

Artificial Intelligence: Preparing ourselves to prepare others

An audit of member organisations' curriculum response to AI - a CIDREE project



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President's Foreword

"With the project 'Artificial Intelligence: Preparing ourselves to prepare others', CIDREE is addressing one of the most current and far-reaching developments in our modern society.

Artificial Intelligence (AI) has the potential to transform society, but it also brings challenges. It is important to consider both sides of the coin. AI can be a powerful tool to address societal issues and improve education systems. However, ethical and societal risks should not be overlooked. A well-considered strategy is needed to implement AI in a responsible way. By carefully weighing all aspects, well-informed decisions can be made about how AI can be used to support education systems and curriculum development.

The project has the ambition to address the various challenges of Artificial Intelligence and explores AI from different perspectives:

- the evolution of AI both generally and within the education system
- the approaches to the development of national laws and policies in response to Al and Al in education
- the different national curriculum developments

The project is not only ambitious in the different perspectives of AI, with the project we also gather unique data from CIDREE members from different parts of Europe. This report is the result of a process of intensive collaboration and offers much material for further collaboration and new CIDREE projects."

Ingrid Vanhoren

AHOVOKS (Belgium [Flanders])

CIDREE President 2024-2025

Introduction

Artificial Intelligence: Preparing ourselves to prepare others is a CIDREE project. CIDREE signifies the Consortium of Institutions for Development and Research in Education in Europe and is a network of educational organisations involved in curriculum development and/or educational research.

This project was established in spring 2024 because of a common desire to explore how member organisations may be responding to Artificial Intelligence (AI) from the perspective of education and is expected to take place over several years. The project is composed of three strands, each with a distinct function, focus and intended outcomes. The three organising members – **Ireland**, **Scotland** and **Luxembourg** – have taken responsibility for a single strand accordingly.

NCCA elected to lead on a strand of work to produce an audit report tracking emerging laws and policies on AI in general, and within education, across member organisations. There is a particular focus on a country's response to AI through curriculum and assessment developments. This document is informed by an initial audit conducted in the spring of 2024, and by a second audit conducted in spring of 2025.

In spring 2024, network organisations were encouraged to engage in a review of practice in the area of AI and education within their context and were invited to submit synthesised responses to an audit questionnaire. The questionnaire was piloted initially by the three lead organising members, (Ireland, Luxembourg and Scotland) and was then refined accordingly. A further five member organisations contributed to the audit: Agentschap voor Hoger Onderwijs, Volwassenenonderwijs, Kwalificaties en Studietoelagen, AHOVOKS, (Belgium [Flanders]); National Agency for Education, Skolverket, NAE (Sweden); Zavod Republike Slovenije za šolstvo, ZRSŠ (Slovenia); Netherlands Institute for Curriculum Development, SLO (The Netherlands) and Swiss Coordination Centre for Research in Education, SCCRE (Switzerland) with commitments from other organisations to engage with the audit at a later stage.

In spring 2025, network organisations were again contacted and invited to contribute. The eight initial contributors all took the opportunity to update on what had happened of relevance in their country in the intervening year. **Wales** and **Slovakia** joined as new contributors. The audit questionnaire 2025 was designed to support members to either complete or update the relevant sections from the 2024 audit, in addition to engaging with a new section on the use of Al tools and models and consideration of efforts to promote equitable access of same.

This audit intends to present information gathered by the audit questionnaire through two approaches. Data presented by participating countries was considered collectively, with trends and patterns identified. Specific examples of practice are then presented and discussed. Each section has been designed to be distinct and is presented so that the reader can engage with a particular area of interest within AI. Two appendices provide the reader with access to detailed information on each country's response to AI.

Section One: Artificial Intelligence, a global context

This section has relevance for all member organisations as it provides a synthesised overview of the evolution of Al both generally and within the education system. Links to referenced documents are embedded within, to support the reader and their engagement with this section. This section has been updated for 2025.

Section Two: National policy on Artificial Intelligence and education

This section synthesises data from participating countries on the ongoing approaches to the development of national laws and policies in response to AI and to AI in education. This section has been updated for 2025.

Section Three: Supporting engagement with AI in education: curriculum, assessment and professional learning

Here we consider national curriculum developments across the network organisations which provide opportunities for students to develop competencies that support their responsible and effective engagement with Al. National curriculum responses which are specific to Al in education are also considered. Responses to the potential use of Al in assessment are explored and some of the professional learning opportunities offered to teachers and educators are detailed. This section has been updated for 2025.

Section Four: Al tools and models and equitable access

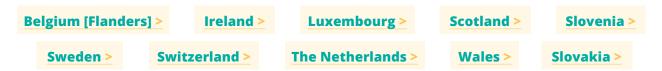
This section provides an overview of the prevalence and use of Al tools and models across member organisations and their efforts to support equitable access within their education systems.

Two supporting appendices present a summary of data provided by each country in tabular form. Please note the text within each is presented as received by participating member organisations. As as result variations in detail and approach may be evident. Both appendices have been updated for 2025.

Appendix One > (Table 1–4) presents summary information on:

- The structure of the education system in each country
- An overview of digital skills and AI in the primary and post-primary curricula in each country
- The model of funding used to support digitisation.

This summary information is presented for each of the participating countries and can be accessed directly by clicking on the emboldened name:



Appendix Two > relates to the national policies, laws and guidelines in each country specific to the use of Al (**Table 1** >) and to the use of Al in Education (**Table 2** >). This appendix identifies what is happening in each of the participating countries. Links to all relevant national documentation are provided within this appendix.

Section One:

Artificial Intelligence, a global context

This section provides an overview of Artificial Intelligence and details the evolution of global law and policy in response to both AI in general, and AI in education. This section has been updated from the first edition, 2024. Links to documents discussed are provided and the content has relevance for all member organisations.

The Organisation for Economic Co-operation and Development OECD (2023) > defines an Al system as

a machine-based system, that for explicit or implicit objectives, infers from the input it receives how to generate outputs such as predictions, content, recommendations or decisions that can influence physical or virtual environments.

Al in everyday life, and in work and education, has been a topic of interest for researchers and policymakers in recent years. Discussion on generative AI, a category of AI algorithms that generates new outputs based on the data they have been trained on, and its role and influence within education has accelerated since the launch of a generative AI tool, Chat GPT, in November 2022. Chat GPT is an example of a large language model (LLM) that enables humanlike conversations and can predict the next word in a sentence. In addition, LLMs can be combined with a standard data search to improve accuracy, such as those incorporated into search platforms, like Bing and Google. AI tools can quickly generate text, audio, images and video, and so concerns regarding plagiarism are at the forefront of discussions on the use of AI within the current education system.

Al has been described by many as a double-edged sword, providing both benefits and risks to the user and society in general. This analogy would not be considered unique and has been used to describe various other technologies, such as the internet, over the years. The role of policymakers is to take effective action to support and maximise the benefits, while minimising the risks and developing trust in the process. The initial move towards AI regulation was gradual, with many countries and institutions publishing Al strategies. While China, The Unites States and the European Union are exemplified in this section, it is important to note that many countries and organisations are working on AI regulation and legislation with varying areas of focus including those associated with deploying and tailoring AI systems to local needs and culture. China's Next Generation AI Development Plan was published in 2017, the EU Artificial Intelligence for Europe Strategy was published in 2018, followed in 2019 by the United States Executive Order on the American Al Initiative. In the United States, The National Artificial Intelligence Initiative Act was introduced in 2020 and was supported by a number of Acts, Executive Orders and Action Plans. This included the introduction of the Executive Order on the Safe, Secure and Trustworthy Development and Use of AI and the AI Bill of Rights in 2023. In 2025, some of the efforts outlined within both were revoked, with a focus instead on winning the AI race.

