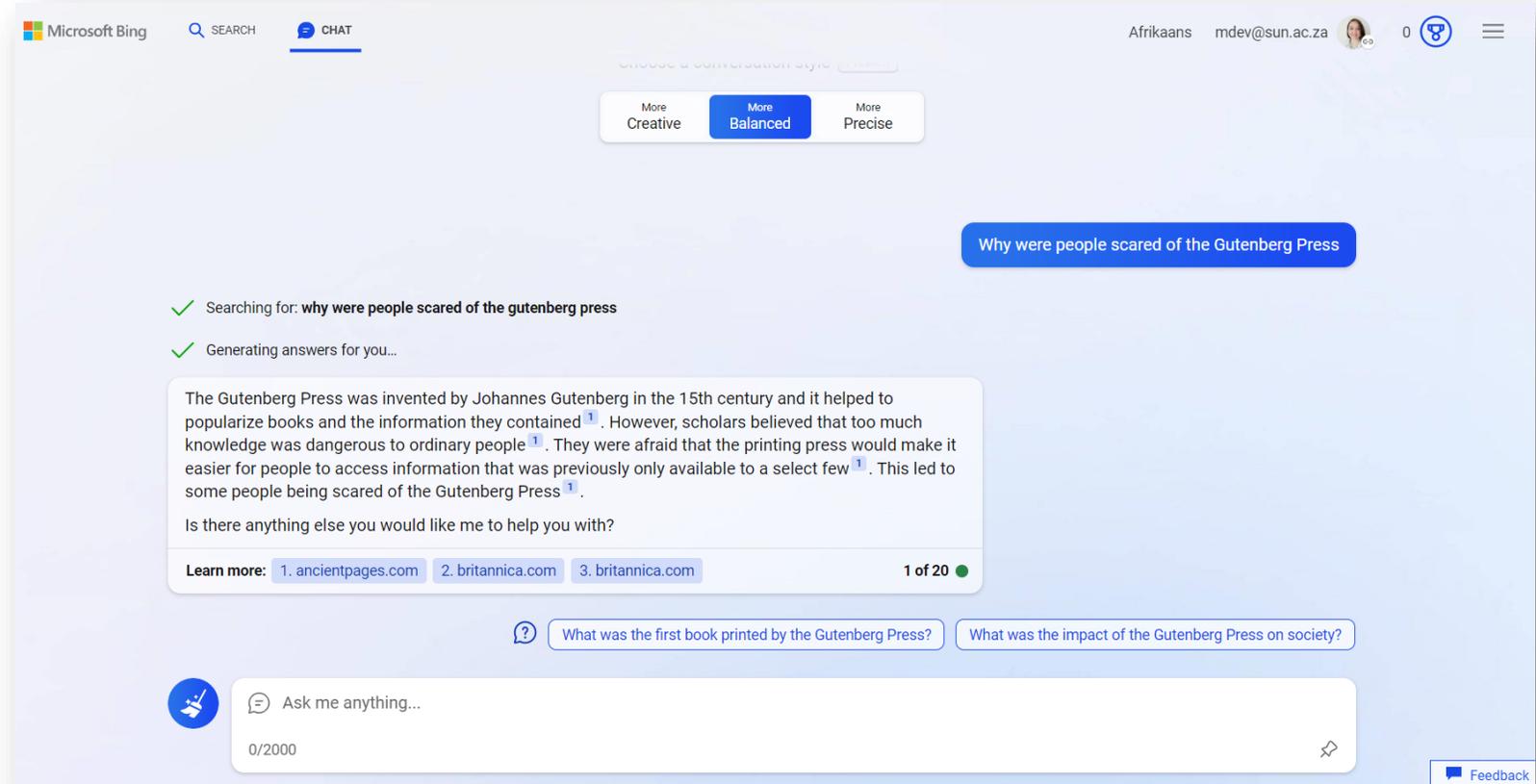
The screenshot shows the Future Tools website interface. At the top left is the Future Tools logo, and at the top right are navigation links: Home, News, Learn, Glossary, and Submit. The main heading reads: "FutureTools Collects & Organizes All The Best AI Tools So YOU Too Can Become Superhuman!". Below this is a search bar containing the text "glaze". Underneath the search bar is a grid of filter categories, each with a checkbox: AI Detection, Aggregators, Avatar, Chat, Copywriting, Finance, For Fun, Gaming, Generative Art, Generative Code, Generative Video, Image Improvement, Image Scanning, Inspiration, Marketing, Motion Capture, Music, Podcasting, Productivity, Prompt Guides, Research, Self-Improvement, Social Media, Speech-To-Text, Text-To-Speech, Text-To-Video, Translation, Video Editing, and Voice Modulation. Below these are additional filters: Free, Freemium, GitHub, Google Colab, Open Source, and Paid. A "Matt's Picks" section is visible, featuring a "Featured on Product Hunt" badge with a red 'P' icon and a count of 276, and a "Join The Free Newsletter" button with an envelope icon. At the bottom left, it says "Showing 0 of 1372 Total Tools.", and at the bottom right, there is a "Sort (Default - Newest)" dropdown menu.

Future Tools - Find The Exact AI Tool For Your Needs
<https://www.futuretools.io/>

The AI Universe

What humans do best

- We solve problems



Microsoft Bing SEARCH CHAT Afrikaans mdev@sun.ac.za 0

Choose a conversation style

More Creative More Balanced More Precise

Why were people scared of the Gutenberg Press

✓ Searching for: **why were people scared of the gutenberg press**

✓ Generating answers for you...

The Gutenberg Press was invented by Johannes Gutenberg in the 15th century and it helped to popularize books and the information they contained ¹. However, scholars believed that too much knowledge was dangerous to ordinary people ¹. They were afraid that the printing press would make it easier for people to access information that was previously only available to a select few ¹. This led to some people being scared of the Gutenberg Press ¹.

