

WP4: ETHICAL AND INCLUSIVE USE OF AI

Task 3: Inclusive AI in Irish Education and Training

Project acronym	AIRED	
Project full title	AIRED: Artificial Intelligence Reshapes Education	
Action type	KA220-VET - Cooperation partnerships in vocational education and training (KA220-VET)	
Grant agreement no.	2024-1-FR01-KA220-VET-000256094	
Deliverable name	Inclusive AI in Irish Education and Training	
Distribution level	Private	
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Reviewed by	Partners	

Revision history

Number	Date	Description
1	14/05/2025	Draft 1

Statement of Originality

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Funding Acknowledgement

The **AIRED** project has received funding from the European Union EACEA.A – Erasmus+, EU Solidarity Corps under Grant Agreement n. 2024-1-FR01-KA220-VET-000256094. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European

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National Context and Key Needs

Inclusive education in Ireland is underpinned by a combination of national legislation and international commitments that affirm the right of all children to access equitable, quality education within mainstream settings (Murphy et al., 2023). Central to the concept of inclusive education is the recognition of diversity as a strength and the need to remove barriers to participation and learning for students with additional needs. The Irish education system has gradually embraced inclusive practices, guided by evolving policies and legal instruments aimed at ensuring that children with special educational needs (SEN) can access appropriate educational opportunities alongside their peers (Murphy et al., 2023).

The legislative framework supporting inclusive education in Ireland is broad and includes several key acts. The Education Act 1998 provides a foundational requirement for schools to meet the needs of all students, while the Equal Status Acts 2000–2018 prohibit discrimination within educational institutions. The Education for Persons with Special Educational Needs (EPSEN) Act 2004 sets out a statutory basis for inclusive education and individual education planning. However, the partial commencement of the EPSEN Act has limited its full impact, creating a gap between legislative intent and educational practice. Additionally, the Disability Act 2005 reinforces the rights of individuals to access services, including in education, that support their participation and inclusion.

Recent literature highlights the evolving understanding of inclusion in education, arguing that it must now encompass digital inclusion as a fundamental component (Kearney et al., 2022). As technology becomes increasingly embedded in teaching and learning, ensuring equitable access to digital tools, content, and skills is essential to realising the broader goals of inclusive education.

Additionally, emerging technologies such as artificial intelligence (AI) offer new opportunities to support personalised learning, identify learner needs, and reduce barriers (Chalkiadakis et al., 2024). As such, AI tools used in education should be designed to ensure inclusivity, fairness, and accessibility, making them usable and beneficial for all educators and learners (AI Advisory Council, 2025; Irfan et al., 2023).

Importantly, the Irish government recognises the potential of artificial intelligence to support learners with special educational needs, particularly through tools that enhance accessibility, such as virtual assistants for individuals with limited vision or speech, and AI-powered translation to remove language barriers in education. As outlined by the Oireachtas, AI can play a valuable role in promoting inclusion. At the same time, the

government acknowledges the importance of regulating AI to prevent bias, protect rights, and ensure equitable access for all learners.

AI Tools and Solutions in Education and Training

Al-driven assistive technologies, such as adaptive learning platforms, voice recognition, and captioning tools, are increasingly used to support students with physical, cognitive, and communication challenges, promoting inclusivity in education and the workplace. These tools enhance communication accessibility through sign language recognition, captioning, and text-to-speech options (Elshazly, 2025). Harnessing Al tools to generate and broaden access to assistive technologies can facilitate re-entry into education, training, and employment for individuals with SEN and disabilities (Cox, 2025), a persistent challenge for these groups in Ireland (Disability Federation of Ireland, 2024).

The National Council for Special Education (NCSE) in Ireland provides a list of useful apps designed to support students with special educational needs. While the apps featured are not explicitly labeled as AI technologies, several of them incorporate AI-driven features to enhance accessibility and learning. For example, the Seeing AI app narrates the world around users by recognising and speaking text detected by a smartphone camera, reading barcodes, and offering additional product information such as nutrition details. Another app, Dolphin EasyReader, is aimed at readers with dyslexia, low vision, or blindness, allowing them to access talking books, EPUB, and DAISY formats, as well as having text read aloud. ChatterPix is a fun app that allows users to create playful messages and book reports, promoting interactive and engaging learning experiences. These apps, through the use of AI technologies, provide essential support for students with visual impairments, dyslexia, or other special educational needs. It is encouraging to see a body like the NCSE recommending these types of technologies, highlighting their potential to improve learning outcomes for all students.

Integrating the principles of Universal Design for Learning (UDL) has become a key priority in increasing accessibility and inclusivity within the Irish education system (Flood & Banks, 2021). McDermott and O'Donoghue (2024) argue that, when applied with UDL principles and AI regulatory ethics at the forefront, AI-assisted tools have the potential to substantially elevate current supports for learners with SEN. For instance, learners with dyslexia have claimed that ChatGPT has significantly assisted in their language processing and writing during assessments (Botchu et al., 2023). Encouraging the ethical and appropriate use of AI writing and language assistants, such as Grammarly (spelling and language check) and Elicit (summary of papers), has the potential to provide learners with information processing difficulties, executive dysfunction, and other diverse needs with the tools necessary to comfortably explore learning materials (McDermott & O'Donoghue, 2024).