In 2018, the EU appointed an independent high-level expert group on AI to work on a third pillar of the strategy, to support an ethical and legal framework for AI. In 2019, the expert group published **The Ethics Guidelines for Trustworthy Artificial Intelligence (AI)** >, which are currently under revision. **The Council of Europe** > also plays a significant role in supporting the responsible use of AI.

According to the guidelines, trustworthy AI should be:

- **1. Lawful** the need to comply with all applicable laws and regulations
- **2. Ethical** the need to comply with ethical principles and values
- 3. Robust robust from a technical perspective to prevent hacks and data leaks

Ethical guidelines on AI are a description of where a country or institution stands in relation to AI, supporting and maximising the benefits, while minimising the risks. Hence, the question emerges: what is considered to be good ethical policy? Policymakers need to work towards an accepted definition of what is considered "good", and one that is accepted by the majority of their constituents. In addition, a universally accepted definition of what is ethically good in AI needs to be accepted by the majority on a global basis, in order for the policy to be adopted and successful. To determine what is meant by ethically good in relation to AI interaction, the expert group proposed to look at the framework of fundamental rights as outlined in **the EU Charter**. From an initial review of the five fundamental rights, four broad ethical principles were developed:

(1) respect for human autonomy, (2) prevent harm, (3) fairness and (4) explicability.

Moving from these broad principles, seven key requirements were developed to support trustworthy AI:

- **1. Human Agency and Oversight** what oversight mechanisms need to be put in place to respect human autonomy?
- **2. Technical Robustness and Safety** what technical robustness and safety mechanisms need to be put in place, to ensure you mitigate harm?
- **3. Privacy and Data Governance** what data protection and governance procedures are employed to ensure high-quality data generates high-quality outputs?
- **4. Transparency** three categories of transparency include traceability, explainability in relation to decision making processes and appropriate communication of the limitations of the system.
- **5. Diversity, Non-discrimination and Fairness** ensuring bias in AI systems is addressed, while also supporting universal design to support accessibility.
- **6. Societal and Environmental Well-being** awareness of the energy consumption associated with an AI system.
- **7. Accountability** considering how to make the AI system auditable to ensure you can check if something went wrong and to document negative consequences.

In July 2020, the expert group published a supporting **Assessment List For Trustworthy Artificial Intelligence (ALTAI)** >, a practical tool that translates the Ethical Guidelines into an accessible and dynamic self-assessment checklist for developers and deployers of AI systems. One of the most significant developments in the regulation of AI is the **AI Act** > which was politically agreed by the three EU institutions in December 2023 and was adopted on the 13th March 2024. The EU's AI Act is the first state legislation for AI in the world, creating binding rules on transparency, ethics and more for an AI system or entity operating in the EU market. It is considered a landmark bill that would mitigate harm in areas where using AI poses the biggest risk. This includes a requirement to notify people when they are interacting with an AI system, labelling AI generated content, and designing systems to detect same.

The cornerstone of the AI act is a classification system that determines the level of risk an AI technology could pose to the health and safety or fundamental rights of a person. It includes a framework of four tiers: unacceptable, high, limited and minimal. Al systems with limited to minimal risk include spam filters or video games and are allowed to be used with little requirements other than transparency obligations. Systems deemed to pose an unacceptable risk include government social scoring and real-time biometric identification systems in public places. These are prohibited with little exception. High risk systems are permitted, but developers and users must adhere to regulations, that require rigorous testing, proper documentation of data quality and an accountability framework that details human oversight. Al systems within the education and vocational training landscape are considered high risk within four areas. This includes AI systems intended to be used to: 1. Determine access or admission to educational and vocational training institutions; 2. Evaluate learning outcomes; 3. Assess an appropriate level of education a person will receive; and 4. Monitor and detect prohibited behaviour of students during tests. It will be interesting to see how this will shape the future of Al in these sectors, of particular interest the high-risk environment that education and vocational training finds itself in and the use of general-purpose AI systems within the field.

Al in Education

Global policy guidance which specifically relates to the use of AI in educational settings is continually evolving and is continuent on the broader landscape of policy and regulation development in AI. An overview of the contents of some key documents is provided below.

UNESCO (2021). Al and education: guidance for policy-makers >

- The potential of AI in facilitating new approaches to learning and assessment, including
 the use of intelligence tutoring systems, educational virtual and augmented reality and AI
 enabled collaborative learning is highlighted.
- The potential role that AI could play in achieving more efficient educational management and delivery is discussed.
- The report spotlights several challenges and risks, such as the ethical and legal issues
 relating to educational data and algorithms and the potential role of teachers in an Al
 dominated world are spotlighted.

The Council of Europe (2022). Artificial Intelligence and education – A critical view through the lens of human rights, democracy and the rule of law >

- Provides an overview of AI and education through the lens of the Council of Europe values of human rights, democracy and the rule of law.
- Provides a critical analysis of the academic evidence and the myths and hype.
- Ensures that AI empowers educators and learners, not over-empowers them, and that future developments and practices are truly for the common good.
- Concludes with a provisional needs analysis the aim being to stimulate further critical debate by the Council of Europe's member states and other stakeholders and to ensure that education systems respond both proactively and effectively to the numerous opportunities and challenges introduced by AI and education.

The European Commission (2022). Ethical guidelines on the use of Artificial Intelligence and data in teaching and learning for educators (currently under revision) >

- Provides the context for the guidelines within the Digital Education Action Plan, Artificial Intelligence and data use and EU policy on Artificial Intelligence.
- Gives examples of AI and data use in education with supporting ethical considerations.
- Provides guidance for educators and school leaders for planning for the effective use of Al and data in schools.
- Offers support for educators and school leaders in raising awareness and community engagement and how to develop competences for the ethical use of AI and data.

UNESCO (2023). Guidance for generative AI in education and research >

- This global guidance on Gen AI aims to support countries to plan both immediate actions and long-term policy development in education.
- A core message is that AI requires regulation, including both international and national data protection regulations.
- A human-centred approach is identified as fundamental to the successful and safe use
 of Gen AI in education, whereby both educators and students must be equipped with
 the skills to effectively manage and use Gen AI for the purposes of high-quality teaching,
 learning and assessment.
- From the perspective of a human-centred approach, Al tools should be designed to extend or augment human intellectual abilities and social skills, and not undermine them, conflict with them or usurp them.

The European Commission (2023). <u>Digital Education Hub team 'Al in Education' ></u> was founded in February 2023 to respond to Al developments and consequent implications for education. Seven information reports which directly relate to Al and its use in teaching and learning have been published thus far:

- Teachers' competences > + infographic >
- How to support teachers in using Al in teaching >
- Use scenarios and practical examples of using AI in education >
- Education about AI >
- Influence of AI on Governance in Education >
- Al and ethics, human rights, law and education data >
- Teaching with AI: assessment, feedback and personalisation >

The European Digital Education Hub has a number of **short-term working groups called squads** > who co-create and publish a range of practical outputs regularly, such as policy recommendations, guidelines, learning materials and courses on AI in education.