Is there anything else you would like me to help you with?

Learn more: [1. ancientpages.com](#) [2. britannica.com](#) [3. britannica.com](#) 1 of 20

? What was the first book printed by the Gutenberg Press? What was the impact of the Gutenberg Press on society?

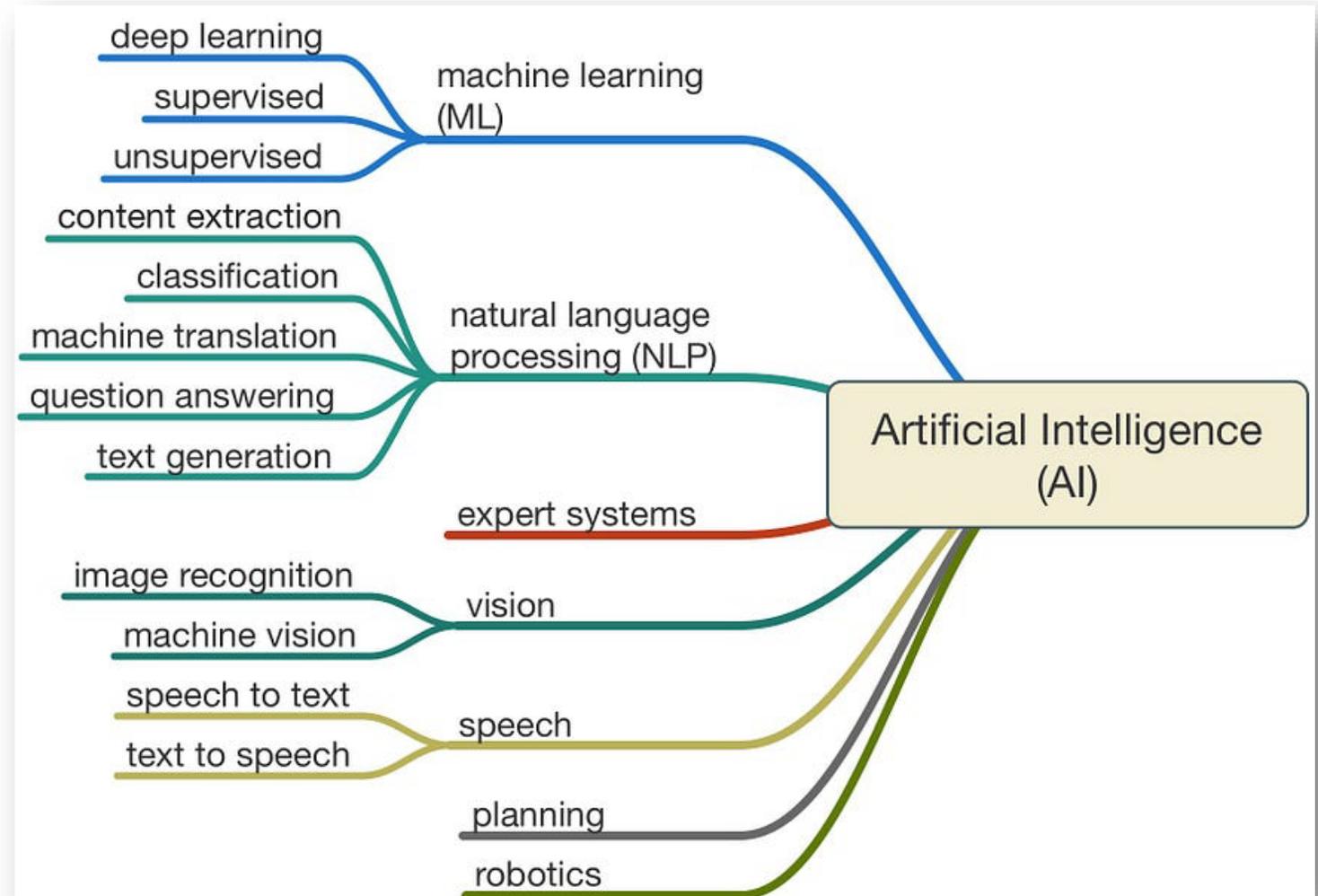
Ask me anything... 0/2000

Feedback

The AI Universe

What humans do best

- We solve problems
 - AI and Big Data have been with us for a while now



The AI Universe

What humans do best

- We solve problems
 - AI and Big Data have been with us for a while now
- We are adaptable, critical thinkers



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[← All Open Letters](#)

Pause Giant AI Experiments: An Open Letter

We call on all AI labs to immediately pause for at least 6 months the training of AI systems more powerful than GPT-4.

