

Aditya Sanyal ¹ and Andrew Williams ²

¹ UCL Medical School, Faculty of Medical Sciences, UCL
² Division of Medicine, Faculty of Medical Sciences, UCL

Background

AI literacy refers to the knowledge and skills needed to understand, use and evaluate AI technologies, including engaging with AI ethically and responsibly across different contexts.

The rapid rise of generative AI models is reshaping higher education, challenging traditional approaches to assessment and teaching practices. Concerns over biased or inaccurate outputs and data privacy present significant barriers to its safe and effective adoption. Understanding educators' AI literacy is therefore essential for supporting the ethical and equitable use of generative AI.

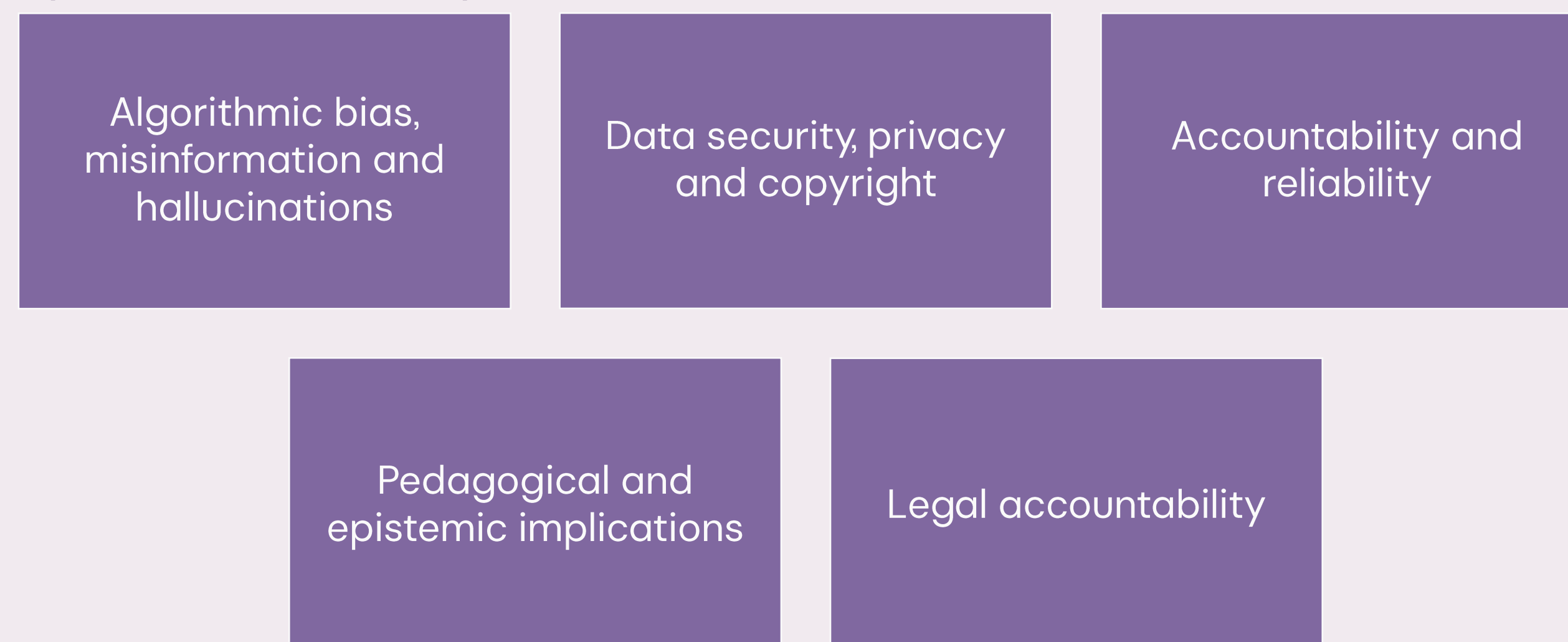
Aim

To explore university educators' perceptions of their AI literacy in the context of generative AI in higher education.