The Council of Europe (2024). Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law > was adopted by the Committee of Ministers in 2024. It aims to ensure that activities within the lifecycle of Artificial Intelligence systems are fully consistent with human rights, democracy and the rule of law, while being conducive to technological progress and innovation.

UNESCO (2024). Al competency framework for teachers >

- Defines the knowledge, skills and values teachers must master in the age of Al.
- Developed with the principles of protecting teachers' rights, enhancing human agency and promoting sustainability.
- Outlines 15 competencies across five dimensions: Human-centred mindset, Ethics of AI, AI foundations and applications, AI pedagogy and AI for professional learning, which are categorised into three progression levels: Acquire, Deepen and Create.
- Informs teacher training programmes and helps in designing assessment parameters.
- Provides strategies for teachers to build AI knowledge, apply ethical principles and support their professional growth.

The European Commission and the OECD (2025). Empowering Learners for the Age of Al: An Al Literacy Draft Framework for Primary and Secondary Education >

- The framework responds to the 2023 Council of Europe recommendations on digital education and skills, complements their 2022 ethical guidelines on the use of AI and data in teaching and learning for educators and DigComp 2.2: The Digital Competence Framework for Citizens. Article 4 of the EU AI Act requires both providers and deployers of AI systems to ensure that their staff, and anyone using the systems on their behalf, have an adequate level of AI literacy
- This framework outlines competences and learning scenarios to inform learning materials, standards, school-wide initiatives, and responsible AI policies for primary and secondary education settings.

Section Two: National policy on Artificial Intelligence and education

This section synthesises data from across the participating countries to identify advancements in national policies and laws occurring in response to Artificial Intelligence. It also considers developments specific to the use of AI in education. Here we provide an overview of approaches taken, but more detail pertaining to individual countries can be accessed in **Appendix Two** >.

National laws/policies/guidelines on Al

Slovenia has over 40 years of active involvement in the development of AI, and the Slovenian government have developed, and adopted, a national program for the development of AI (National Program for the Promotion of the Development and Use of AI until 2025 >) which, it suggests, provides the basis for system wide support. The national program is consistent with OECD principles on AI, and promotes AI which is trustworthy and which respects human rights and democratic values. The national Artificial Intelligence program is also consistent with the overall Development Strategy of Slovenia 2030 > as well as with the key objectives of the Digital Slovenia 2020 - Development Strategy for the Information Society until 2020 > and with some of the key objectives of the Smart Specialisation Strategy >. Work is also underway to build a large language model for the Slovenian language, which will provide the data to support the development of a safe, high-quality, openly accessible Slovenian AI. An International Research Centre on Artificial Intelligence under the auspices of UNESCO, based in Ljubljana, has been established with the aim of stimulating research, technology development and innovation in this field at the international level.

The Flemish AI action plan, **Flanders Artificial Intelligence Policy Plan | Artificial Intelligence >**, was renewed in March 2024 and is underpinned by six guiding principles for the use of AI by employees of the Flemish Government. These are identified in its AI strategy and summarised in the following statement:

Al within governments in Flanders is democratic, reliable, people-oriented and sustainable, with correct use and management of data and applied with expert knowledge.

Government developed national strategies on AI in **Ireland**, **Luxembourg** and **Scotland** all identify a desire to become a leader in the ethical use of AI. These strategies also reference the need to consider societal benefits of AI while adopting a human-centred approach to AI.

The Scottish strategy, Artificial Intelligence strategy: trustworthy, ethical and inclusive >, aims to look beyond the technology itself in order to focus more closely on Al's role in society while making a compelling case for sustained investment in Scotland's Al ecosystem. It also sets out a detailed roadmap for the key actions to be taken, confirming immediate and longer-term priorities.

2025 saw the publication of a new national AI strategy and a new National Data Strategy in **Luxembourg** as well as the establishment of an interinstitutional national steering committee on AI in education. See **Appendix Two** > for more detail.

While Ireland's first National AI Strategy was published in 2021, a refresh of the National AI Strategy > was published in November 2024 and takes account of the significant developments in AI technology and regulation since the original strategy was published. It builds on the solid foundations in place, continuing to emphasise the importance of trustworthy, person-centred AI development and use, while aiming to balance innovation with proportionate regulation and trust-building measures. Strategic actions are detailed in Appendix Two >. An AI Advisory Council was also established in 2024, with expressions of interest being invited from the public, and it is tasked with providing expert guidance, insights and recommendations in response to specific requests from government on emerging issues in Artificial Intelligence

Sweden and **Slovakia** report no national policy on AI, but an AI commission has been established in **Sweden**. There are also several national networks, involving participants from academia, the public and private sector related to AI such as **The Swedish AI Agenda** > with proposals relating to infrastructure, civil society, industry, research and education.

Al is a core theme of the Digital **Switzerland** Strategy which was developed in 2018. This was followed by the publication of a set of guidelines for the use of Al in the federal administration. It was envisaged that the guidelines would provide a general frame of reference for federal agencies and external partners entrusted with governmental tasks and that it would be adhered to in the following specific contexts:

- When developing sectoral AI strategies
- · When introducing or adapting specific, sectoral regulations
- When developing and using AI systems within the Federal Administration
- When helping to shape the international regulatory framework on AI

In February 2025 the Swiss federal government decided to refrain from a cross-sectorial regulatory framework and decided that Al linked issues should be regulated in sector-specific laws. It was decided that only Al issues that touch fundamental rights require regulation in cross-sectoral, but not Al specific, laws. The federal government also proceeded to ratify the Council of Europe framework convention, and a project to consider what regulatory changes might be necessary in Swiss law is now underway.

Strategy Response > – within the broader context of a UK national strategy, and this framework focusses on a values based approach, centred on ethical implementation, inclusivity and public transparency. **Wales** has taken a sectoral approach, including providing education specific guidance, while leveraging partnerships with specialist organisations such as the Centre for Digital Public Services and The Alan Turing Institute to build more general Al literacy. **Wales** has also adopted the Algorithmic Transparency Reporting Standard (ATRS) for government Al systems. **ATRS Guidelines** > explain that this enables public sector organisations to publish information about the algorithmic tools they are using and why they are using them, complementing the UK government's emphasis on transparency in its national approach.

The Dutch government, in identifying a vision for AI, proposes the necessity for appropriate legislation and regulation. This is detailed as one of six action points which it deems necessary for development of responsible generative AI in **The Netherlands**, which, it is suggested, will allow for appropriate control to be maintained over the impact of the technology.

National laws/policies/guidelines on AI in education

All of the participating countries recognise in their strategies and programs the necessity for education about AI and in the use of AI, and many have already moved to include the digital competencies necessary for the use of AI into their school curricula. These curriculum responses will be discussed in more detail in section three.

Where national curricula exist, national strategies apply, as is the case in Ireland, with one complete strand of the refreshed national strategy for AI focused on education. This strand is primarily focused on the need to develop a workforce capable of interacting with AI technology and considers the role of Higher Education Authorities and further learning providers in the development of this workforce. It also identifies some of the potential limitations and risk in the use of AI to augment teaching and learning at all levels of the education system and recognises the necessity of integrating AI and AI literacy into all education curricula. As with strategies in other countries, the need to develop general digital literacy skills and transversal skills such as critical thinking and problem solving to support engagement with AI is also recognised. The refreshed AI strategy also prioritises the development of guidelines for schools and teachers >, which were published in October 2025. In addition to this revised strategy. The Al Advisory Council published an advice paper on Al and Education > in February 2025, and issues of data security and the principles of equity, accessibility and inclusion are prominent in this paper. The Council also recommends that the Government create and publish guidelines on the use of Al across different the levels of education which harmonise with each other, and which are 'live documents' that can be readily updated to keep pace with the rapid developments in Al. **Guidance on Artifical** Intelligence in Schools > was published in October 2025. This guidance document provides a background and context on AI in teaching and learning and information on the opportunities and risks associated with its use. It also highlights relevant factors and suitable resources to inform schools and support teachers in planning for the possible use of AI in teaching and learning and supports good decision making around AI tools and practice. The guidance is intended to enable Al, where it is deployed, to be used in a safe, ethical and appropriate manner.

