Accessible AI in Higher Education:

Building Institutional capacity for student-centred approaches to digitally enhanced learning and assessment

21 February 2025

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Accessible AI in Higher Education: Building Institutional capacity for student-centred approaches to digitally enhanced learning and assessment

Workshop Report, 21st February 2025

An **Accessible Digital Futures** event co-hosted by Cambridge University Information Services (UIS) and Cambridge Digital Education Futures Initiative (DEFI) at Hughes Hall, Cambridge.

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Key findings

- There is a need to ensure and improve basic digital literacy to prevent the adoption of AI tools widening the digital divide.

- Policies for use of AI tools in assessments should be human-centric and focused on delivering pedagogical human learning rather than institutional efficiency gains.

- A Maturity Model for Embedding Accessibility can give institutions a roadmap for the adoption of digital accessible technologies throughout their organisations.

- Adopted well, AI technologies offer helpful support to students with accessibility needs. Thus, institutions should adopt an anticipatory, empathetic approach in devising proactive policies for the use of AI to meet students' accessibility needs appropriately.

- Legal due diligence to ensure accessibility, inclusivity, and useability remain important.

- The sector should look to adopt training and development, guidance, and procurement frameworks to ensure accessibility in digital and AI technologies.

- There is a need for knowledge exchange, sector leadership, and international collaboration to develop industry standards and share experience.

Introduction

On 21 February 2025, Jisc, the Glenlead Centre, Cambridge Digital Education Futures Initiative (DEFI), and Cambridge University Information Services (UIS) hosted an **Accessible Digital Futures (ADF)** workshop at Hughes Hall College in Cambridge.

The workshop brought together thirty-eight stakeholders from across higher education for an afternoon of presentations, intense discussion, knowledge-sharing, and insights. The objective was to identify and explore barriers and solutions to ways the sector can promote, adopt, and ensure accessible digital technologies that work for all.

The workshop focused on two topics:

- **The challenges digital technologies, and especially AI, pose for assessments.**
- **The need to bring stakeholders together to create roadmaps for sectoral and institutional change.**

ADF is a collaboration between Jisc and the Glenlead Centre and the Cambridge workshop was our last activity for Stage 1 of the project. The issues examined ranged from procurement through to policy alignment and sector needs. To close Phase 1, in our fourth workshop mapping the terrain, we asked participants for input into the design and objectives for the next stage of the project.

The workshop summarised in this report, featured presentations by George Chapman (University of Cambridge), Professor Bryan Maddox (DEFI), Dr Kevin Martin (DEFI), and Professor Samuel Greiff (Technical University Munich). The afternoon also featured two separate group workshop activities. The first activity was facilitated by Dr Neha Gupta (Warwick Business School), and the second activity was facilitated by Kellie Mote (Jisc) and Dr Ann Kristin Glenster (Glenlead Centre).

Presentations

AI-Empowered Skills: Unlocking Potential or Creating New Gaps?

Professor Samuel Greiff (Technical University Munich)

The afternoon kicked off with a thought-provoking presentation by Professor Samuel Grieff addressing educational monitoring and its effectiveness. Professor Grieff began by sharing research findings on how AI is changing the skills needed in the future. Looking at how AI is impacting and even transforming education, he set out three provocations:

1. AI can easily boost task performance but will impoverish human learning.

2. No AI literacy without foundational skills: More skills to acquire, to teach, and to assess are needed.

3. With AI, the digital divide will be larger than before.

The key takeaways from the provocations were:

- **First,** while AI can make students perform better at specific tasks, these efficiencies do not automatically translate into human learning. This raises questions about the purpose of the adoption of AI by the sector, and it could be suggested that perhaps **current adoption strategies are focusing more on institutional needs** (such as assured position in comparative rankings or efficiencies in terms of hours needed for marking) **rather than the human-centric student needs.**

    Following on, questions arise **whether sought after AI efficiency gains will benefit students with accessibility needs disproportionately or**

differently than other students, and what implications that may have for institutional AI strategies and policies.