Signatures

18980

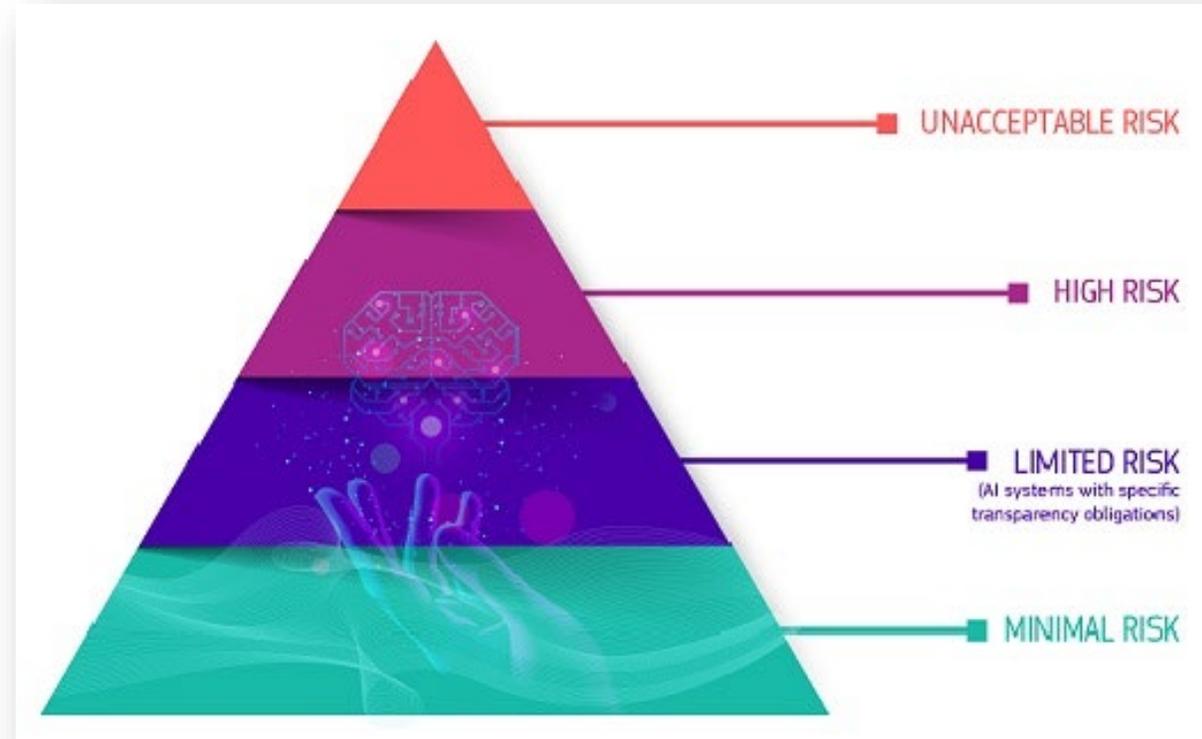
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PUBLISHED
March 22, 2023

The AI Universe

What humans do best

- We solve problems
 - AI and Big Data have been with us for a while now
- We are adaptable, critical thinkers



[Regulatory framework proposal on artificial intelligence | Shaping Europe's digital future \(europa.eu\)](#)

The AI Universe

What humans do best

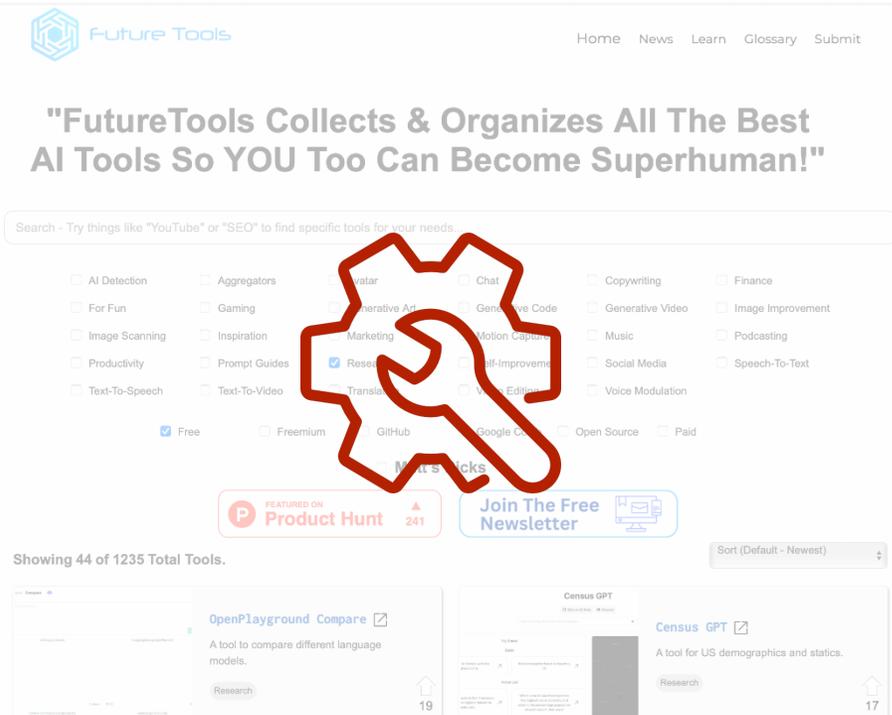
- We solve problems
 - AI and Big Data have been with us for a while now
- We are adaptable
- We are critical thinkers
- We are accountable - stay vigilant and informed

How can we respond?

At SU we strive to use technology in a meaningful and innovative way within the TLA environment. This includes a critical, integrated approach to the use of AI technologies such as ChatGPT. We promote the ethics and academic integrity of both students and lecturers within this new TLA-context.

As a leading HE institution and trusted knowledge partner, the most responsible response is to alter and adapt our TLA practices to account for the advances in AI technology and its future applications. We motivate, therefore, that **there are ways of embracing AI for the future of TLA at SU.**

What is our role?



Future Tools

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"FutureTools Collects & Organizes All The Best AI Tools So YOU Too Can Become Superhuman!"

Search - Try things like "YouTube" or "SEO" to find specific tools for your needs.

- AI Detection
- Aggregators
- Avatar
- Chat
- Copywriting
- Finance
- For Fun
- Gaming
- Generative AI
- Generative Code
- Generative Video
- Image Improvement
- Image Scanning
- Inspiration
- Marketing
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- Music
- Podcasting
- Productivity
- Prompt Guides
- Research
- Self-Improvement
- Social Media
- Speech-To-Text
- Text-To-Speech
- Text-To-Video
- Translation
- Video Editing
- Voice Modulation

Free Freemium GitHub Google Colab Open Source Paid

Showing 44 of 1235 Total Tools.

Sort (Default - Newest)

OpenPlayground Compare

A tool to compare different language models.

