



Executive Summary: “Designing for Enhanced Participation through Technology in Higher Education: The DEPTH Study”

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Purpose

The increasing demand for equitable higher education is necessitating a transformation in how to consider and design for equality of access and inclusion in higher education. Harnessing the power and persuasiveness of technology is considered essential for ensuring an inclusive university setting for students with disabilities¹.

This executive summary presents research-generated, evidence-based key guiding principles & actions points for developing technology-friendly inclusive university campuses in Ireland for students with disabilities and for all. The summary is part of a larger research project, The DEPTH Study, an inter-sectoral research collaboration between DCU, AHEAD, and the ALL Institute in Maynooth University, aiming to:

- Examine the experiences of students with disabilities in higher education in Ireland;
- Understand how technology supports students with disabilities accessing, progressing through and fully participating in higher education in Ireland and the role of technology in promoting inclusive higher education;
- Identify what enhances and inhibits the provision and use of technology in higher education;
- Identify key guiding principles and features of a technology-friendly inclusive university campus;

¹ Cullen, K., McAnaney, D., Dolphin, C., Delaney, S., & Stapleton, P. (2012). Research on the provision of assistive technology in Ireland and other countries to support independent living across the life cycle. Dublin: Work Research Centre.

- Make recommendations for future action to realise these principles and key features and develop technology-friendly inclusive higher education campuses.

Findings from this project will be important in developing technology-friendly inclusive higher education campuses in Ireland for students with disabilities and for all. The project has received ethical approval from the DCU Research Ethics Committee.

Methods

A systems-approach incorporating the central role of user experience (students with disabilities) and wider stakeholders informed the two-phased research design.

- Phase 1 consisted of in-depth interviews with students with disabilities (n=18) and wider stakeholders (n=28), including university support services, academics, government bodies, non-profit organisations, charities, and advocacy groups. This phase provided a rich and in-depth picture of what the system looks like and how it is experienced from the perspective of students with disabilities and the wider stakeholder's perspective.
- Phase 2 consisted of an online open discussion, dialogue forum (n=50) drawing on [world-café methodology](#), a participatory and engaging approach to promoting group dialogues and creating innovative possibilities for action; in this research to build guiding principles for a technology-friendly inclusive campus and actions to implement them. This two-week long virtual dialogue forum enabled students with disabilities and wider stakeholders to work together to identify knowledge gaps and seek solutions and success factors for building guiding principles for a technology friendly inclusive campus and actions to implement them through policy, practice and social change. Graphic recording of the group conversation was used to visually capture and bring forward the shared values and agenda for the development of technology-friendly inclusive university settings for students with disabilities and for all.

Funding

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Results & Implications for Policy and Practice

The DEPTH Study established a shared agenda for the role of technology in promoting inclusive higher education in Ireland; key guiding principles and features of a technology-friendly inclusive university campus and action points to realise them

include²: (1) Consistent and equitable access; (2) Universal design for learning and well-being; (3) Shared responsibility for diversity and inclusion; (4) Whole-community collaboration; (5) Student life-cycle management; and (6) Students as co-designers and empowered-users.

Guiding principle 1: Consistent and Equitable Access

The principle of consistent and equitable access involves commitment, practices and systems to identify and alleviate physical, digital and systemic obstructions to equity and consistency in access in higher education. Students bring diverse needs and contexts in how they access and engage in higher education. Consistent equitable access works to ensure that everyone, including students with disability, have equal, ongoing and same opportunities to learn, fully engage and develop. In an equitable higher education, all resources, systems and activities are fully accessible to and inclusive of all members of the university community, including those with disability.

Actions:

- Develop a national policy for access and technology in education and create continuous working groups to implement and regularly update the national policy.
- Promote and enable universal access to technology in higher education institutions.
- Create an institutional database that includes all the information about technologies available on campus.
- Establish reporting structures and standards for monitoring and evaluation of equality of access in higher education.
- Create a standardised campus accessibility plan for procurement of technology.
- Address and impact legal definitions and types of disability to widen access to services and resources for students with diverse disabilities.
- Build upon and examine further experiences and outcomes of online education with respect to access and inclusion in higher education.

