Getting beyond the headlines: The role of AI in higher education

DR ALEX BOLS
DEPUTY CEO, GUILDHE

ALEX BOLS | DEPUTY CHIEF EXECUTIVE OFFICER
ALEX.BOLS@GUILDHE.AC.UK | @ALEXBOLS

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Dr Alex Bols, Deputy CEO | alex.bols@guildhe.ac.uk | @alexbols

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9 May 2023

Mail Online

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The New York Times

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A.I. Poses 'Risk of Extinction,' Industry Leaders Warn

Leaders from OpenAI, Google DeepMind, Anthropic and other A.I. labs warn that future systems could be as deadly as pandemics and nuclear weapons.

THE TIMES

EDUCATION

AI's rise prompts university to bring back traditional exams

Students at the University of Glasgow say their revision plans are in disarray after a late decision to switch the test format

The Telegraph

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More than half of university students use artificial intelligence tools to prepare their work

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Scientific Journal Publishes Paper With AI-Generated Introduction

A high-profile journal has published a paper featuring an AI-generated introductory sentence.

Contents lists available at ScienceDirect

Surfaces and Interfaces

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The three-dimensional porous mesh structure of Cu-based metal-organic-framework - aramid cellulose separator enhances the electrochemical performance of lithium metal anode batteries

Manshu Zhang [a,1], Liming Wu [a,1], Tao Yang [b], Bing Zhu [a], Yangai Liu [a,*]

[a] Beijing Key Laboratory of Materials Utilization of Nonmetallic Minerals and Solid Wastes, National Laboratory of Mineral Materials, School of Materials Technology, China University of Geosciences, Beijing100083, China
[b] College of Materials & Environmental Engineering, Hangzhou Dianzi University, Hangzhou 310036, China

ARTICLE INFO

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Lithium dendrites
CuMOF-ANFs separator

ABSTRACT

Lithium metal, due to its advantages of high theoretical capacity, low density potential, is used as a negative electrode material for batteries and brings grea of energy storage systems. However, the production of lithium metal dendrit poor safety, so lithium dendrites have been the biggest problem of lithium met the larger specific surface area and more pore structure of Cu-based metal-org (CuMOF-ANFs) composite separator can help to inhibit the formation of lithiu mA/cm^2, the discharge capacity retention rate of the Li-Cu battery using the C %. Li-Li batteries can continue to maintain low hysteresis for 2000 h at the show that CuMOF-ANFs composite membrane can inhibit the generation of l cycle stability and cycle life of the battery. The three-dimensional (3D) porou separator provides a new perspective for the practical application of lithium

1. Introduction

Certainly, here is a possible introduction for your topic:Lithium-metal batteries are promising candidates for high-energy-density rechargeable batteries due to their low electrode potentials and high theoretical capacities [1,2]. However, during the cycle, dendrites forming on the lithium metal anode can cause a short circuit, which can

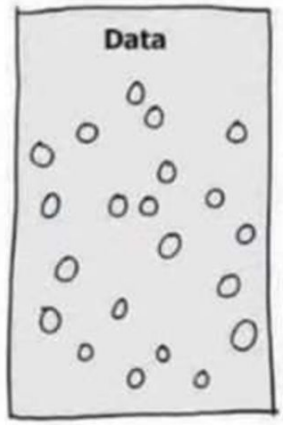
chemical stability of the separator is equa the separator remains intact and does no ence of the electrolyte or other battery co separator helps to prevent the formatio further promote dendrite growth. Rese different materials and designs for sep chanical strength and chemical stabilit

Senior leader views on AI

"AI is the key to changes in education going forward not just in three years, assessment has to change at every level and we need to train our future learners in how to use it for good."

"As AI accelerates, pressures will grow on institutions to keep pace. There is a significant risk that issues of digital exclusion will grow considerably, and universities will be challenged to respond. Moreover, the growing financial pressures on universities will lead to growing disparity across the sector in how individual institutions are able to keep pace. Are the benefits of AI to be felt by the many or the few?"