Research

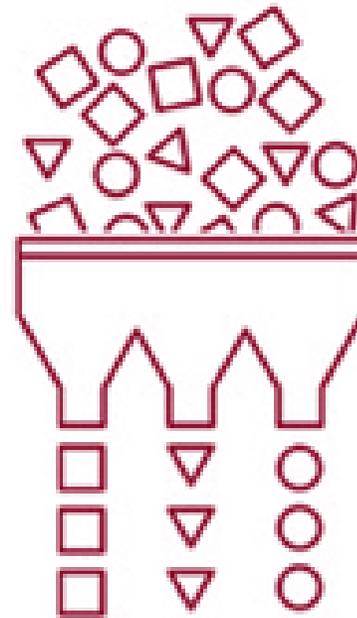
19

Census GPT

A tool for US demographics and statics.

Research

17



AI literacy

in HE teaching,
learning and assessment

*A professional development opportunity
for SU staff*

SU Short Course
5 webinars and a presentation session
April – September 2023

More info available soon!
Questions? Dalene Joubert (dvermeulen@sun.ac.za)



**COMING
SOON**

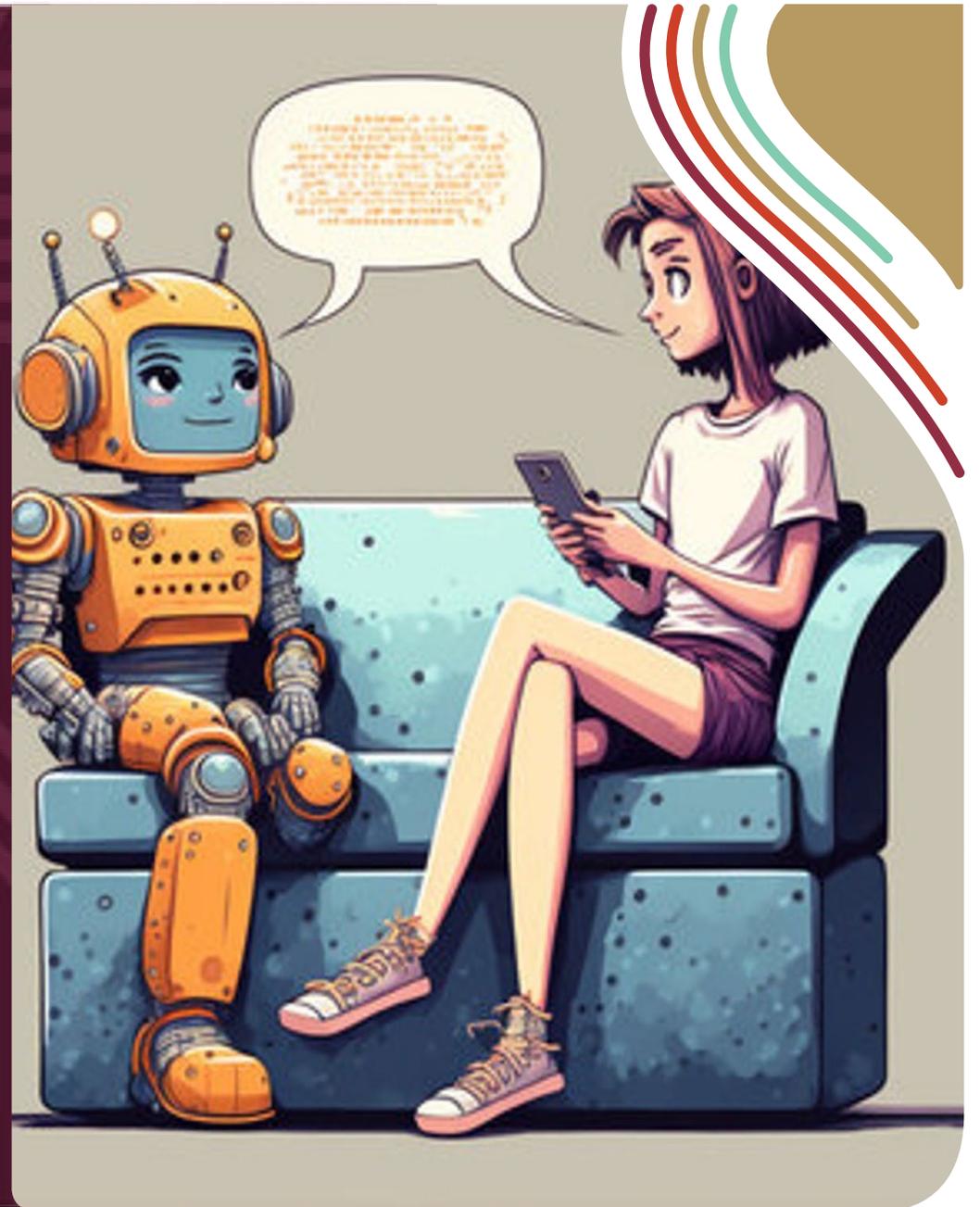
What is ChatGPT?

- Feedback = more on ChatGPT
- Refer to previous talk for
 - What is ChatGPT (prof Bruce Watson)
 - What is SU's position (dr Antoinette van der Merwe)
- Large Language Model
- Trained on large datasets (2021)
- GPT = generative pre-trained transformer

