Accessibility, Generative AI, and Empowering Disabled Students

Accessible Digital Futures Workshop Report,
Imperial College London

15 May 2024

Glenlead
Centre

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Dr Ann Kristin Glenster

Contents

Key findings

• **Student at the Centre:** Students must be at the centre of all institutional policies on the procurement and use of assistive AI tools.

• **Policies for AI Tools:** Higher education institutions need policies that address the fears of AI, that are clearly anchored in the institutional framework of accountability and responsibility, and that are sufficiently flexible to evolve with the technology.

• **Transparent and Coordinated Decision-Making:** Communication flows in the decision-making processes, both vertical and horizonal, are crucial for policy for and procurement of assistive AI tools.

• **A Procurement Checklist for AI Tool Vendors:** AI tool vendors need a checklist of factors for accessibility in their tools.

• **Sector Collaboration:** There is a need for collaboration and knowledge exchange across disciplines, professions, and institutions to meet the challenges and opportunities of AI in higher education.

Introduction

As part of **Accessible Digital Futures (ADF)** and in celebration of **Global Accessible Awareness Day**, the Glenlead Centre and Jisc delivered an in-person professional networking workshop in partnership with Imperial College London on 15 May 2024. The workshop was attended by participants from fifteen universities and from industry.

Starting with the revolutionary impact AI is having on assistive technologies, the workshop explored a wide range of issues and potential solutions that could be adopted across the higher education sector.

The workshop was hosted by Boquette Katatepe, Digital Accessibility Officer at Imperial and started with presentations by Jenny Rae, Chief Information Officer (CIO) at Imperial College London and Kellie Mote, Jisc subject specialist for accessibility and Co-Chair of ADF. The workshop sessions were facilitated by Dr Ann Kristin Glenster, Executive Director of the Glenlead Centre and Co-Chair of ADF.

The workshop that followed was organised in two sessions:

What & When: The first session explored the question of what and when by mapping how decision-making processes concerning AI and accessibility were distributed throughout the institutional architecture of higher education institutions.

How: The second session widened the lens to explore how the input factors of theory, policy, practitioners, industry, and students in the policies and practices of AI adoption are moulded by institutional cultures and daily life pressures, including limited resources, budget, and expertise.

Setting the scene

Setting the scene, Jenny Rae from Imperial College London shared her vision for placing accessibility at the core of the university's policymaking. Digitisation is a driving force for sectoral innovation which offers unique opportunities to embed equality in the digital institutional infrastructure.

In practice, it means ensuring that accessibility is engrained in (1) product development, (2) user experiences, and (3) developing a product-focused roadmap.

Jenny emphasised that this is a process. Imperial and the sector are still learning, and this workshop was a crucial part of that learning process.

ADF's Co-Chair Kellie Mote gave an overview of the project's activities and findings to date. She identified several key themes:

• Accessibility must be central and not built into the technology after-the-fact

• Educators, students, and staff experience AI hesitancy

• The workforce needs upskilling – new training programmes must be developed

• Safeguarding policies and practices are needed to ensure individual students using AI tools are safe and protected

• Students must have access to accessible AI tools across the higher education sector

Kellie emphasised how the student perspective is crucial, and especially in relation to supporting neurodivergent students writing and study capabilities.

She also noted sector concerns about the use of generative AI for assessments. Student feedback is important because they report how generative AI is beneficial to their educational experiences, but also students raise concerns about ethics, equity, bias, and accessibility when using these tools.

The higher education sector must ensure it is continuously able to update its position on AI in ways that integrates and aligns with students' perceptions, especially in relation to bias, inclusivity, and responsiveness. Students demand that AI tools are safe and inclusive.