The **Scottish AI Strategy** > commits to openness, transparency and collaboration. Some of these values are evidenced in the establishment of 'The Scottish AI playbook' which is described as 'an open and practical guide to how we do AI in Scotland'. It is a repository of relevant information for all engaging with the development or use of AI. Embodying the principle of inclusion, contributions are invited from across sectors, including education. Information about the first version can be accessed at **scottishaiplaybook.com** >.

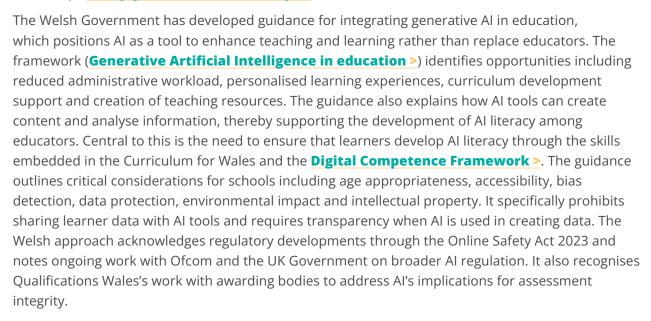


Guidance for schools and teachers on AI is currently being developed.

In **Luxembourg** a National Media Competency Framework – the 'Medienkompass >' – offers a comprehensive guide aimed at integrating media competence, including data and Al literacy, into educational settings. It defines Al and data literacy, and outlines specific competencies across different educational levels, offering practical examples and suggesting ways to implement these skills in the classroom. Following the establishment of an interinstitutional national steering committee on Al in education in April 2025, the publication of an Al in education strategy is anticipated in Autumn 2025.

While many of the guidelines developed in participating countries refer to an ethical use of AI, the creation of a **vision paper** > in **Flanders**, entitled 'Responsible AI in Flemish education – a collaborative process from development to use', was identified as the first step in the process of creating a Flemish policy on responsible AI in education.

The vision paper provides a framework for responsible development of, as well as use of, AI in educational settings and identifies application developers, school boards, teachers and students as having responsibility. Research on the usage and prevalence of AI in Flemish education institutions has commenced and more recent developments to support the use of AI in schools include sharing information with schools through a **dedicated website** >. A learning network on responsible AI in education for key stakeholders on the macro level in education is currently being organised, and an analysis of relevant legislation for AI in education has begun. January 2025 saw EduboxAI being updated. EduboxAI is a toolbox to help young people understand the underlying systems of AI, while also preparing them to work with AI, and is an initiative of the public broadcaster, VRT. School Leadership teams are also supported in the development of school policy in AI through funding of bootcamps **Schrijf je in voor de Bootcamps** >.



In **Switzerland**, where lower tertiary education, except Vocation Education and Training (VET), is organised by 26 cantonal administrations, each canton is responsible for developing its own guidelines such as those issued by the canton of Zurich which can be accessed in English and German at this **link**. Many of the guidelines published by cantonal administrations include sections on assessment. For further examples see **Appendix Two**. A **guideline based on best practice experiences** is also available from an innovation sandbox run by the canton of Zurich. Some municipalities, which run schools in compulsory education, also publish their own guidelines for Al in education (e.g., **Gemeinde Steinhausen**), and the umbrella organisation for teachers in **Switzerland** has also published a a **position paper on Al in education**. The federal state and the Swiss cantons also run a number of specialised agencies in education that have published material on Al in education and many universities have published guidelines for Al in tertiary education.

In **Sweden**, because of the decentralisation of the education system, national law or policy on Al in education does not exist, but the National Agency for Education encourages schools to have a common approach towards Al, taking local conditions into consideration. The National Agency for Education also encourages schools to view Al as a part of the digital competence described in existing curricula.

A major project funded by **Slovenia** and the European Union, **Generative Artificial Intelligence in Education** >, is exploring the interplay of three areas: 1. Exploring the field of generative AI; 2. Testing pedagogical approaches in relation to generative AI; 3. Testing appropriate content and applications with AI that can support both the teacher and the learner in the teaching and learning process. In the first work package, existing guidelines in the Slovenian, European and global environment were researched and studied. Legislative, pedagogical, technical-technological, ethical and safety aspects of the use of AI in education were examined and possibilities for the use of generative Artificial Intelligence as an assistive technology for vulnerable user groups were explored. In the second work package, the needs of educators, students and managers were analysed, and proposals for guidelines on the introduction of generative AI in the project activities were developed. Currently, guidelines for the use of generative AI in education in **Slovenia** are being prepared. The next work packages will provide exemplars of the effective use of AI in teaching and learning and will allow for ongoing evaluation of participants and the training methods used. This major project is due for completion in June 2026.

The National Digital Skills Strategy and Action plan for 2023–2026 > in Slovakia outlines objectives to enhance digital skills among young people and educators, and emphasises the development of digital competencies at all educational levels, aiming to prepare students for future labour market needs. A national project, Digital Transformation of School Education (DITEdu), was also established with Al and digital competencies as one of its core priorities. To speed up the uptake of Al in schools The Ministry of Education has chosen the successful integration of Al into teaching as one of its core priorities for the next four years.

Responses to developments in AI in education continue to evolve at a national level where education systems are regulated nationally, and where education systems are decentralised, there is an awareness of the need for a coordinated response to emerging technologies. Additional details on the process adopted in each country through national policy on AI in education can be found in **Appendix Two, Table 2**>, where further links to national documents are provided by contributors.

In many countries there has been considerable developments in curricula which aim to support the development of skills and competencies as part of the education systems which will further enhance engagement with AI. Other changes support the development of AI specific knowledge, understanding and skills. Curriculum developments and other responses which support engagement with Artificial Intelligence are discussed in the next section.

Section Three:

Supporting engagement with AI in education: curriculum, assessment and professional learning

Due to the complex nature of Artificial Intelligence, and its potential to support teaching, learning and assessment, responses are multi-faceted and include curriculum development and evolution, as well as the necessity for professional development of educators. Member organisations have responded to the developments in AI with both broad and specific approaches to curriculum development. Broad responses refer to curriculum developments that support students to acquire skills which will enable them to engage more effectively with AI. These include moves to support the development of digital and transversal skills. Specific responses refer to AI specific curriculum developments and may also include approaches to assessment which reference AI. Professional learning opportunities for educators which support effective implementation of evolved curricula developed in response to AI will also be discussed.

Development of digital skills

Through the development of digital literacy skills students become critical users of digital tools and media, which might support them as they engage with AI. While in some countries this has involved the introduction of new subjects, in many countries there is a curricular emphasis on the development of digital knowledge and skills through learning across all subjects. Some countries have chosen different approaches at different stages of the education system.