- **Second,** Professor Greiff highlighted the **need for basic digital literacy** before AI is added to the educational mix. Introducing AI tools to students who cannot master basic digital literacy is likely to defeat its purpose and may add barriers to learning.

- **Third,** unless policymakers, the sector as a whole, institutions, and individual educators adopt specific policies to level the playing field, the introduction and **rapid adoption of AI tools in education is likely to widen the digital divide.**

Helpfully, to address these challenges, Professor Greiff suggested three solution-oriented approaches:

1. Place **human learning in the spotlight.** Do not focus on short-term performance improvement.
2. Teach students **AI literacy,** equip institutions, enable educators, start early.
3. Counter the digital divide through **accessibility, fairness,** and **transparency.**

Professor Greiff concluded his presentation by emphasising that the goals for policymakers, institutions, and educators must be on identifying a path that will ensure that all students attain high human *and* AI-empowered skills.

In short, **AI tools cannot replace human learning.**

Anticipating Inclusive Assessments in Higher Education through the lens of Digital Education Futures

Professor Bryan Maddox (DEFI)

Professor Maddox next presented on inclusive assessments. His presentation gave a brief theoretical overview of competing visions of validity and test fairness; this highlighted the differences between '**validity as standardisation**' and '**validity in diversity and personalisation**'.

Professor Madox set out trends adopting AI tools to facilitate:

- Inclusive design in assessments
- Interactive assessments
- Collaborative assessments
- Personal assessments

These trends see more automated content design and marking supported by increasingly invasive AI models.

Of concern, Professor Madox also evidenced a countertrend towards more 'traditional' notions of assessments, such as pen and paper or oral examinations. Such a move is often occurring amid a **general pushback against diversity, equality, and inclusivity** (DEI) agendas, which is likely to pose challenges for students with accessibility needs. Thus, **some of the gains made to ensure fair assessment conditions for students with accessibility needs may be at risk** if institutional policies react to AI by adopting old (and therefore perceived as risk-proofed) assessment methods.

Not all is lost.

Professor Maddox tempered his outlook by also acknowledging that there were some indications of automated AI coding designed to support improved inclusivity.

So where does this take us?

To close, Professor Maddox invited us to imagine our preferred futures for inclusive assessment. In his appraisal, exam boards or their equivalent are key places to discuss, monitor, and appraise digital assessments, including how their efficacy in relation to inclusion. Their appraisal should not be limited to evidence of ongoing practices but also be encouraged to be used to identify was for future improvement. This will require expanded feedback loops in AI-based assessment systems.

Imagining inclusive assessments also **offer opportunities for improved information, transparency, and accountability.** It is now up to the sector to decide whether it is up to the task and pursue these opportunities and **to ensure that assessments are indeed accessible and fit for the skills needs of the future.**

Maturity Model for Embedding Accessibility

George Chapman (University of Cambridge)

Our third presentation was given by George Chapman, Digital Accessibility Specialist at the University of Cambridge. His topic was embedding digital accessibility into institutional architecture.

Chapman began by illustrating the interplay between the three difference concepts of **accessibility, usability,** and **inclusivity,** and how each concept was addressed by different regulatory frameworks:

- Accessibility (disability focus): WCAG 2.2; PSBAR 2018

- Inclusivity (diversity focus): Equality Act 2010; Disability Discrimination Act 1995

- Usability (task focus): ISO 9241

Having set out these frameworks, Chapman drew upon his own work at Cambridge to illustrate how an institution could use a **Maturity Model** to embed digital accessibility within its organisation.

Chapman illustrated the utility of a maturity model by walking the workshop participants through five levels of where an institution is on its journey to embed policies and practices that deliver accessibility, inclusivity, and useability. The five levels are: (1) informal, (2) defined, (3) repeatable, (4) managed, and finally (5) best practice.

A key advantage of using a **technology-agnostic model** is that it prevents the assessor with a scorecard which will not only evaluate but also provide actions needed to be taken to achieve the next level of maturity.