Guiding principle 2: Universal Design for Learning and Well-Being

The principle of universal design for learning and well-being refers to creating an institution-wide higher education setting grounded in the principles of Universal Design for Learning, a mind-set model for designing inclusive education. Through UDL, higher education institutions accommodate the needs, strengths and preferences of the widest diversity of students by providing (1) multiple means of

² While the principles and action points discussed in this executive summary are distinctive enough to explore them separately, they are also interconnected and interdependent as they inform, influence and reinforce one another.

engagement or various options of engaging with information and settings; (2) multiple ways of representation or various ways of accessing content and processing information; (3) multiple means of expression or various options of demonstrating knowledge and expressing thoughts. UDL recognizes that all students, including those with disabilities, bring unique sociodemographic and academic backgrounds to their higher education and that disability lies not with the student but with settings that are disabling. In a universally designed campus setting, technology is utilized within a continuum of mainstream practice, systems, policies and support structures, i.e., technology and inclusion are no longer an optional add-on to student support and learning, but are an integral part of university life and experiences of both students and staff.

Actions:

- Develop institutional and national policies for Universal Design in instruction; services and extracurricular activities; information technology; and physical environments in higher education.
- Ensure resources (e.g., time) for staff to engage in professional development in inclusive approaches, including Universal Design for Learning (UDL).
- Address the application of UDL in different areas of the university and provide specialised support and training for staff, i.e., different activities of professional development will be required for teaching staff than activities and support for staff working within student services.
- Develop and maintain multi-year campus-wide initiatives, campaigns and symposiums for UDL.
- Recognize, celebrate and reward inclusive practice, qualifications and micro-credentials for inclusive education, such as UDL digital badge.
- Secure comfortable and safe teaching environments, especially with regard to lecture capture.
- Impact and widen the scope of accreditation and excellence in higher education to include inclusion as an accreditation standard for university rankings.
- Secure and enhance grants and funding of projects on inclusion and inclusive approaches, such as UDL.

Guiding principle 3: Shared Responsibility for Diversity and Inclusion

The principle of shared responsibility for diversity and inclusion involves understanding and enhancement of inclusion by the entire university community through staff commitments and daily practice. “Inclusion is everyone’s business” (five participants). Every staff member plays an equal role in ensuring that students with disabilities and all students are able to access and engage in college. Every member of the university community is accountable, valued and responsible to promote and ensure that their decisions and practices reflect everyone’s needs, abilities and contexts. Responsibility for the student experience and well-being lies within every

unit, department, programme and role. Inclusion is embedded into daily practice across the university's experience and spaces with accountability and leadership for inclusion being a matter of shared responsibility, not positional authority.

Actions:

- Embed "Diversity and Inclusion" into all inductions, orientations, and sessions for staff and students as an integrated part of the experience rather than as a special section or topic on its own.
- Enhance a top-down communication system for university commitment to inclusive education, including through strategic plans, policy, and buy-in from university leadership (e.g., senior management)
- Develop mechanisms for regular collaboration and consultation between senior management and other key stakeholders (e.g., students, support services, lecturers) to maintain awareness and conversation.
- Organize and evaluate campus-wide campaigns, events and sessions on disability diversity, inclusion, and inclusive technology, including assistive technology, built-in accessibility features, inclusive free-ware, and other advances of technology.
- Explore and address the attitudinal and social barriers, such as stigma and discrimination, faced by students with disabilities in addition to technological barriers.
- Enhance visibility and accountability of disability diversity liaisons in higher education institutions.