The **Digital Competence Framework** >, (DCF) became a statutory component of the Curriculum for **Wales** in 2022. The DCF outlines essential skills, knowledge and attitudes to support the confident, creative and critical use of technologies, including AI, and encompasses areas such as digital citizenship, data handling and computational thinking. The Data and Computational Thinking strand is particularly pertinent to AI as it emphasises understanding and applying data concepts, including data collection, analysis and interpretation, alongside developing algorithms and problem-solving skills foundational to AI.

Ireland is implementing a <u>Digital Strategy for Schools to 2027</u> which is designed to support the school system to ensure that all learners will have an opportunity to gain the knowledge and skills they need to successfully navigate an ever-evolving digital word. The Digital Strategy for Schools to 2027 is supported by the Digital Learning Framework for <u>Primary and Post-Primary schools</u>, which has been developed to assist schools in effectively embedding digital technologies into teaching and learning. <u>Digital Learning Planning</u> > provides a range of

resources to support schools and teachers. The Digital Strategy for Schools to 2027 complements and supports Ireland's Literacy, Numeracy and Digital Literacy Strategy 2024–2033: Every Learner from Birth to Young Adulthood >, which was published in 2024.



Some resources which support schools and teachers in Ireland

At primary level, the **Primary Curriculum Framework** > (NCCA, 2023) underpins high-quality learning, teaching, and assessment for all children attending primary and special schools in **Ireland**. 'Being a digital learner' is one of the key competencies that is embedded across all curriculum areas. In the area of **Wellbeing** >, for example, children develop digital safety skills for appropriate and responsible use of digital technologies. They are also supported to learn how to identify credible sources of information and develop an awareness of the persuasive role of digital media.

The **Primary Language Curriculum** > also recognises the importance of developing digital literacy. In the curriculum, 'text' refers to all products of language use including electronic and digital. Children have opportunities to locate, select and critically analyse relevant information in multiple modes including text, visual and audio. Through the Learning Outcomes (which describe expected learning for learners at the end of a two-year stage), children develop knowledge, skills and dispositions that equip them with the ability to be digitally literate.

In the curricular area of **Science, Technology and Engineering Education** >, children develop an awareness of how different technologies operate and explore the advantages and potential disadvantages of common digital devices. They develop an understanding of algorithms and have opportunities to create and refine algorithms using both digital and non-digital contexts. As they move towards the senior end of primary school, they have opportunities to critically reflect on the role that data plays in their lives, helping to prepare them for the latest technological advancements.

In **Luxembourg** the National Digital Competence Framework has been reworked into the 'Medienkompass >' (Media Compass) to take account of developments in Al and data management. It details five competence areas: information and data, communication and collaboration, creating content, data protection and security, and digital world. Each have a number of associated competencies which are developed across and through engagement in all subjects.

Since 2020 coding and computational thinking is part of the primary curriculum. Pupils learn to understand how digital devices operate and practice setting up instructions for digital device such as algorithms. Coding and computational thinking are integrated into the mathematics courses in upper primary education and are taught transversally in the lower grades. Digital sciences has been introduced as a subject area in lower secondary in addition to an emphasis on introducing and using digital media in other subjects.

In **The Netherlands**, digital literacy will be included in the national targets for primary and secondary education. The new targets should provide concrete guidelines for schools and teachers on how to integrate digital literacy into education.

A National Digital Skills Strategy and Action plan for 2023–2026 > in Slovakia outlines objectives to enhance digital skills among young people and educators and emphasises the development of digital competencies at all educational levels, aiming to prepare students for future labour market needs. Digital literacy and its components are based on the European Framework of Digital Competences for Citizens (DigComp 2.2 >), which offers specific guidelines for adjusting competencies of pupils to the primary school level. In the National Education Program (2023) digital literacy is defined as a separate transversal competence with three frameworks: attitudinal; content; and procedural. Informatics, part of the secondary school curricula, has a thematic unit on Digital Technologies in Society.

Belgium [Flanders] is investing heavily in digital education, supporting schools and teachers through the establishment of the **Digisprong Knowledge Center** > which offers workshops, guidelines and articles around 11 IT-linked themes. In **Belgium [Flanders]**, education falls under the jurisdiction of the three language communities: Dutch, French and German speaking. Curricula in schools in Flanders must include ICT as a cross curricular theme. New goals for primary education are currently being developed, and ICT will be a subject area as part of these new developments. Digital competence and media literacy are competencies which feature throughout all the stages of post-primary, with students progressing from using digital media to analysing the impact of digital systems on society.

Fostering digital competence is also an integral part of the Swedish education system. Digital competence for pupils in this context is described as:

- Being able to use and understand digital tools and media
- Having a critical and responsible approach
- Understanding the societal impact of digital transformation
- Being able to solve problems and turn ideas into action

As **Switzerland** is a federal state, nation-wide initiatives for the development of digital competencies for compulsory or upper-secondary education, are rare. The federal state runs an action plan that provides an overview of the measures being taken to implement the digital strategy. The Swiss Conference of Cantonal Ministers of Education also provides an overview on their projects with respect to digitalisation. The Inter-cantonal agreement on the harmonisation of compulsory education (HarmoS Agreement) promotes a consistent curriculum across the three linguistic regions of **Switzerland**. In all three regions (German, French and Italian) the curricula reference digital technologies. In the French region a new curriculum framework came into force in June 2024 in the General Education Track and references digital competencies including managing data and information; understanding and implementing processes for automation; analysing complex issues using models; reflecting on digital identity; communication and collaboration; and understanding the information society.

As part of a curriculum reform project in **Slovenia**, digital competencies are to be included in the mandatory curriculum of the education system. This curriculum reform project has seen the development of a web application that enables the creation and writing of revised curricula in accordance with the requirements of the Guidelines for Curriculum Reform in Primary and Secondary Schools, and Vocational Education. Interestingly, the AI wizard assists authors with tasks such as writing objectives, and once the application is publicly available, it is envisaged that the AI wizard will also provide support to teachers in lesson preparation. A powerful search engine will enable targeted lesson preparation tailored to the needs of the students.

The AI wizard represents an advanced AI solution for optimising educational processes and it is suggested that the experience gained from its development will be valuable for further research and use of generating AI (genAI) in education.

In **Scotland**, digital knowledge and skills are applied across all subjects so that students develop digital competencies in multiple contexts. Support is provided to teachers with curriculum planning through the **DigiLearn website** >. Teachers can also find support to develop their own digital skills here too. As part of a new **Curriculum Improvement Cycle** > work is ongoing on core competency areas, including digital literacy. In relation to AI the issues of ethics, citizenship and participation form part of these conversations.

Where countries have moved to include digital skills within the curricula, there is a necessity to consider teacher readiness and ability to use such pedagogies and to teach such skills. These opportunities are discussed further in the subsection on professional learning.

Development of transversal skills

Transversal skills, such as problem solving and critical thinking, have relevance in supporting students to engage with Al.

In 2018, transversal skills were the subject of research by the state secretariat on education in **Switzerland**. The research indicated that transversal competencies will increasingly be required, in view of labour market-relevant megatrends. It was suggested that these competencies should be anchored as clearly formulated educational objectives and consequently the new **General Education Framework** has a strong focus on transversal skills. The framework suggests that Digitality makes transversal skills even more important References are made to interdisciplinary-methodological competencies such as thinking skills, self and personality related competencies including curiosity and self-reflection and social communicative competencies such as the ability to work independently and the ability to take responsibility. More detail on this Framework is available in **Appendix One** >.