Prompt / question

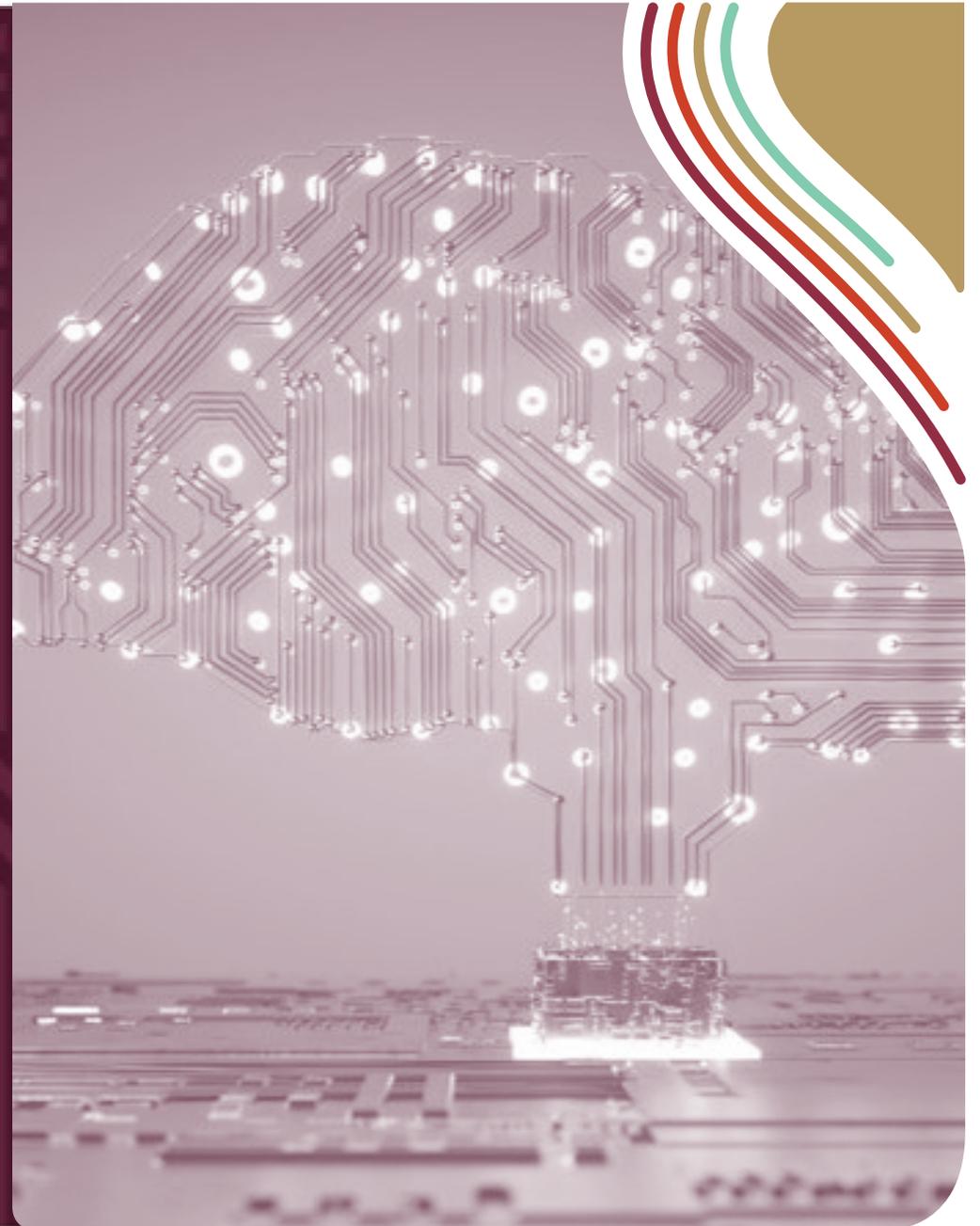
ChatGPT demo

Dr. Philip Southey



Our HE responsibility

Dr. Hanelie Adendorff



What will our students need in an AI-enabled world?

“If the purpose of higher education is that students memorise and summarise a body of knowledge, and that this is then certified via assessment, then ChatGPT is an existential threat.”

THE CONVERSATION

Academic rigour, journalistic flair

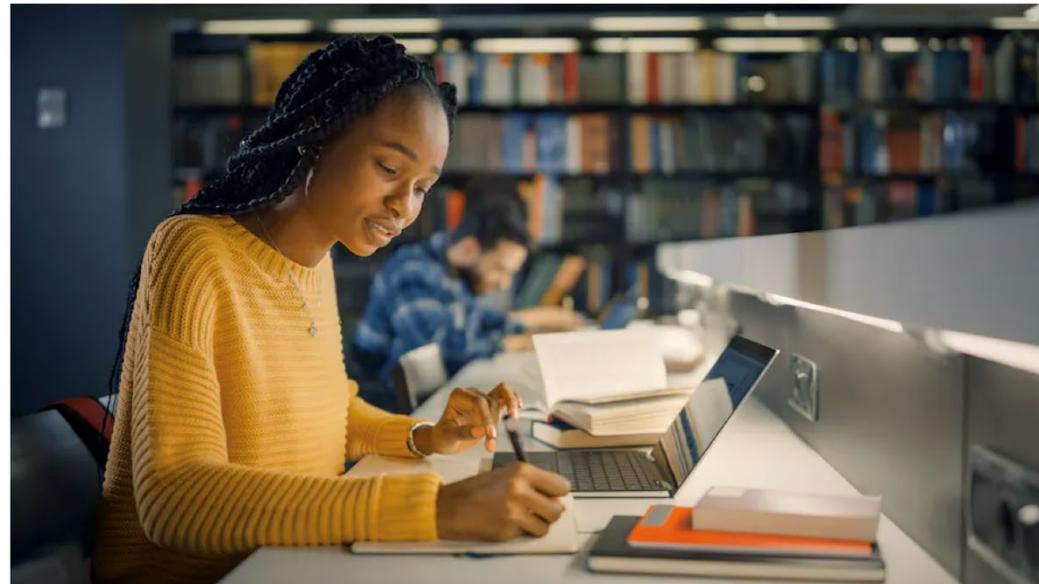
Search analysis, research, academics...

COVID-19 Arts + Culture Business + Economy **Education** Environment + Energy Health + Medicine Politics Science + Tech

TC Afrique

ChatGPT is the push higher education needs to rethink assessment

Published: March 12, 2023 9.42am SAST



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Disclosure statement

The authors do not work for, consult, own shares in or receive funding from any company or organisation that would benefit from this article, and have disclosed no relevant affiliations beyond their academic appointment.

What will our need in an AI-enabled world?

