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Amplifying Student Voice to Embed Accessibility in Computer Science Education

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Teaching Accessibility in CS

- What does it mean?
 - Equipping students with the knowledge, skills, and values to create inclusive technologies.
- Why does it matter?
 - Around 1 in 6 people worldwide (1.3 billion) experience disability (WHO, 2023).
 - Digital technologies can either remove or create barriers.
 - Accessibility is increasingly expected in industry, legislation, and professional practice.
 - Inclusive design improves usability and user experience for everyone.
 - Computing graduates will design systems used by diverse populations.



PTAS Project

- The PTAS project explored perspectives on accessibility in learning, assessment, and curriculum design.
- These perspectives were gathered from students, educators, and representatives of industry and professional bodies, e.g. Teach Access, Skyscanner, UserVision.



PTAS Project – What Students Told Us?

- Students preferred learning through:
 - Real-life examples and lived experiences.
 - Authentic challenges with real-world relevance.
 - Industry engagement and professional perspectives.
 - Hands-on, practical activities.
 - Student-led initiatives and opportunities for ownership.



UKICER 2025 Co-located Workshop

- **UKICER:** Venue for researchers and practitioners to share advances in computer science (CS) education research.
- **Workshop Aim:** Explore challenges, opportunities, and practical strategies for embedding accessibility in CS education.
- **Participation:** About 20 people, including: CS educators, learning technologists, students and company representatives.



<https://www.ukicer.com/2025/index.html#collocated-events>



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UKICER 2025 – Lessons Learned

- Accessibility is often taught as a standalone or optional topic.
- Students engage more deeply when accessibility is embedded across learning experiences.
- Authentic activities are more effective than compliance-focused teaching.
- Lived-experience perspectives help students understand the human impact of accessibility.
- Industry partnerships strengthen the relevance of accessibility education.



From Student Insights to Educational Action

- Common themes across PTAS and UKICER 2025 Workshop:
 - Authentic learning
 - Experiential learning
 - Lived-experience perspectives
 - Accessibility embedded across learning
- These insights informed two early implementations:
 - Accessibility training for Teaching Support Providers (TSP).
 - AccessAlthon: a student-led, industry-partnered AI for accessibility hackathon.



Accessibility Training for TSP

- Integrated throughout the TSP training course.
- Relevant to all TSP roles (tutors, markers, demonstrators, TAs).
- Dedicated end-of-semester session on accessible teaching and learning.
- Provided practical guidance on inclusive teaching and assessment.



Accessibility Training – Insight From Survey

- Increased awareness of accessible teaching materials.
 - *“I also realised that my slides and teaching material need to be changed to make them more accessible.”*
- Greater focus on inclusive teaching practices.
 - *“I used the information to make students better aware of all the resources available to them.”*
- Better understanding of student support.
 - *“It made me more aware of what help and support other students and me can get.”*
- More proactive engagement with students.
 - *“I try to be more inclusive and understanding of how everyone behaves.”*



AccessAlthon – Accessibility-focused Hackathon

- **Aims:** To engage students in addressing real accessibility challenges through AI-powered solutions.
- **Approach:** Hands-on, challenge-based learning supported by industry experts and people with lived experience of disability.
- **Activities:** Launch event, keynote talks, mentoring, team development, final showcase, and awards.



<https://accessaithon2026.netlify.app/>



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AccessAlthon 2026

- **Duration:** 2 February – 2 March 2026
- **Participation:**
 - 122 students (35 teams) registered.
 - 51 students (18 teams) submitted.
 - 10 students (5 teams) received awards.
- **Partners & Sponsors:**
 - **Within UoE:** School of Informatics, AIWG, CSEG, CompSoc.
 - **Company:** Skyscanner, Google, User Vision, Teach Access.



Award ceremony at AccessAlthon 2026



AccessAlthon 2026 – Key Perspectives

■ From students:

- Learning accessibility from real needs.
 - *“Hearing from real people with real problems ... major highlight of my experience.”*
- Increased awareness and confidence.
 - *“It was a pleasure participating and learning more about accessibility.”*
- Inspiring future interest in accessibility.
 - *“...given me a strong foundation for developing my interest in assistive and accessible technologies.”*

■ From industry and community:

- Innovation and creativity.
 - *“The Skyscanner team were genuinely blown away by the innovation, creativity and genuinely accessible solutions we saw from the students.”*
 - *“Amazing to see students using AI to tackle real accessibility challenges.”*
- Human-centred accessibility.
 - *“Projects like Heard and Opal are a real reminder of what becomes possible when you start from the needs of real people rather than treating accessibility as an afterthought.”*



AccessAlthon 2026 – Beyond Formal Evaluation

- Several teams sought follow-on mentorship, industry connections, and pathways for commercialisation following the event.
 - Three teams expressed their intention to further develop and publish their applications on app stores.
 - One team secured the Scholars Enterprise Fund from the Mastercard Foundation Scholars Program Edinburgh to further develop and commercialise their solution.
- Student reflections shared publicly on LinkedIn:
 - “... a great reminder that some of the most impactful innovation in tech comes from building solutions that are human-centred, inclusive ...” – From CS student
 - “... this hackathon was so inspiring that I decided to be a software developer for the duration of the hackathon.” – From non-CS student



AccessAlthon 2026 – Lessons Learned

- Student voice is a powerful driver of educational innovation.
- Authentic, hands-on experiences deepen accessibility learning.
- Industry and lived-experience perspectives enrich student engagement.
- Incremental, student-informed changes can have lasting impact.
- Empowered students become champions for accessibility and inclusion.





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Thank you!

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