Such a model also offers a means by which institutions can **benchmark** their level of accessibility against other organisations who have adopted the same methodology of assessment.

Workshop Activities

Activity 1: AI for Students: Navigating Barriers to Inclusion and Adoption,

Dr Neha Gupta (Warwick Business School)

The first workshop of the afternoon was designed and facilitated by Dr Neha Gupta.

The activity first examined empirical evidence of students' use of AI tools.

For the first part of the workshop activity, Dr Gupta asked the participants in groups to identify the 'sweet spot' between labour intensive, human assessment activities, such as marking essays or conducting oral examination discussions, and automated AI-driven assessments, such as MCQs. She noted that while the automated assessments optimised rote learning, they were **not as pedagogically effective in producing human learning for life.**

For the second part of the workshop activity, Dr Gupta asked the participants to reflect on the terms AI literacy and Digital Accessibility. She asked if there is a difference between these terms, and if so, its significance. This led participants to query the purpose of AI literacy: For whom? Individuals? organisations?

The group work revealed that context is important. Participants asked: *'assessment of what?'* and '*what is assessment in the world of AI?*' Which prompted one participant to observe that going forward, **assessments will no longer be what they were before the age of AI.**

Participants noted that AI literacy needed skills and competence frameworks, while digital accessibility with AI can impact self-sufficiency for people with access needs. There is increasingly overlap between AI literacy and digital accessibility.

Dr Gupta concluded her instructions by asking the open-ended question: **What do we need to realise AI literacy and digital accessibility?**

Workshop Discussion, Dr Ann Kristin Glenster

Next lead by Dr. Glenster, participants identified the broader themes in the workshop.

First, when asked to identify the wider themes of the actions that needed to be taken to realise more accessible use of digital and AI tools in higher education, the participants noted the need for senior institutional leadership. Without **buy-in and bravery from management,** necessary change was not thought likely to happen. The participants also discussed the need for leadership competencies, thereby reflecting the **need for digital literacy and AI literacy throughout all parts of an institution**, which was emerging as a core theme of the day.

Second, participants considered that some approaches were not fruitful, such as making policy-decisions regarding accessible AI assessments in committees. Instead, participants suggested a **GDPR-style legal compliance requirement** whereby a dedicated person would be held accountable for the implementation of accessible digital technologies across the institution.

Third, participants also highlighted the need for an **anticipatory approach**, noting that many felt that the **technological advances (and adoption by students) vastly outpaced institutional capacity for policymaking and adoption of practices.** This part of the discussion tied directly back to Professor Greiff's provocation about the **possibility of AI tools widening the digital divide** as certain students and institutions would be better resourced to adapt and integrate AI policies and tools than others.

Fourth, the on the question of policy and initiative ownership, divergent views emerged among participants. While some favoured centralisation in institutions and the sector, others cautioned against centralisation. Rather, they advocated for an incremental approach, whereby educators and departments could adapt AI and digital technologies according to their maturity, resources, and needs (echoing George Chapman's presentation on the Maturity Model for Accessibility).

Fifth, and finally, participants emphasised the **need for the human element** in readying higher education for the AI revolution. The need for empathy, human champions, and knowledge-sharing was highlighted as critical factors in helping higher education transition to the age of AI.

Activity 2: Co-creating a model for transformative collaboration

Kellie Mote (Jisc) and Dr Ann Kristin Glenster (Glenlead Centre)

As the second workshop activity, Kellie Mote and Dr Glenster asked the participants to use the helix innovation model to identify stakeholders and activities needed to foster transformative collaborations.

The purpose of the exercise was to build on the findings of Stage 1 of the ADF to design the next stage of the project and the activities that are most likely to lead to the uptake and embedding of digital accessibility across higher education.