Relationships

“relationship building is a key determinant of classroom success, according to researchers at the Harvard Graduate School of Education” (Mehta, 2020)

FACULTY FOCUS

HIGHER ED TEACHING STRATEGIES FROM MAGNA PUBLICATIONS

EQUALITY, INCLUSION, AND DIVERSITY

Teaching with Care: Why Community is at the Heart of Successful Pedagogy

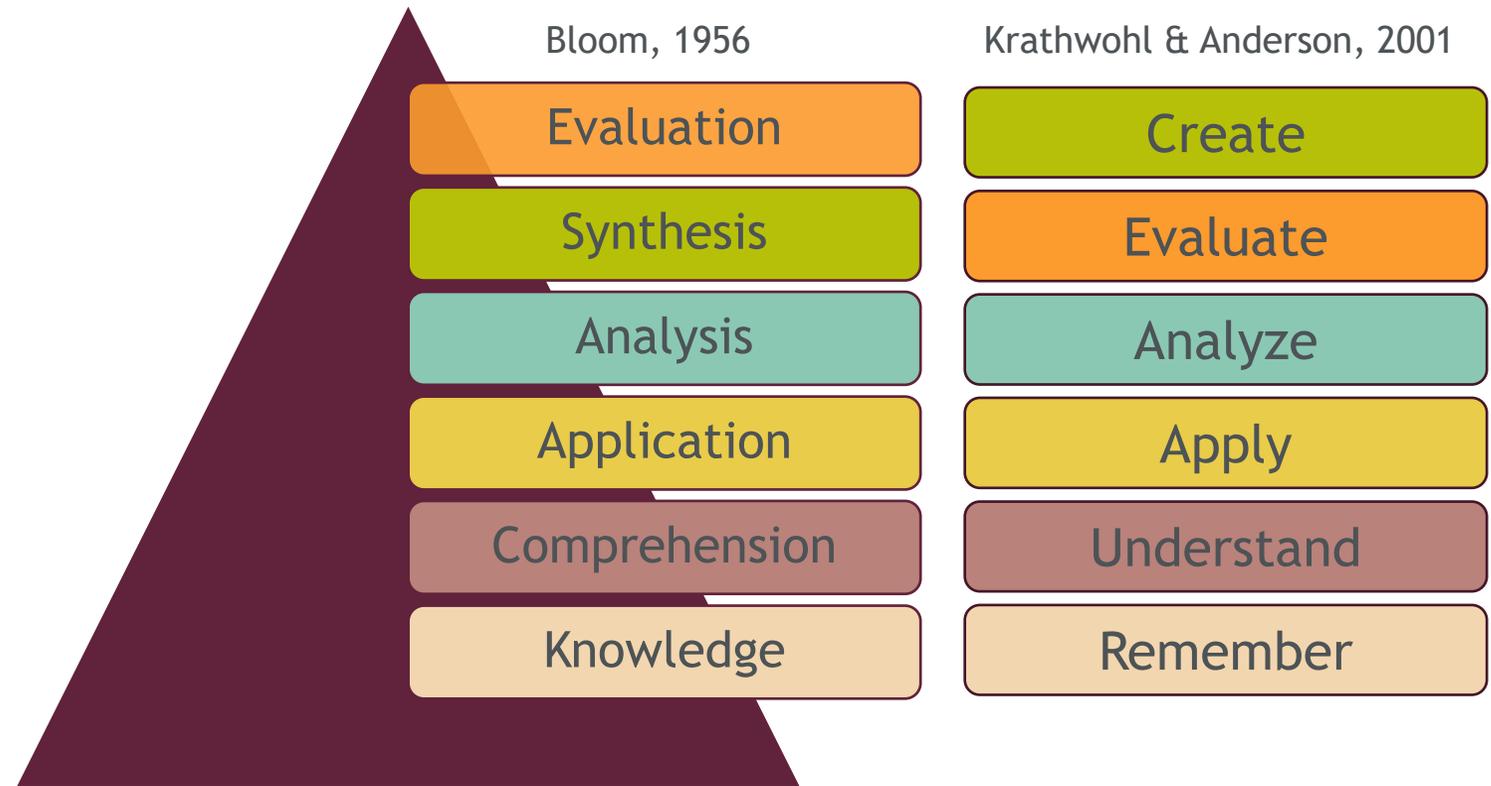
📅 July 30, 2021 ✍️ [Juli S. Charke and Mitch Fried](#)



What will our need in an AI-enabled world?

Critical thinking

“While I can assist in certain aspects of critical thinking by providing information, analysis, and evaluation of arguments, I cannot truly engage in critical thinking myself.” ChatGPT



What will our need in an AI-enabled world?

AI literacies

“We define AI literacy as a set of competencies that enables individuals to critically evaluate AI technologies; communicate and collaborate effectively with AI; and use AI as a tool online, at home, and in the workplace.” Georgia Tech, 2020



AI Literacy: Why Everyone Needs to Learn AI



Priyansha Mishra

Slowing down, looking out | Built OnHerWay to Empower 1B Women Travellers | Microsoft | MIT Manipl'19