Method

A cross-sectional mixed-methods survey was distributed to academic staff across all departments within UCL.

The questionnaire comprised of 5 domains:



The survey consisted of 5-point Likert-scale questions and one open-ended questions covering the five domains of ethical AI literacy.

Mean perceived AI literacy scores were calculated from responses to the 6 corresponding Likert scale questions for each domain, with higher scores indicating greater perceived literacy.

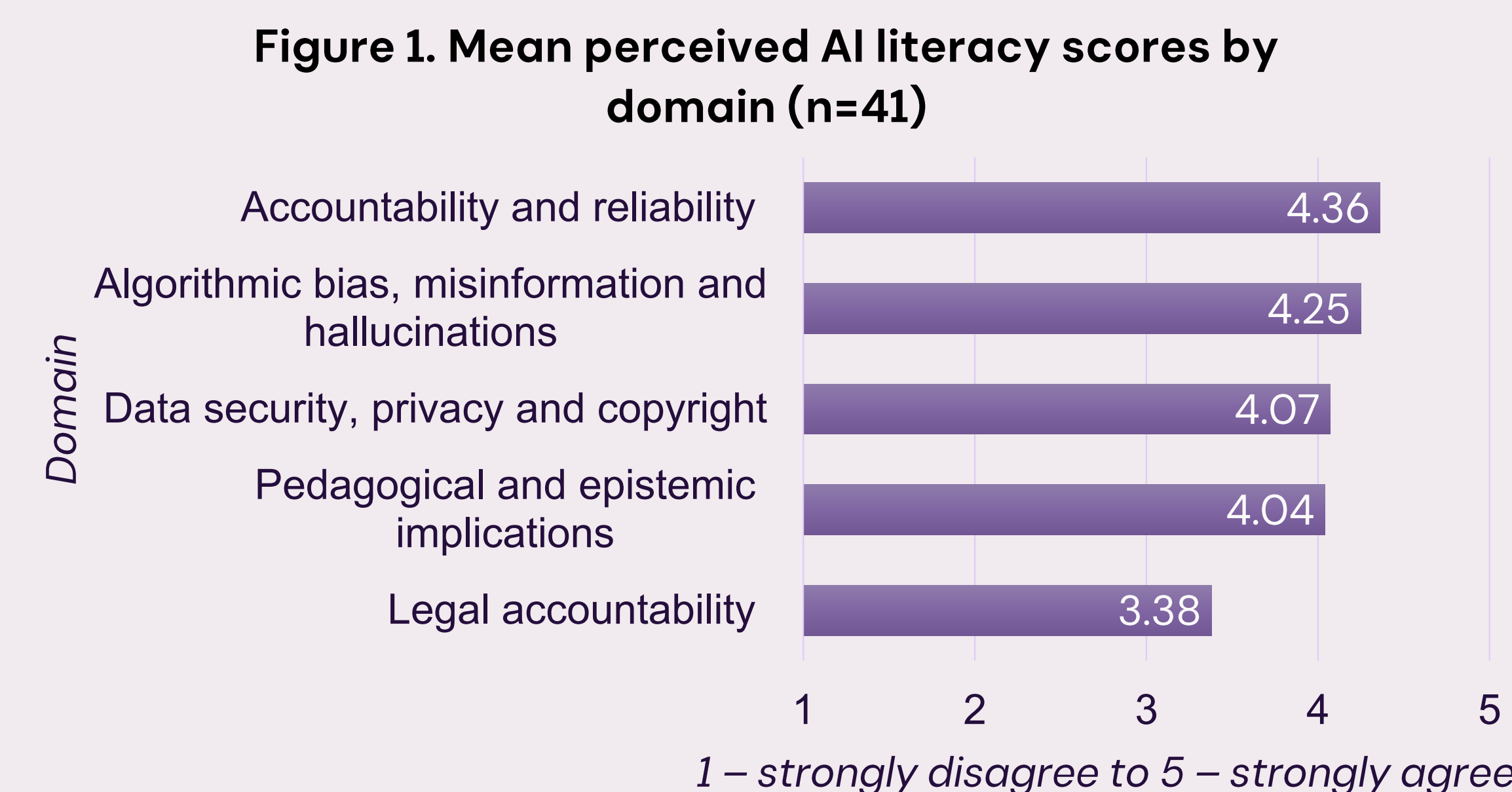
A final open-ended question asked what guidance would best support university academics in using GenAI ethically and responsibly in teaching.