"How we adapt to and integrate AI into Higher Education is certainly going to have a huge impact - it requires all staff to change and rethink their approaches, and not all are willing to do that."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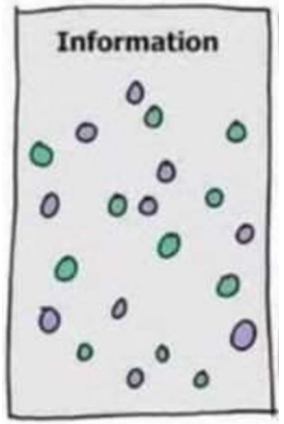
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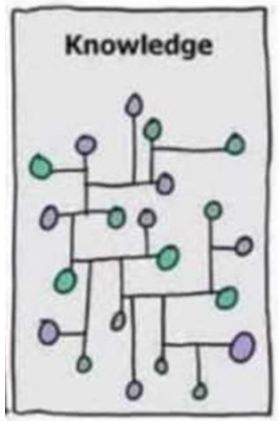
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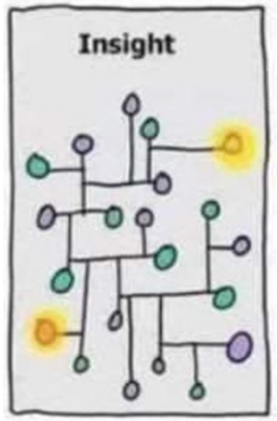
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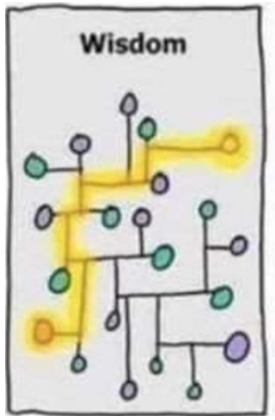
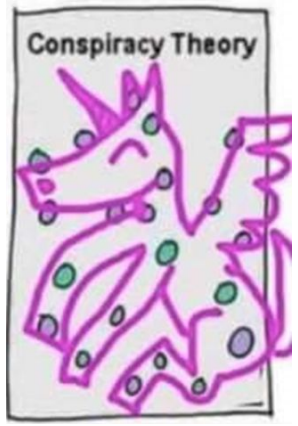

Wisdom


Conspiracy Theory

Students and AI

ALEX BOLS | DEPUTY CHIEF EXECUTIVE OFFICER
ALEX.BOLS@GUILDHE.AC.UK | @ALEXBOLS

Key areas of student interest

- **Using AI**
  Understanding uses and limitations of AI
- **Academic integrity**
  Guidance on allowable use vs plagiarism
- **Skills development**
  Employer expectations and impact of automation
- **Digital inequality**
  Access and affordability
- **Student data**
  Who owns what data and safeguarding privacy
- **Intellectual development**
  Potential over-reliance on AI and impacting engagement

HEPI Survey Feb 24 – students views

- **More than half of students (53%) have used generative AI to help them with assessments**. The most common use is as an 'AI private tutor' (36%), helping to explain concepts. Only 5% of students put AI-generated text into assessments without editing it personally.