Workshop framing

Dr Ann Kristin Glenster from the Glenlead Centre led the interactive workshop sessions. The participants were given a few overarching themes and problems to discuss. Ann Kristin began by drawing a simplified diagram illustrating the process of decision-making regarding the adoption of AI tools.
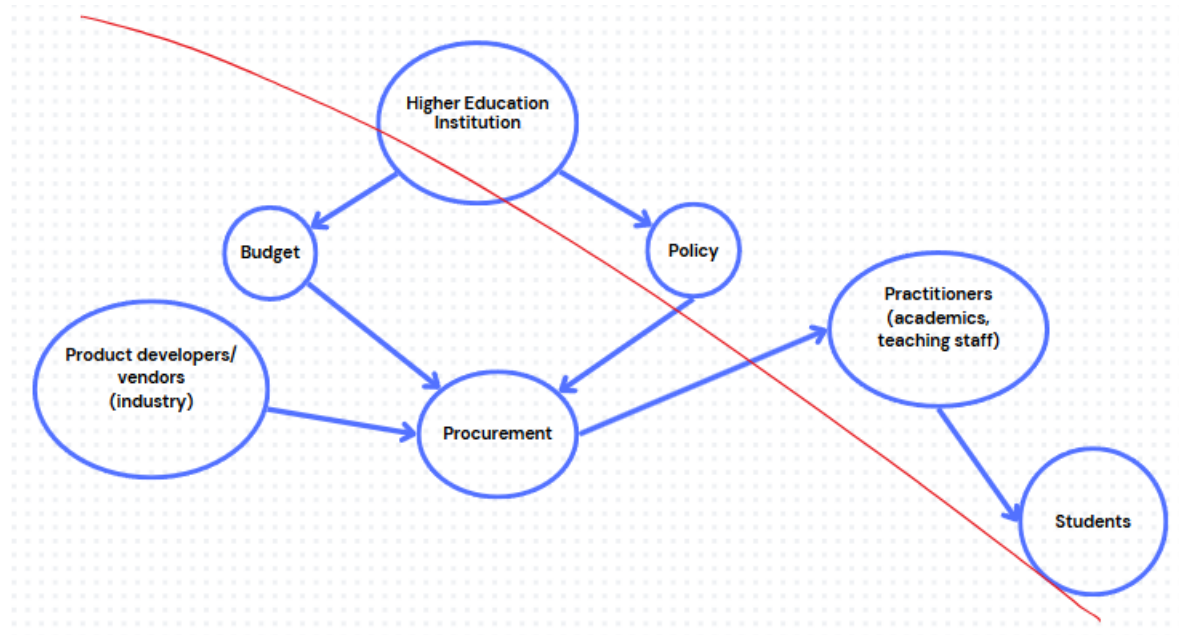
The diagram illustrates how decision-making concerning the procurement and adoption of AI tools may look like in a higher education institution.

AI tools vendors offer products to the procurement department, which makes its decision in part based on the institutions' budget and policies. Once a tool has been procured, it is passed on to the educators, staff and practitioners, and finally to the student for use.

As the diagram revealed, students were relegated to the far side as the end users with little influence. Thus, a key question that emerged from this session was how to shift the diagram to place the students, and not procurement, in the centre.

The diagram highlighted two key issues:

• First, it is often not clear where and how in the institutional framework, decisions about accessibility and AI are made and on the basis of what information. This is especially true in relation to procurement, use, and assessment of AI tools.

• Second, Ann Kristin drew a line across the diagram to illustrate that the risk-averse hesitancy of higher education institutions to embrace AI tools means students will procure and use these regardless of what the institution considers safe, equitable, inclusive, fair, and accessible practices. The absence of policies that encourage the use of AI tools means that students are exposing themselves to risks by being left to acquire these products for themselves.

Ann Kristin asked the participants to consider at what stage, how, and by whom decisions about accessibility and AI tools were made. Specifically, she asked the workshop participants to consider their institutions' decision-making processes taking into account:

1. **Ownership:** Who is responsible and accountable for which decisions?

2. **Informed:** What information do decision-makers need to make an informed decision?

3. **Influence:** Who in the institutional framework has the power to influence which decisions?

4. **Purpose:** What is the purpose of a specific decision?

In the second session, she asked how we can integrate ethical values such as empathy, tolerance, curiosity, and forgiveness into the process of devising and assessing policies for the use of accessible AI tools in higher education.

How can these values guide the paths for the development, adoption, and use of accessible AI tools? How can we integrate into our policies flexibility, acceptance, and understanding that our approach will not be perfect, and that mistakes will be made. How can we make room for errors, improvement, and critical reflection that is supportive and encouraging?

Workshop findings

Student in the Centre

The main finding of the workshop was that students must be at the centre of all policies for assessment, procurement, and pedagogical decisions regarding accessible AI tools. Workshop participants emphasised the benefits of personalised AI tools as assistive technologies, especially in regard to their potential for unlocking learning opportunities for neurodiverse students. Participants also believed that AI tools can help students with procrastination, ADHD, and dyslexia. Participants, nevertheless, raised questions regarding issues such as the impact on undiagnosed disabled students, and funding for accessible AI tools when these are personalised.

It is important to recognise that students are concerned about ethics, equity, and accessibility. Participants also queried whether students are able to differentiate between a good and poor AI tool. One participant worried that the use of AI tools could result in shallow learning promoted through short cuts, and thereby preclude opportunities for deep learning.

Participants were concerned that the institutional architecture in the sector took a top-down approach to policymaking, where the views of the students were kept at the bottom. The challenge of how to integrate meaningful student participation was mentioned repeatedly. Some participants thought there was a way to engage the student perspective by collaborating with student campaigns, the Office for Students (OfS), and Disabled Students UK.