References

- Bittle, K. and El-Gayar, O. (2025). Generative AI and academic integrity in higher education: A systematic review and research agenda. Information, [online] 16(4), p.296. doi:10.3390/info16040296.
- Chiu, T.K.F., Ahmad, Z., Ismailov, M. and Sanusi, I.T. (2024). What are artificial intelligence literacy and competency? A comprehensive framework to support them. Computers and Education Open, [online] 6(6), p.100171. doi:10.1016/j.caeo.2024.100171.
- Miao, F. and Cukurova, M. (2024). AI competency framework for teachers. UNESCO.
- Williams, A. (2026). An integrated AI literacy framework for higher-education teachers: a critical review and conceptual synthesis. Cogent Education, 13(1). https://doi.org/10.1080/2331186X.2026.2698137

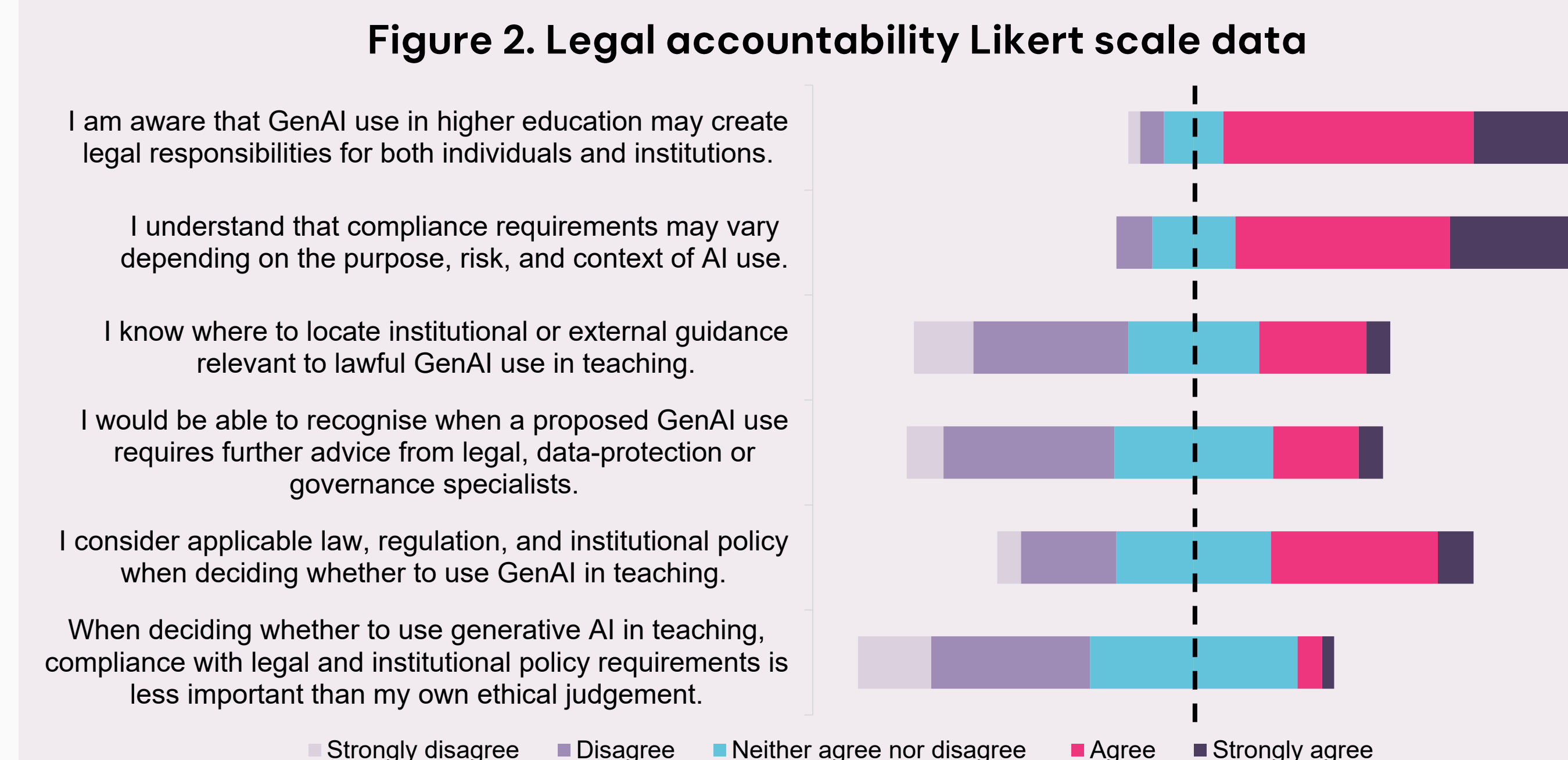
Results

Figure 1. presents mean perceived AI literacy scores across the five domains, with accountability and reliability scoring the highest.

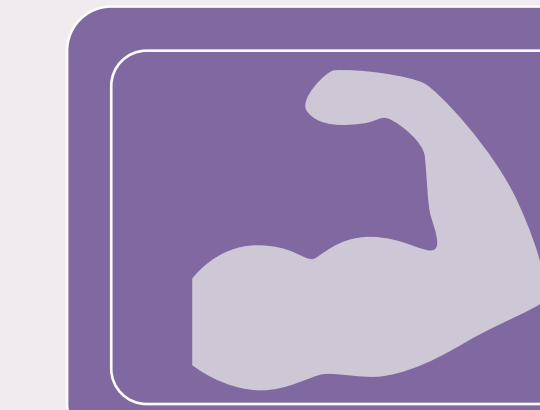


- 97.6% agreed that GenAI can reproduce or amplify social, cultural or disciplinary biases, but only 46.4% felt confident designing learning activities that help students critically interrogate GenAI outputs for bias and misinformation (n=41).
- 90% were aware of the risk that students may treat GenAI as an unquestioned epistemic authority, but only 30.7% felt confident supporting students' metacognition when GenAI is incorporated into learning activities (n=40).

Figure 2 shows the wide distribution of responses across the legal accountability domain.



Discussion



Ethical awareness doesn't always translate into practice