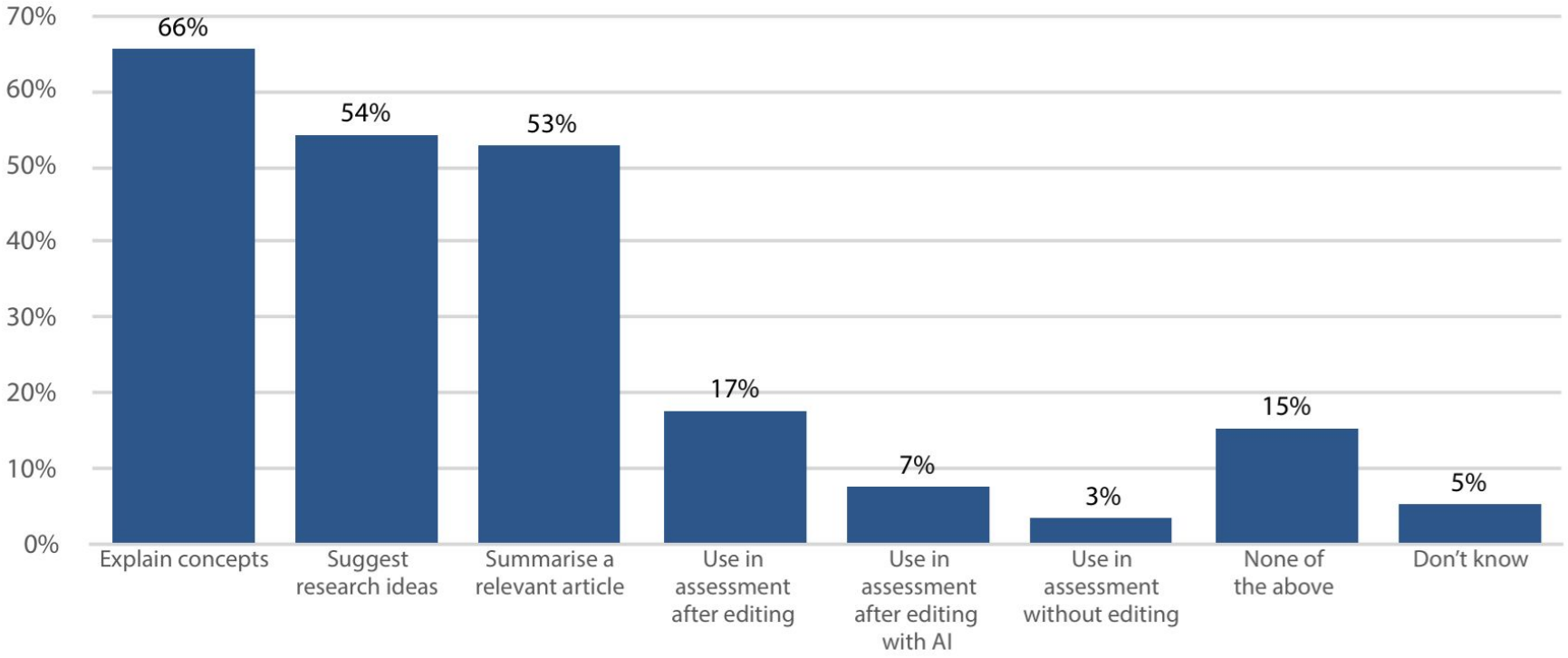
- **More than a third of students who have used generative AI** (35%) do not know how often it produces made-up facts, statistics or citations ('hallucinations').

- **A 'digital divide' in AI use may be emerging.** Nearly three-fifths of students from the most privileged backgrounds (58%) use generative AI for assessments, compared with just half (51%) from the least privileged backgrounds.

HEPI polled 1,250 UK undergraduate students on their attitudes to generative artificial intelligence (AI) tools such as ChatGPT HEPI-Policy-Note-51.pdf

HEPI Survey Feb 24 - students views

Figure 7: 'Which of the following would you typically consider an acceptable use of generative AI for assessed work? Please tick all that apply.' All responses.



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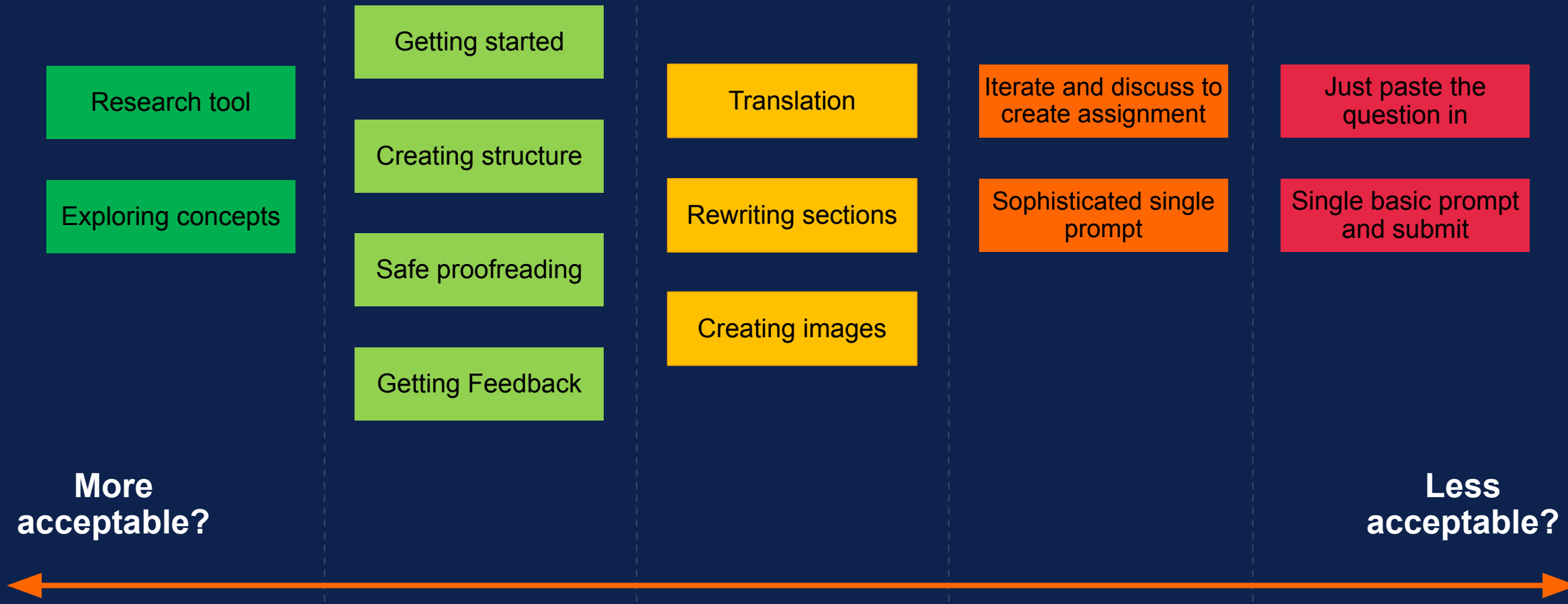
Ways students are using ChatGPT