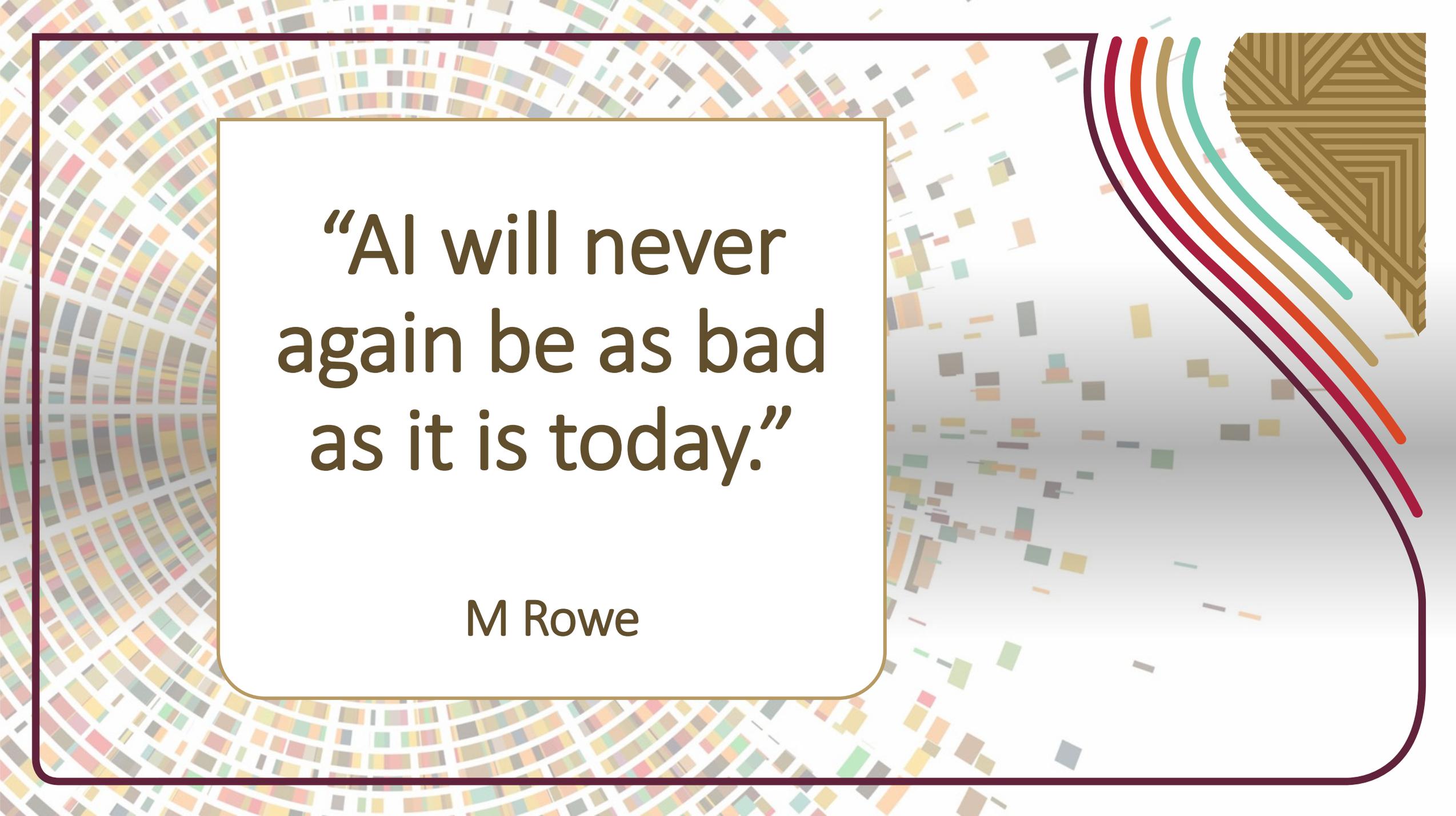
Published Nov 3, 2020

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If you're reading this, AI is a part of your everyday life.