- Educators were comfortable identifying risks of irresponsible GenAI use, but perceive greater challenges applying this in teaching



Legal accountability was the lowest scoring domain

- There is low confidence in how to approach potential legal issues that may arise from GenAI use, including who owns GenAI output



Educators want training on effective GenAI use

- Open-ended responses highlighted demand for case studies and assessment guidance, with a focus on practical examples

Limitations

- Small sample size (n=41) -> although this is preliminary data, as the survey is still ongoing
- Potential volunteer bias: educators with greater interest, experience or concern regarding GenAI may have been more likely to participate
- Social desirability bias: participants may report what they believe they should do, rather than what they actually do

Next steps

- Larger and more diverse samples: more career stages, more faculties, more teaching roles, more universities
- Combining self-report questionnaires with performance-based assessments to get a better understanding of AI literacy in practice

Conclusion

The findings highlight an ethical-operational divide in educators' perceptions of AI literacy, with strong recognition of GenAI's risks but greater uncertainty around applying this knowledge in practice. To bridge this divide, there could be better signposting to existing training resources for UCL staff and/or updating these resources to address the gaps in AI literacy.

Acknowledgements: I would like to express my sincere gratitude to the Laidlaw Foundation for funding this research, and to Professor Williams for his invaluable guidance and support throughout the project.