Transversal competencies and skills relevant to AI are already present in **Sweden**'s curriculum. Among some of them are the ethical perspectives, sustainability, critical thinking and creativity. Source criticism and source awareness are also mentioned in the curriculum and several subject syllabi. A critical approach to, and responsible use of, digital tools is promoted, and pupils are encouraged to think about the interaction between technology and society. The National Curriculum in **Slovakia** also emphasises a shift towards fostering a critical approach to how technology is used in society, and supports responsible participation in the digital world.

Slovenian educators, through their involvement in the **ATS STEM project** > (Assessment of Transversal Skills in STEM), have been actively engaged in fostering transversal competencies relevant to AI in education. More information is provided in the **country's final pilot report** >.

In **Belgium [Flanders]**, the core curriculum consists of minimum goals set by the Flemish government, which are linked to 16 competencies. These were established after societal debate and relate to European policy on lifelong learning. Education providers have the freedom to add additional transversal skills which align with the schools' pedagogical approaches, but the core curriculum identifies a number of **Learning objectives for secondary education Flanders** > which include transversal skills.

A revision of the national core objectives and attainment targets in **The Netherlands** gave rise to a new categorisation of transversal skills and domain-general reasoning skills. There is reference to basic skills (literacy, numeracy, digital literacy and citizenship), thinking skills (analytical, critical and creative thinking), learning skills (social interaction, cooperation, learning skills), and compound skills (research, design, orientation on own professional life). Under the revision, digital literacy is positioned both as a basic skill and in connection with the other skills.

In Ireland, at post-primary level, the Framework for Junior Cycle supports the incremental development of digital skills through the eight **key skills** >, which includes managing information and thinking, where students search for and evaluate content in different digital formats online. Redevelopment of senior cycle is in progress in Ireland, and a set of seven key competencies > underpin the redevelopment. Literacies (including digital literacy) weave across all seven competencies. It is suggested that students' literacies are well developed when they can meaningfully and effectively read, watch, write, speak, listen, interpret and mediate meaning in a range of contexts and can make good use of various tools, including technologies, to support their learning. Some key competencies are more relevant to AI in education, such as the key competency of thinking and solving problems, which encourages students to respond critically to questions and tasks to solve problems, focusing on acting with integrity and being transparent about sources. Students nurture their creativity when they are curious, open-minded and are comfortable with ambiguity and uncertainty, while finding ways to move forward, as described in the key competency of creativity and within the key competency of communicating, students analyse and interpret a range of texts, developing critical understanding and recognising and trying to counteract misinformation. Students are also encouraged to act ethically within the key competency of participating in society. As students engage with a variety of subjects and modules across senior cycle, they develop and embed key competencies that can be applied within a broad range of contexts including when they engage with Al.

An optional short course in **Digital Media Literacy** is offered in Junior Cycle, which aims to extend and refine students' ability to use digital technology, communication tools and the internet creatively and safely. This short course includes four strands: (1) my digital world; (2) following my interests online; (3) checking the facts and (4) publishing myself. It has been recently reviewed.

At primary level, the **Primary Curriculum Framework** > supports the development of knowledge, skills and dispositions which enable children to adapt to a wide range of contexts in today's world. These capabilities are presented as seven inextricably linked key competencies which are embedded across all curriculum areas and stages of primary school. Although each key competency could relate to Al in education in some way, the competency of 'being a digital learner' is particularly significant. Through this competency, it is envisaged that children can become responsible and respectful users and creators in technology, thus enabling them to critically engage and contribute to a digitally connected and interdependent world.

As an output of aforementioned Curriculum Improvement Cycle underway In **Scotland**, a 'big ideas' model (**Terminology – Curriculum Improvement Cycle >**) is being developed which will identify the skills embedded within subject areas, while The Curriculum for **Wales** outlines four purposes of education, one of which is to develop learners as enterprising and creative contributors, who will have the opportunity to engage in critical thinking, problem-solving and innovation as they engage with the curriculum.

A considerable evolution of curricula has occurred across member organisations, promoting the development of skills, digital and transversal, many of which are necessary for effective engagement with Al. We will now explore curriculum developments that are occurring which are specific to developments in Artificial Intelligence.

Curriculum developments specific to Artificial Intelligence

In response to advances in AI, **Luxembourg** has revised its National Digital Competency Framework. The '**Medienkompass** >' is a guide to integrating media competence, including data and AI literacy, into educational settings. It defines AI and data literacy, and emphasises the need for critical evaluation, effective communication and responsible use of AI technologies. In addition, a new course at lower secondary, **Digital Sciences** >, includes AI as one of its six thematic axes. While this course was piloted in 18 schools in 2021, national implementation has now commenced. As students move from 7th – 9th grade they move from defining AI, and learning how it works to learning about processing, while also engaging in more critical thinking as they move to the final aspect of study – *AI: Friend or Enemy?* This is part of the 'Innovation Initiatives, Digital Luxembourg' which is a multidisciplinary collaborative government initiative which has as its goal a positive transformation to digitisation.

In **Belgium [Flanders]**, the previously mentioned **Digisprong Knowledge Center >** hosts articles on 11 IT linked themes and includes **Artificial Intelligence >** as one of these.

A sample of articles available from the Digisprong Knowledge centre (**Belgium [Flanders]**)



This is one of a series of articles being developed on each chapter of **European Commission's ethical guidelines for the use of Al in education** >.

What can Al do? What is the impact on your education? How can you ensure that Al strengthens rather than impoverishes your lessons?

We show you how to use a few guiding questions to determine whether the AI programmes meet the 7 key conditions.

In **Ireland**, **Computer Science** > is now offered as an optional subject in senior cycle having been first introduced in 2018 with a pilot phase. As part of this students learn about AI, machine learning and when AI algorithms might be used in certain contexts. They become skilled in using and developing algorithms while also exploring the social and ethical considerations of computing technologies. A draft **specification for the redeveloped subject** > was recently published for public consultation. **Optional modules in AI** > are available to students of Transition Year through different education institutions such as Dublin City University.

Commencing in the 2024-2025 school year AI as a subject is on offer in **Sweden** at the Upper Secondary level. An AI subject for Upper Secondary school was already in development before the most recent wave of AI interest. However, it has now commenced one year earlier than initially planned to meet demands from stakeholders. The subject contains two perspectives, a technical perspective and a societal perspective. It is also adaptable to the local programme of the pupils.

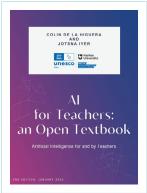
Al learning has three focal areas in **Scotland**, namely learning about Al, learning with Al and creating Al. Learning with Al impacts how curriculum is enacted. Two Learning Authorities, Midlotian and Scottish Borders, are already utilising language processing tools to develop reading and writing skills, with the outcomes soon to be evaluated. This is one of the many action research projects being undertaken in **Scotland** involving the use of Al tools.

Part of the national response to AI in **Slovenia** has seen teachers, educators and universities participate in a number of research projects to support the use of AI in education and includes the **AI4T project - AI for teachers >**. **Ireland** and **Luxembourg** are also partners in this project. This project has, as one of its outputs, an open textbook for teachers. This provides for self-directed learning for teachers in the area of AI and is written for teachers by teachers. An overview of the professional learning opportunities for teachers across the responding countries is provided in a separate subsection.

The Curriculum for **Wales** is designed to be flexible, future-focused and responsive to emerging technologies, including AI, and also gives schools the freedom to design and plan their own curriculum based on the needs and interests of their learners. This means schools can choose to include AI related learning as part of their digital competence, computer science or broader discussions about ethical and societal implications of technology.

