

Designing for All: Embedding Universal Design for Learning (UDL) with AI-enabled Networked Practice

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Intended Audience

This workshop is designed for educators, researchers and leaders across primary, secondary and higher education who are committed to inclusion, accessibility and digital transformation.

While the practical examples are drawn from primary education, the workshop deliberately focuses on design principles, networked professional learning practices and technology-enabled UDL strategies that are transferable across educational phases, including secondary and higher education.

Participants seeking to understand how technology and Artificial Intelligence (AI) can be used to design for learner diversity from the outset, and how digital pedagogy and networked learning practices support and sustain pedagogical change, will find this workshop highly relevant.

Workshop Description

Universal Design for Learning (UDL) provides a framework for creating inclusive, flexible learning environments that anticipate learner variability and reduce barriers before they arise. Yet in many schools, the *design* of UDL remains conceptual rather than practical. Technology and AI now make it possible to operationalise UDL at scale — enabling teachers to design, deliver, and adapt learning experiences that are accessible for every pupil.

The workshop is grounded in Networked Learning perspectives, positioning learning as a relational, collaborative and socially situated process rather than an individual or purely technical one. UDL is explored not only as a classroom framework, but as a shared design language that enables educators to co-construct inclusive practice across professional networks, supported by digital platforms and AI-enabled tools.

This workshop specifically explores how a UK multi-academy trust (Woodland Academy Trust) has embedded UDL across its five primary schools using a blend of iPad-based learning, AI-driven planning tools, and accessibility technologies. Participants will see how these digital systems bring the three UDL principles to life:

- **Multiple Means of Engagement:** AI planning assistants and adaptive feedback tools (such as Olex.AI and TeachMate) support teachers to personalise content, identify misconceptions, and sustain motivation through choice and relevance.
- **Multiple Means of Representation:** iPads enable translation, screen-readers, dictation, and text-to-speech features that make learning materials accessible for all, including multilingual learners and pupils with additional needs.
- **Multiple Means of Action and Expression:** Creative apps and multimodal platforms empower pupils to demonstrate understanding in different ways — video, drawing, audio, and interactive presentations — giving genuine ownership of learning.

The session situates technology as a design enabler rather than an add-on. AI tools assist teachers with workload-heavy processes — such as planning differentiation, generating accessible resources, and automating scaffolds — while maintaining teacher agency and professional judgement. The workshop will also critically examine ethical and pedagogical boundaries, such as data privacy, algorithmic bias, and the importance of human-centred decision making when using AI in classrooms.

Participants will leave with a clear understanding of how UDL, when supported by technology and networked professional collaboration, can transform inclusion from aspiration to everyday practice across educational contexts.

Participant Engagement

Participant engagement is designed in line with networked learning principles, emphasising dialogue, shared meaning-making, and the co-creation of knowledge across diverse professional contexts.

Participants will:

- Engage in a short diagnostic reflection on their current inclusion practices, identifying one barrier they regularly face in their classroom.
- Use digital design mapping to align UDL checkpoints with practical technological enablers — such as Apple accessibility tools, adaptive learning platforms, or AI planning supports.
- Identify how UDL-aligned, technology-supported design approaches can be adapted for secondary and higher education contexts through networked collaboration.
- Experience demonstrations of AI-enabled accessibility/scaffolding tools and reflect on their affordances and limitations.
- Participate in small-group, cross-phase design challenges that mirror networked learning practices, co-creating redesigned learning activities built on UDL + AI.
- Engage in a network-building activity to identify new collaborative partners and commit to peer-supported follow-up engagement.

Participant Outcomes

By the end of the workshop, participants will:

1. Understand how Universal Design for Learning (UDL) can be made practical through digital and AI-enabled tools in primary education.
2. Gain confidence in using accessibility features, adaptive technology, and AI planning supports to design inclusive lessons.
3. Critically evaluate the ethical and professional implications of AI in classroom design.
4. Produce a draft UDL-aligned lesson or unit plan using technology as a design enabler.

Workshop Alignment with Conference Themes

The workshop draws explicitly on core Networked Learning concepts, including learning as a relational and dialogic process, the co-construction of knowledge across networks, and the role of digital technologies in mediating learning relationships across time, space and institutional boundaries. Participants engage as part of a learning network, using shared digital tools to support sustained professional dialogue and collaborative design beyond the workshop itself.

- **Equity and Inclusion:** Demonstrates how technology enables proactive inclusive design, ensuring all learners access and engage meaningfully with curriculum content.
- **Technology and AI in Networked Learning:** Explores real applications of AI in lesson design, accessibility, and professional collaboration, while foregrounding ethics and teacher agency.
- **Professional Learning and Practice:** Participants engage in a networked learning process — co-designing, reflecting, and forming partnerships to extend their practice.
- **Ethical and Responsible Innovation:** Discusses bias, privacy, and workload implications of AI tools, encouraging critical, values-led adoption.
- **Spaces and Modalities for Learning:** Models hybrid, multimodal approaches to inclusive design, applicable across in-person and digital contexts.

Through a primary education lens, this workshop offers a practical and ethical pathway for educators to integrate UDL and AI responsibly — creating more inclusive, accessible and future-ready learning environments.

Workshop Process / Activities

Time	Activity	Purpose
0–10 min	Welcome, context framing & introductions	Introduce UDL principles and technology’s enabling role
10–25 min	Case studies from Woodland Academy Trust	Real examples of UDL + AI integration in primary classrooms
25–45 min	Interactive mapping activity	Participants identify barriers and match UDL checkpoints to technology supports
45–55 min	AI and accessibility demonstrations	Show practical use of digital tools and prompt reflection
55 - 80	Collaborative redesign challenge	Groups rework a learning activity (lesson, seminar or learning task) using UDL and technology.
80–90 min	Sharing, reflection and network formation	Consolidate learning and establish continued connections

Technical requirements: Projector, Wi-Fi, participant devices