There was a recognition of ***a misalignment between the policies of higher education institutions and what students are actually doing***. Participants noted that academics needed to keep up to date with what is happening in the world outside the institutions. To that end, there was concern about the perceived gap between what policies allowed for inside the higher education institutions and how students would be allowed to use AI tools in the workplace.

Policies must begin with what students already have access to through their institutions, for example, at Imperial College London, students have access to Microsoft's Copilot. This is not the case in all institutions.

Not having regulated use of AI tools means that students procure these themselves, which places them a risk of data protection violations, social harms, and inequalities as some will not be able to afford these tools. There is also lack of clarity about what falls within accepted academic conduct, sometimes because higher education institutions lack adequate policies.

Workshop participants suggested that by higher education institutions being risk-averse and not adopting policies that allowed for and encouraged the use of AI tools, students were 'left to fend for themselves'. In some sense, this could be seen as a failure on the part of educators. Consequently, ***for every day without adequate and clear policies, students are being failed.***

Policies for AI Tools

Workshop participants expressed strong views that policies for AI tools must be ethical and reflect the fact that the educators and practitioners know the students best. There is a need for co-design and collaboration, and mechanisms for sharing information with industry about the needs and practices of AI tool users to inform innovation.

Some participants asked for more recognition by the sector that ***AI might change the very way we teach.*** Participants were worried about bias being coded into the tools. There were fears about reliability, for example, whether AI tools made up information ('hallucinations') and concern about the data provenance of the data that had been used to train and develop the tools.

Participants asked how AI tools should be assessed in relation to reasonable adjustment requirements, or how a regulatory ethics framework could be sufficiently flexible to reflect different contexts. Some considered AI tools to be extraordinarily malleable (like 'clay'). This observation led to questions regarding the purposes for which, and the degree of creativity, stakeholders should be allowed in adapting and customising these tools.

Some participants queried who was responsible for AI in the institutional architecture, thereby revealing a gap in the framework for institutional accountability and responsibility. It was generally felt that this responsibility often fell on procurement departments.

Transparent and Coordinated Decision-Making

Participants identified institutional decision-making processes as barriers to the adoption of AI tools if people were 'not on the same page' or 'wavelength'. Participants acknowledged the importance of being able to identify and tap into issues which are cardinal to decision-makers.

Good decision-making processes are hampered by budget and resource constraints, lack of guidelines and policies, and concerns over academic conduct, including how misconduct could and should be evidenced.

Decision-making processes are also impacted by different stakeholders having different priorities. Several participants noted a power imbalance between who got 'seats at the decision-making tables,' particularly in devising procurement policies. There was repeated concern that students were excluded from these processes.

Communication flows across the institutional architecture was seen as essential for devising robust policies, procurement requirements, and pedagogies for accessible AI for the digital future. The phrase 'not listening' was repeated, for example management not listening to practitioners, or institutions not listening to students. Some felt that internal policymakers were not really listening, and that institutional use of committees did not lead to good and effective outcomes.

A big question was ***how can the sector get ahead?***

Procurement Checklist for AI Tool Vendors

Participants identified a pressing need for a mandatory 'procurement checklist' for AI tool developers and vendors, procurement departments, and higher education institutions. Some suggested that AI tools should not be procured unless the technology vendor could prove the pedagogical value and accessibility of all the features of the product.

Participants asked how the sector could change incentives and cost structures to stimulate adoption of AI tools. Procurement departments are already besieged by AI tools vendors offering a plethora of existing AI tools, without minimum requirements regarding how these tools had been tested or guarantees that they were safe and accessible to use.

Some participants asked for an iterative process whereby technology vendors must regularly **deliver proof of concept of the accessibility of their AI tools** throughout the tool's entire lifecycle. Guardrails for innovation are needed, bearing in mind that guardrails cannot remain static as the technology and challenges evolve.

Sector Collaboration

Participants called for greater sector collaboration. Participants asked for **an online resource hub and communications platform,** which could collate stakeholders' knowledge of good accessible AI solutions.

Some participants expressed concern that the sector is 'tinkering' around the edges while a radical paradigm shift was needed. Need for better sector collaboration was also contextualised with fears regarding the sector's financial sustainability as a whole. Some participants felt that the discourse needs to change from financial benefit to social return on investment. Participants also recognised that higher education institutions must dedicate funding to this work.

There is a disconnect between academia and industry. Industry is relentlessly moving ahead while higher education institutions, and the people in them, are not prepared. There is also a question of what other bodies, for example the British Psychology professional body, should be part of this work. There were questions of how to produce, integrate, and use evidence in developing solutions.

There was a question if a community could be created that collectively could come up with policies across institutions – this is important as it would save institutions from 'inventing the wheel' each time, yet also must be flexible enough to adapt to differences within the sector. A key question is how the sector can work together.