Guiding principle 4: Whole-Community Collaboration

The principle of whole-community collaboration refers to commitment, practices and structures that ensure supportive, safe and collaborative environments across the system. It includes mechanisms, practices and opportunities for all key stakeholders to come together as a community to share knowledge and develop inclusive higher education for all students, including those with disability. Lave and Wenger's concept of community of practice³ explains the ways in which learning and development occur through active participation in social communities through which individuals collaborate and reconstruct their practice and identities. In the context of higher education, communities of practice provide a path to inclusive university settings; they provide an avenue for university staff, students, and other key stakeholders, such as non-profit organisations, government agencies, and advocacy groups, to collaborate and explore good practices and solutions for inclusion and technology in higher education from multiple perspectives. Every stakeholder is a valuable, accountable, and vital part of the community with something unique to contribute.

³ Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, England: Cambridge University Press.

Actions:

- Develop and enhance opportunities and resources for sharing of knowledge and good practices with regard to inclusive provision and use of technology.
- Develop and promote interdisciplinary collaboration and cross-sectoral support networking.
- Establish a strong system-wide communication mechanism for promoting and engaging with resources and work (i.e., guidelines, workshops, conferences, seminars and other events) of diverse key stakeholders, including higher education institutions, non-profit organisations, and government agencies.
- Consult, engage and listen to persons with disabilities in the development and iteration of products and services, in line with the mantra “nothing about us without us.”
- Invite, consult, and partner with all relevant organisations and groups, i.e., those who understand the experiences, needs and barriers of all students, including those with disabilities.
- Develop and enhance international collaboration and support networks for inclusive education and technology.
- Design multi-year workshops, activities and symposiums targeting the AT professional community.

Guiding principle 5: Student Life-Cycle Management

The principle of student life-cycle management refers to supporting and promoting student inclusion during every stage of the higher education journey, including transitioning into and out of college. It speaks to integrated services, support and capacity for inclusion of people with disabilities across their life-course. A central tenet of the student life-cycle approach in higher education is to align support, settings and opportunities provided to students (a) prior to becoming a higher education student, (b) throughout the degree, and (c) in transitioning to employment. Such a model seeks to place capacity and resources for inclusion at the centre of students’ experience throughout their education journey, i.e., from primary and secondary education through higher education up into employment. Such a system promotes a continuum and all-over provision of inclusive practice.

Actions:

- Establish strong support structures and mechanisms for building technical skills and capacity for inclusion in second level education, i.e., teacher development and AT support.
- Enhance and promote pre-entry support programmes and orientations activities for students, grounded in peer-interaction, mentoring, and AT support and training.

- Develop, enhance and promote development and funding resources for employers to build understanding and capacity for inclusion of people with disabilities in workplaces.
- Develop and secure multiple resources and activities for students' career preparation and self-advocacy development.
- Establish and provide resources for student life-cycle inclusion and ownership of supports by bringing forward and realising the concept of "AT passport," a live record of one's abilities and needs across their lifespan.

Guiding principle 6: Students as Co-Designers and Empowered-Users

The principle of students as co-designers and empowered-users refers to ensuring that students' lived experiences and perspectives are embedded in, and inform, any planning and decision-making on matters that affect student learning and development in higher education. A key tenet of co-designed inclusive education is centering the voices and needs of students who were historically marginalized by design, such as students with disabilities. Perspectives of students with disabilities and all students should be an integral part of decisions and conversations about how technology in higher education is shaping their lives and futures. The principle of students as co-designers and empowered-users speaks to students' individual and collective capacities to drive change and co-build inclusion in higher education. The core assumption underpinning such practices recognizes the need to bring forward students' self-agency and strengths; students are experts of their own learning and needs.

Actions:

- Ensure representation of students from diverse backgrounds, including those with disabilities, in governance and policy development targeting access and inclusion in higher education.
- Create a centralised, holistic, whole-student support system, where students can gather all the relevant information and assistance in one place.
- Collaborate with students to provide individualised accommodations for those for whom the universal, mainstream design does not automatically provide access.
- Regularly seek and obtain feedback from students on their experiences and outcomes with regard to technology, access and inclusion in higher education.
- Develop national accreditation and minimum standards of AT training and AT professional practice to provide high quality student support for technology across higher education institutions.

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