In **Slovakia** work is ongoing to align the existing curriculum for primary and secondary schools with the goal of AI literacy at two levels: 1. The implementation of AI content, objectives and outcomes in the subject informatics and 2. the introduction of AI literacy as part of digital literacy, the description of which is undergoing revision in order to be more responsive to AI in education. This revision is due for completion in Autumn 2025.

A considerable response to AI within curricula development has assisted all members of the various education systems to continue to engage with AI, while also recognising the need for further collaboration so that its use empowers learners and educators. This audit is the first step in a larger project that supports the CIDREE network in their continued response to AI within education. An area of considerable interest is the use of AI to support assessment practices. Responses to AI and assessment across our contributing members will now be discussed.



>

Assessment and Artificial Intelligence

Developments in AI and the impact on assessment has influenced some Higher Education Institutions in participating countries to issue guidelines on assessment practices. These include advice on being open and transparent with students about when genAI may or may not be used as seen in these **guidelines** > issued by the University of Leuven in **Belgium** for example.

In **Ireland**, the State Examination Commission (SEC) is responsible for the development, assessment, accreditation and certification of the post-primary examinations, the Junior Certificate and Leaving Certificate. Since the 2023 examinations, the State Examinations Commission (SEC) has included an instruction in relation to material generated by AI software in its documentation and there is a requirement for any material generated by AI software to be appropriately referenced. The arrangements for the acceptance and authentication of coursework for the state examinations are outlined in annual circulars and in the individual subject specific circulars which issue annually from the SEC.

A Senior Cycle Redevelopment programme is currently underway. Each subject specification is accompanied by guidelines for an Additional Assessment Component, detailing coursework to take place in school, overseen by the class teacher but externally assessed by the SEC. These guidelines include information about referencing material generated by AI software in the development of the coursework. Further subject specific guidance on the permitted use of generative AI in Additional Assessment Components will be provided in future SEC documents. The SEC is currently in the process of commissioning research into the use of generative AI in the context of teacher based and external central assessment in the Senior Cycle of education in the Irish State, having regard to the Senior Cycle Redevelopment programme. This research will consider both the unique opportunities and challenges associated with generative AI in the context of assessment for certification. In particular, it will explore how the use of generative AI, and possible approaches to allowing or restricting it, impact on assessment integrity. It will also examine how generative AI might support improved assessment processes.

Since early spring 2023, the National Agency for Education in **Sweden** recommends against having home assignments used for grading if it cannot be ensured that pupils have completed the assignment themselves. Assessment is now, to a larger extent, carried out continuously in class, orally and in writing, using pen and paper or on digital devices with the appropriate restrictions in place, such as limited access to internet. However, recognising some of the learning benefits provided for by AI, the emphasis in some assessments in **Sweden** have been changed to respond to recent developments. For example, for the oral part in the national test in Swedish at Upper Secondary level, a speech can be prepared at home. Knowing that AI can be used to some extent in these preparations, more emphasis has been put on assessment of the delivery of the speech. Teachers may also ask questions to follow up on the content of the speech. In this way the use of AI is to contribute to learning but the focus of the assessment has changed.

Many contributing countries, including **The Netherlands**, suggest that there will be changes to assessment approaches in response to developments in AI. The Slovenian Ministry for Education has published a public tender for the development of a research project to consider how genAI might be integrated into educational processes and it is to be assumed that the role and/or impact of genAI in assessment processes may form part of this.

In **Scotland**, the potential of Al in changing assessment practice is also being explored. An Al tool which can be used to automate the grading process, saving time for educators and supporting teacher judgement as part of moderation, is to be trialed in seven establishments. The Norwegian developed 'Learnlab' tool can also provide detailed feedback to students, helping them understand their mistakes and improve. A small group of teachers in Dundee are working to explore Al tools to enhance teaching, learning and assessment by exploring tools which assist with the creation of content for lesson plans, presentations and quizzes. The use of 'My GlobalBridge' in Dundee will be monitored. This platform allows evidencing of learning for formative assessment purposes and suggests content of interest because of what is shared on the platform. In **Wales** a focus on formative assessment practices appears to align with Al's capability to provide real-time data and feedback on student progress, as well as allowing student progress over time to be tracked longitudinally to identify patterns and areas for development. The necessity of addressing bias in Al driven assessments and the necessity to accommodate diverse needs is highlighted and, in some countries, such as **The Netherlands** and **Ireland**, there is some concern about the capacity of Al tools to store student data.

While the initial response to developments within AI was one of caution, many countries are now looking to research how AI might enhance teaching, learning and assessment. A working group on AI and data in education at the Swedish National Agency for Education consisting of members across departments and units was convened in spring 2023. The working group is actively monitoring developments in the field of AI and data in education, coordinating the work at the agency and supporting schools in their exploration of AI. The Swedish National Agency for Education is also actively investigating and assessing the long-term effects (5–10 years) that AI developments may have on education.

Supporting engagement with AI in education has resulted in the evolution of curriculum, to support appropriate skill development and to respond more specifically to the rapid development of this technology. Teachers, both in-service and pre-service also need support to develop their own AI literacy, while simultaneously taking responsibility for implementation of these new curricula. A variety of approaches to providing professional learning has been taken and these will now be discussed.

Professional learning opportunities in Artificial Intelligence

The contributing members have been very active in providing opportunities for professional learning on Al in education to teachers and educators, but also to the general public e.g. in the form of awareness raising webinars available in **Sweden** and online learning for parents in **Slovenia**. Some of the ideas for professional learning are detailed in the infographic and some patterns and trends are then discussed.

Professional Learning Opportunities

Туре	Name and/or link	Description	Country	
Dedicated digital platform	Digisprong knowledge centre >	To support school leaders, teachers and ICT co-ordinators with education technology	Belgium [Flanders]	etadibe.
	https://hwb.gov.wales >	Welsh government digital education support	Wales	1
	DiTEdu-Digital Transformation of Education and Schools >	Providing digital training for teachers and school leaders	Slovakia	400
	digilearnscot >	Education Scotland digital education support site	Scotland	1/3
Digital sharing spaces	Klascement >	Teachers share teaching materials and ideas	Belgium [Flanders]	diale.
	Scottish Al Playbook >	Sharing space for collaboration for all involved with Al	Scotland	
Self directed learning spaces	Teacher training - Al4T project >	Massive Open Online Courses (MOOC) – product of an Erasmus+project	Luxembourg Slovenia Ireland	\$ 30°
	https://skupnost.sio.si/ course/view.php?id=11138 >	Moodle course	Slovenia	36"
	Al4T project resources >	A collection of resources on Al for teachers	Luxembourg Slovenia Ireland	3
Online lesson resources	Dwengo >	Supporting teachers in the use of robotics and Al	International	53
CPD offerings	Webinars e.g. Al in Education Innovations, Opportunities and Ethical Perspectives >		Ireland	3
	Webinars e.g. Impact connecting >		Belgium [Flanders]	46
Other learning ideas	Al in schools week > Research projects e.g. PUMICE > Al4T >	A series of events to highlight Al use	Scotland	

Workshops, both digital and in-person, are widely provided. In Ireland, OIDE is the national support service for teachers and school leaders, and OIDE Technology in Education (OIDE TiE) offers a variety of opportunities including webinars such as Al in Education Innovations, Opportunities and Ethical Perspectives >. In Slovakia, by way of the establishment of the DiTEdu-Digital Transformation of Education and schools project, schools' digital coordinators, leaders and teachers have engaged in full-day programmes focused on the use of digital tools and innovative learning methodologies, while also having opportunities to engage with communities of practice and other networks supporting professional learning. In Scotland, inperson and online workshops are offered throughout the year as well as during the Scottish Al in Schools week >. The first week-long event took place in March 2024, and a second week ran very successfully in 2025. On offer were curriculum related sessions, as well as opportunities for sharing professional learning and sessions on genAl. Resources/talks/workshops > etc. are all made available online after the event to allow educators to access them in their own time and also providing an opportunity for those who may have missed events to catch up. 2025 also saw The National Education Institute in Slovenia host the 5th Digital Education Week remotely with new technologies, including AI, a focus. In **Belgium[Flanders] Impact connecting** > organises an ICT practical day or conference event. This is a major education event that has been organised more than 35 times since 2002. Since 2019, it has been attended annually by more than 1000 attendees from primary, secondary, adult and higher education.