Unfortunately, minority languages, such as Irish, tend to lag significantly behind in the development and implementation of supportive digital technologies, especially in Al-powered tools (Wieczorek and Costello, 2024). However, in past years, there have been significant developments in increasing technological supports for students in Irish language (Gaeltacht) schools, including for learners with SEN. Namely, Al-powered spelling and grammar checking tools in the Irish language such as GaelSpell and Gaelgram (Nic Aindriú, 2025). Additionally, Language Tool has recently added Irish in its language library, meaning students and teachers can now integrate an Irish language checker as an extension in Google Chrome. Abair.ie, in particular, has made strides in developing inclusive Irish-language tools, including Irish speech synthesis and recognition and an Al-assisted language learning platform. They also offer Geabaire, an Irish Augmentative and Alternative Communication device for learners with communication challenges in the Irish language. Despite these developments, findings from a survey conducted by Nic Aindriú (2025) suggest that a majority of teachers and staff in Gaeltacht schools are unaware of these tools, suggesting that policies, guidelines, and frameworks in Ireland should make specific reference to tools in the Irish language to increase their application in classrooms.

Best Practices and Lessons Learned

Recent projects and initiatives across Ireland have begun to explore the potential of Al in supporting the educational endeavors of learners with diverse needs. For instance, the GenAl Champions Project, funded by the National Technological University Transformation for Recovery and Resilience, brought together 36 higher education students with diverse learning needs and disabilities to explore and use various AI tools tailored to support their individual needs (Roper, 2025). Through bi-weekly meetings spanning four months, the project aimed to teach students effective methods for prompt engineering, how to create personalised study schedules using AI, encouraged them to experiment with AI tutors to support their learning and use visual AI tools to elevate the presentation of their work, and enabled them to critically reflect on their personal use of Al. The participants praised the project for allowing them to improve their organisational skills and AI literacy, claiming to feel significantly more confident in their academic and personal ventures. However, participants also reported challenges in accessing the online bi-weekly meetings, including limited access to certain platforms and administrative blocks from within their universities, suggesting that digital inequity remains a significant barrier for students with SEN and disabilities in Ireland.

The official portal for the Department of Education and Skills in Ireland, Scoilnet, has recently developed a resource for the use of AI for learners with SEN and disabilities, Exploring the Use of AI in Inclusive Education. The activities outlined in this resource are tailored to teach learners to use AI critically and mindfully, encouraging them to cultivate AI literacy and to reflect on the impact of their use of AI tools. For example, one of the suggested activities asks students to work in groups to research tools that can support students with SEN and disabilities, including text-to-speech tools, AI-powered accessibility apps, and AI-powered mental health support apps. Students are then encouraged to engage in guided discussions about the applicability of these tools, their advantages and limitations, and whether they can replace human support mechanisms.

Further examples of initiatives aimed at supporting educators in using AI to assist learners with SEN in Ireland include online events such as the AI to Support SEN and EAL in the Classroom webinar, hosted by Sligo Education Centre. This session provided teachers with practical strategies for using generative AI to create personalised learning plans, smart targets, and social stories, demonstrating how AI can be applied to foster inclusion and meet diverse learner needs in the classroom.

Sligo Education Centre also offers the <u>From Curriculum to Classroom: Al-Powered Approaches to Literacy, Numeracy & Assessment course.</u> It is a blended summer programme designed to equip educators with effective strategies, innovative resources,

and practical digital and AI tools. It focuses on creating meaningful and inclusive learning experiences for all pupils, including those with SEN. Participants will learn to integrate AI tools and apps to support SEN learners, curate digital resources for differentiated instruction, and explore the transformative potential of AI in education.

The Oide Technology in Education hub offers valuable resources to support Irish educators in integrating AI into inclusive teaching practices. A key offering is the AI for Schools online course, launched in May 2024, which provides teachers and school leaders with an understanding of AI, its applications in education, and ethical considerations. The course includes expert insights and highlights tools that can assist in creating personalised learning experiences, benefiting students with SEN. Additionally, the hub links to resources from organisations like the Adapt Centre and Webwise, offering guidance on the safe and effective use of AI in classrooms.

Technological University Dublin, in partnership with the ADAPT Centre, has launched Age-Friendly AI: A National Conversation on Artificial Intelligence, a two-year initiative funded by Taighde Éireann - Research Ireland's Discover Programme. Aimed at bridging the digital divide, the project engages older adults across Ireland to ensure their voices shape inclusive, ethical AI development. Although the Age-Friendly AI initiative primarily targets older adults, it offers valuable insights into inclusive, human-centred approaches to AI that are equally relevant for supporting learners with special educational needs. Through workshops, co-designed training, and nationwide outreach, it will reach over 60,000 older adults and directly train 1,200 participants in AI literacy. Insights from pilot workshops reveal strong interest and concerns about AI, particularly around privacy and misinformation, but also a willingness to learn. The project highlights how AI literacy and co-designed training can empower traditionally underrepresented groups, ensuring their concerns and needs shape the development of ethical and accessible AI.

Despite these recent strides, the potential of AI to support learners with SEN remains largely unexplored in Ireland. Many of the current guidelines (Quality and Qualifications Ireland, 2023) and studies (Becker, 2017; Byrne & Mooney, 2023; Dooly, 2024) within the Irish context only explore the application of AI tools in generalised educational settings, with little mention of supporting learners with SEN and disabilities. As these initiatives emerge, it is crucial that educators take precautions not to perpetuate 'techno-ableism' - the belief that supportive technologies such as AI can 'fix' or 'erase' disabilities and SEN, ignoring the socio-cultural barriers that these groups face in education (Newell, 2024).

Examples of AI use in SEN contexts have been primarily focused on learners and educators with limited exploration of how they can be used to support the whole-school level, including how administration can implement these tools to broaden inclusivity and accessibility (Roper, 2025). Additionally, current applications often draw an explicit distinction between the learner with SEN and the educator, foregoing the opportunity to use these tools to support educators who may have SEN themselves in ways that are specifically supportive of their work.

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