Jisc

	Notes	Monthly cost
Grammarly	Including generative AI	£10
Midjourney	Image Creation	£8*
ChatGPT Plus	Latest GPT and plugins	£16*
Writesonic	AI powered writing tool	£13*
Gamma	Presentations	£13
Scite.ai	AI powered research assistant	£16*
Total		£77

Staff and AI

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ALEX.BOLS@GUILDHE.AC.UK | @ALEXBOLS

Staff engagement with AI

- **Responsibility for AI**
  - Recent survey showed that more than half (56 percent) of those surveyed* said they have new responsibilities in the job descriptions relating to AI strategy
- **Training needs**
  - Lack of formalized training at institutions: only 56 percent of universities train their faculty members in AI
  - What is the balance between centrally delivered training and personalised experimentation
- **Teaching, research and administration**
  - Literature reviews, summarising a paper vs robust academic standards – ethical use including authorisation from ethics committee and transparent crediting
  - Personalised tuition, grading, lesson plans
  - Chatbots for more routine student queries
  - Policies, drafting emails

* https://www.insidehighered.com/news/tech-innovation/artificial-intelligence/2024/02/13/how-ai-has-begun-changing-university-roles

Universities and colleges and AI

ALEX BOLS | DEPUTY CHIEF EXECUTIVE OFFICER
ALEX.BOLS@GUILDHE.AC.UK | @ALEXBOLS

Moving from experimenting to embedding AI

Approaching and understanding

- Interested in AI
- Understanding how it has impacted or is transforming other sectors

Experimenting and exploring

- Experimentation and pilots within existing processes and with existing AI enabled tools.
- Data culture to support AI emerging
- Responsible AI processes established

Operational

- Institutional AI principles established
- A systemic approach to staff AI skills and literacy
- Use of everyday AI institution wide.
- Task specific AI used for one or more processes across an organization eg chatbots for a specific purpose or adaptive learning systems

Embedded

- AI embedded in strategy
- Data maturity allows AI to be considered for all new systems and processes
- Mature processes to manage the lifecycle of all AI products, including procurement and continuous monitoring

Optimised /Transformed

- AI is supporting the delivery of learning that optimises opportunities and outcomes for all learners
- The right tasks are automated, freeing staff time for creativity and human interaction.

Data Maturity

Conclusion

Students: supported to use AI appropriately, ethically and tackling digital divides

Staff: supported to use AI through training and the space to experiment and innovate

Institutions: have the investment and advice to embed AI appropriately

"use AI to think with you, not for you" Mary Curnock Cook

THANK YOU!

ANY QUESTIONS?

ALEX BOLS | DEPUTY CHIEF EXECUTIVE OFFICER
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