Kellie Mote asked the participants to draw the connections between and role of five categories of stakeholders when answering two questions. The categories were: **(1) higher education, (2) industry, (3) government/policymakers, (4) disability /civil groups, and (5) environmental sustainability.**

The participants were divided into groups and asked the following questions:

Question 1	In ensuring truly effective collaboration to advance the accessible and human-centric use of AI in higher education, who from each category needs to be involved? (Be as bold as you like! These can be generic or specific people or organisations in the UK and/or internationally.)
Question 2	Accessibility is collaborative and innovation happens right at the cutting edge of practice. Sharing and collaborating are essential. How do we create and protect spaces where people come together?

Stakeholders' Role

Looking to the five groups of stakeholders,[1] the participants feedback can be distilled as follows:

<u>**Higher Education:**</u>

A wide range of organisations were identified, ranging from research councils to exam boards and sector bodies. Participants broadened the group of stakeholders to include further education institutions and providers of apprenticeships.

When it comes to how the higher education institutions work, there was an emphasis on the need for **empathy and champions, and anticipatory, inclusive design.** There is a need to predict or anticipate (future) student needs and for **knowledge exchange** and linking to other teams.

Also, it is important to develop definitions that are flexible enough to adapt to the specifics on a case-by-case basis and reflect the fact that no one size fits all.

<u>**Government and Policymakers:**</u>

Participants identified national government departments and policy-making organisations as key stakeholders to facilitate transformational change. There were debates about the relationship between national government and devolved authorities.

Broad policy frameworks were considered helpful, but it was also recognised that they could be source of barriers as well. There were also questions on how to make different Government departments and political agendas collaborate, especially given the nature of electoral cycles.

Participants highlighted **the importance of disability, accessibility, and AI legislation,** and the possibility of placing these issues on national and international agendas. Participants asked to be part of an **international community** and sought opportunities to worldwide collaborators.

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[1] For a list of named suggested stakeholders, see the Appendix at the end of the report.

Industry:

Participants noted that industry should include users in testing and developing products. There is a need for **international standards** groups and **due diligence requirements.** Some participants were concerned about **ethics** and potential conflict of interests.

Several participants voiced concerns about monopolistic ownership structures, lack of accountability, and potential conflict of interests. There was an appetite to explore whether British AI could play a greater role as Virtual Computing Environment (VCE) suppliers.

Participants identified needs for feedback between students and industry.

Disability/Civic Groups:

These groups were seen as important because of their **knowledge of lived experience,** charitable status, and activism. They play a specific role in helping students with accessibility needs "design for a future self."

Environmental Sustainability:

While universities have their own environmental sustainability goals and policies, participants thought it was important that institutions share practices to avert replication. Energy policies and energy use play significant roles.

The sustainability challenge must be contextualised and recognised that it is not isolated to higher education but **a societal challenge.** Participants observed that sustainability should also include **human sustainability.**

Literacy and Media:

Participants identified the importance of developing and instilling literacy skills in students to enable them to be critical of outputs, to find knowledge in different ways and the role of prompts and tools in the creation and curation of knowledge.

Participants specifically added a stakeholder category of media, noting **media's crucial role** in setting the agenda and the hype of AI was also noted. Participants queried the role of media, journalists, and the way AI and digital technologies were portrayed (and thus also accepted) by society.

There were also questions regarding **how culture can facilitate the transformation to accessible digital technologies.** It was believed that it is important to establish **shared goals and purpose**, driven by **empathy** and built on broad sector buy-in. The need for building coalitions was also mentioned.

In a more practical vein, participants also highlighted the **role of training and development, guidance, and procurement frameworks.**

Some participants wanted to take a more birds eye view and ask even **what is the role of higher education in society?** There was a need to ensure human capital development and not just economic and technical efficiency gains. To that end, participants probed the purpose of AI in education.

Conclusion

Where do we go from here?

Summarising the workshop findings, the sector has identified significant possibilities for the use of AI in assessments and more generally to deliver accessibility in higher education.