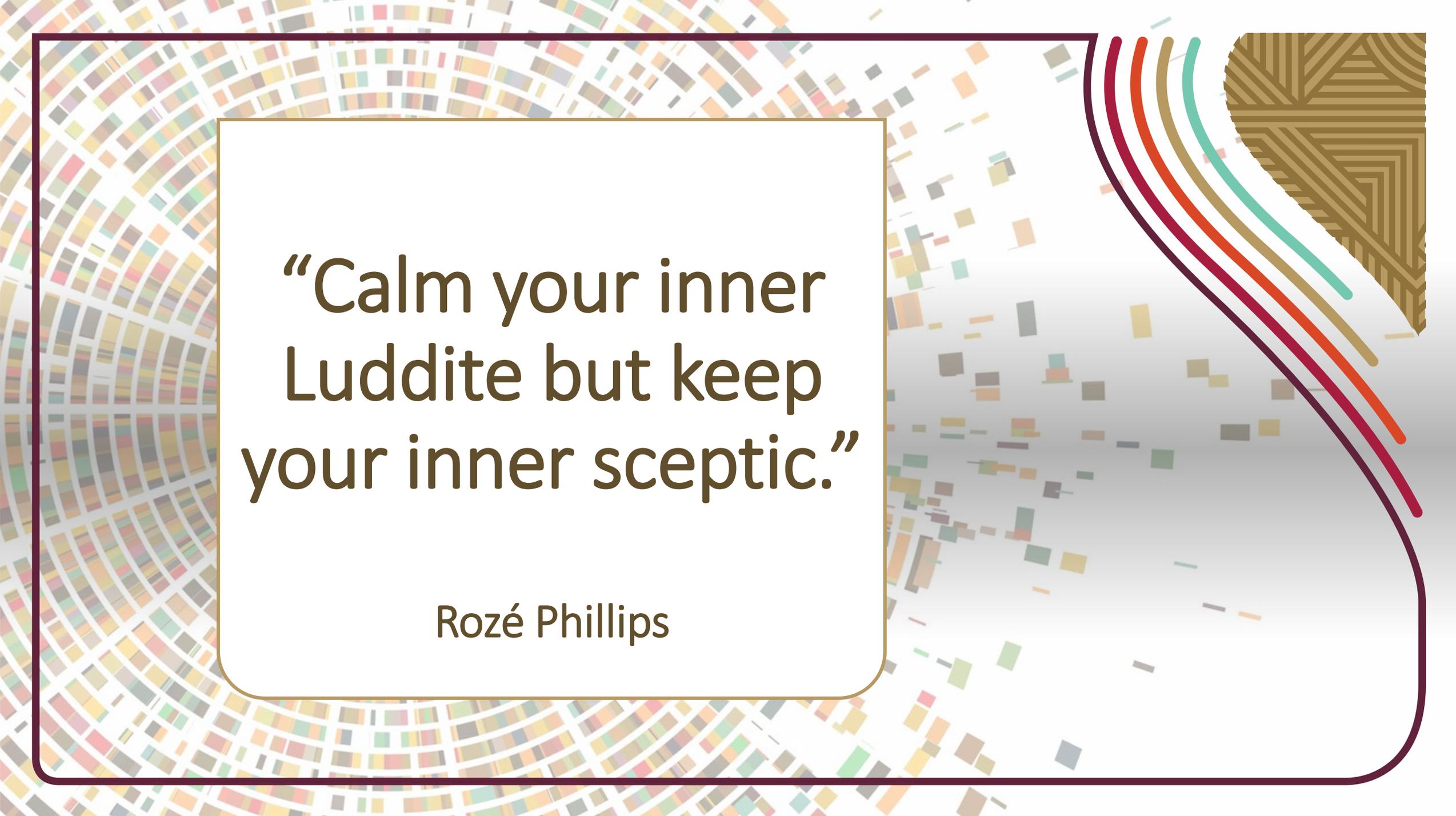


[If ChatGPT] can do a job as well as a person, then humans shouldn't duplicate those abilities; they must surpass them. The next task for higher education, then, is to prepare graduates to make the most effective use of the new tools and to rise above and go beyond their limitations. That means pedagogies that emphasize active and experiential learning, that show students how to take advantage of these new technologies, and that produce graduates who can do those things that the tools can't.



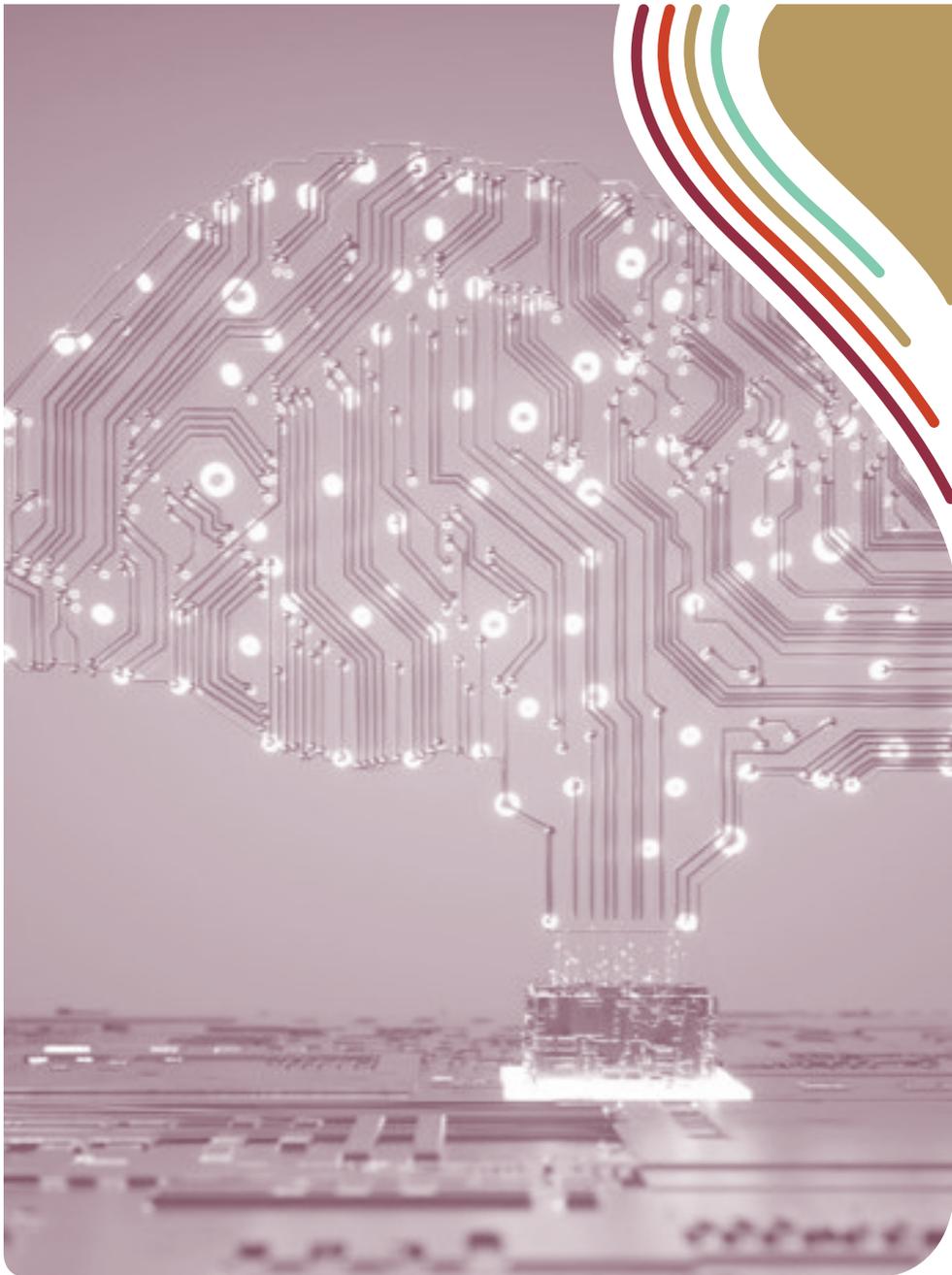
“AI will never
again be as bad
as it is today.”

M Rowe



“Calm your inner
Luddite but keep
your inner sceptic.”

Rozé Phillips



Upcoming conversations

- AI enabled learning spaces
 - Auxin: 23 May, 12:45-13:45
- AI-resilient summative assessments
- AI in undergraduate research
- AI and ethics

Do you want to participate and be rewarded for it?

AI literacy

in HE teaching,
learning and assessment

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