Yet, challenges remain. First, there is a challenge to adopt AI tools when many institutions, staff, and students struggle with basic digital literacy. Without the foundations, new AI tools are likely to widen the digital divide further. There is also the risk that institutions will adopt AI in assessments in haste to reap efficiency gains, and in doing so, pedagogical human learning will be lost. It will be vital for the sector top promote both teachers' and students' digital literacy to ensure that learning and assessments remain pedagogically robust and accessible, and focused on the human and not the machine.

Second, recognising the challenge ahead, institutions should specifically review the culture and values which are embedded into their approach to policymaking. Institutions should adopt an anticipatory, inclusive, human-centric, and empathetic approach in devising digital and AI policies. Sector leadership is needed to ensure that accessibility become a core feature in development and training, guidance, and procurement. Using tools such as ta Maturity Model can give institutions a roadmap to assess and improve their accessibility throughout their organisations.

Law and regulation remain important levers to ensure accessibility, inclusivity, and useability, which could be fortified with new due diligence requirements and industry standards. However, the sector is concerned that regulatory and legal updating is not rapid enough to keep pace with technological advances and adoption.

Third, the higher education sector needs to widen its view and institute collaborations with other stakeholders, including government agencies and departments, local authorities, civic organisations, and international collaborators.

And perhaps most of all, we must not be afraid. Education is evolving and to paraphrase one of the participants, AI is changing the very nature and function of assessments. Still, given the pace of technological change on top of a sector that is facing, for some, existential challenges, it is easy to understand how institutions and people may become even more risk-averse which could risk some of the accessibility gains which have already taken place.

So, we will need to find a way to embrace the future and the fantastic potential it holds for accessible, inclusive, and human-centric learning. We must find ways to encourage institutions, policymakers, government, civic organisations, and industry to work together to promote and reap the many benefits these technologies can bestow.

We may also need to be even bolder and dare to ask if the time has come to even rethink the entire purpose of education.

Digital and AI technologies are shaking the established institutional educational paradigm at its core. Placing human-centric learning, which must include accessibility, at the centre, we can develop and embrace a new paradigm of learning fit for the AI-driven world of tomorrow, where everyone has the right to learn and partake.

Sources & Resources

[Accessibility Champions and Sponsors – BDF](#)

[Accessibility fundamentals – Microsoft Learn](#)

[Accessibility Maturity Model – BDF](#)

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Isabel Fischer et al., (2024) *Making sense of generative AI for assessments: Contrasting student claims and assessor evaluations*, The International Journal of Management Education, Vol 22(3)

[Microsoft Accessibility Evolution Model](#)

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[The Accessible Technology Charter – BDF](#)

Appendix

Names potential collaborative stakeholders (listed alphabetically):

AI Institute for Security	Government & policymakers
Anthology	Industry
Anthropic	Industry
British Association of Teachers of the Deaf (BATOD)	Disability & civic groups
Business Disability Form	Disability & civic groups
Government Digital Service (GDS)	Government & policymakers
Central Digital and Data Office (CDDO)	Government & policymakers
DeepSeek	Industry
Disabled Students UK	Disability & civic groups
Department of Education	Government and policymakers
Department of Trade and Business	Government & policymakers
Digital Education Futures Initiative (DEFI)	Higher education
Environmental Association of Universities and Colleges (EAUC)	Environmental sustainability
Exam Boards	Higher education
Google	Industry
Jisc	Higher education
OpenAI	Industry
Office for Students (OfS)	Higher education
Panopto	Industry
PVC Ed	Higher education
Programme for International Student Assessment (PISA) (OECD)	Government & policymakers
Microsoft	Industry
National Association of Disability Practitioners (NADPS)	Higher education
National Union of Students (NUS)	Higher education/disability & civic groups
Research Councils and UKRI	Higher education
Royal National Institute of Blind People (RNIB)	Disability & civic groups
Turnitin	Industry
Universities and Colleges Admissions Service (UCAS)	Higher education
University and College Union (UCU)	Higher education
United Nations Educational, Scientific and Cultural Organizations (UNESCO)	Government & policymakers
Universities UK (UUK)	Higher education