Scotland and **Belgium [Flanders]** have developed a dedicated online hub or space to host general information, provide access to research articles, and to provide access to webinars and online courses where teachers and educators can engage in self-directed learning about all aspects of digitisation, including AI. A central online space has also been established by the **Welsh** Government which provides access to professional learning, as well as to a wide range of centrally funded bilingual tools and resources. In **The Netherlands**, the website of the centre for curriculum development (SLO) has a section dedicated to digital literacy and provides information and articles based on research to support teachers and schools and in **Ireland** OIDE TIE hosts information for schools on their dedicated AI hub.

Providing opportunities for teachers to share and collaborate also supports professional learning, **Klascement** > (**Belgium [Flanders]**) is a digital space for teachers where they can share and access classroom resources and the **Scottish Al playbook** > provides opportunity for all involved in Al (not just educators) to share and collaborate. **Luxembourg** has established Al specific support groups for teachers and Digital Teach Meets have taken place in **Scotland**. Here also professional learning has been supported through schools sharing their stories with other practitioners so that schools learn from each other. This happens through online and inperson events.

Academic research also supports teacher learning and is being facilitated through Moodle courses in **Slovenia**, and via MOOC as part of the **Al4T project** > in which **Luxembourg**, **Slovenia** and **Ireland** partner. The Data Literacy in Upper Primary (**DALI4US** >) Erasmus+ project is also supporting primary teachers. It aims to equip them with the confidence, knowledge, skills and attitudes needed to teach data literacy effectively. By providing them with appropriate technological and pedagogical resources, as well as professional training, it aims to raise teachers' awareness, enhance their teaching skills and provide them with a digital ecosystem that is perfectly tailored to their requirements and needs. In **Ireland**, research and insights from Coimisiún na Meán (**Ireland**'s media regulator) contribute to the Department of Education and Youth's direction on Al, and in **Slovenia** a strong research agenda saw conferences on Al in education organised by the Ministry of Education sharing research as well as experiences of schools and staff.

The introduction of new courses in AI in upper secondary schooling in **Sweden** has led to universities offering further qualification courses for teachers. In **Switzerland**, also at tertiary level, over 30 courses are offered related to AI. Initial teacher education at university is also undergoing reform in **Luxembourg** to include consideration of AI.

FraAldee > was a professional learning opportunity in Flanders which took place across 22 Fridays, offering '66 snacks about Education with Al' at lunchtime. Some examples of topics of webinars offered were: 'Al teaching-tools', 'Al policy', 'Al and ethics', 'Al and didactics', 'Learning to prompt generative Al'. Further initiatives in Flanders include the provision of bootcamps for school leaders >, specific to Al and Extended Reality (XR), which support the leaders in development of school policy on the use of new technologies. In addition The Kenniscentrum Digisprong > plays a key role in supporting professional development in Al literacy through hands-on training but also by the provision of teaching materials and inspirational content. Such practical supports, including lesson ideas and the provision of curriculum planning tools, support learning for teachers and school leaders. Dwengo > is a not-for-profit organisation which started in Belgium but now supports teachers internationally, with the provision of online manuals and supports, as well as opportunities to attend in-person workshops specifically in the areas of robotics and Al.

Significant curriculum development is ongoing and the necessity for professional learning for educators has been recognised. The need for further collaboration is acknowledged so that AI is used to empower learners and educators. Anecdotal evidence from contributors suggests that AI tools are already widely in use in education settings, by educators and learners. The next section explores this evidence in more detail while considering equity of access to such tools.

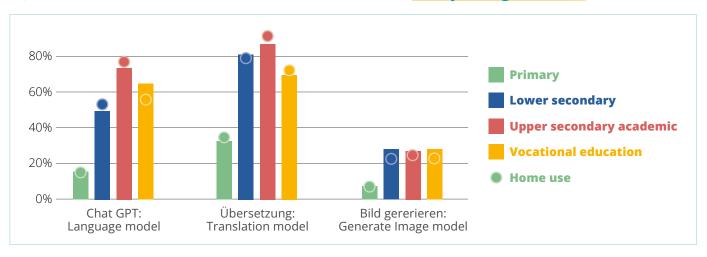
Section Four: Al tools and models and equitable access

This section provides an overview of the prevalence and use of AI tools and models across member organisations and their efforts to support equitable access within their education systems.

The contribution from **Scotland** indicates that anecdotal evidence suggests that teachers and students are primarily using embedded tools such as *Microsoft Copilot* and *Google Gemini*. The Scottish government has committed to developing guidance on the use of AI tools in education and discussions are ongoing to develop an EdTech Framework based around the work of **EduEvidence** >. This is a global, not-for-profit organisation that evaluates and certifies EdTech tools. It currently has 1200 tools from across 70 countries certified in a **catalogue** > of recommended EdTech products. Nationwide investment in digital devices for schools in **Slovakia** includes licenses for Microsoft Office 365, which includes *MS Copilot*. Here, each school has autonomy over how the devices are used. There is no 1–1 device policy.

A study from **Switzerland**, carried out by way of four student surveys between 2020 and 2024 finds that there is a significant increase in the use of AI tools among students.

Fig 12: Use of AI in the classroom and at home for school tasks
(Source: Swiss Coordination Centre for Research in Education; survey among students >)



The data shows that the use of AI tools starts to grow at the level of lower secondary, with these tools being primarily used for translation (for example *DeepL*), but with ChatGPT being used by between 50% - 75% of students for educational purposes. At the upper secondary level more than 40% of students use ChatGPT at least once a week for education purposes with more than 50% engaged in the use of translation tools at least once weekly. The student survey also shows that between 20 and 30% of students buy new devices for school out of private money. Given the rise in the use of AI tools by students, **Slovenia** has taken steps to support their parents, and in February 2025 a webinar for parents (Pitfalls of Artificial Intelligence) was hosted via YouTube.

In **The Netherlands** there is also widespread use of commercially available AI tools, but schoolboards are reluctant to use AI in school systems because of concerns around privacy. Of late, government organisations have more freedom to experiment with AI tools, but awareness of privacy is always a concern. Schools do have freedom to choose which AI tools they use, and the Dutch government has established an AI research fund, the Dutch Educational Laboratory in AI (NOLAI). The Netherlands Institute for Curriculum Development (SLO) hopes to enhance NOLAI with data which will allow all applications to access the legal goals for Dutch education.

Luxembourg has taken steps to ensure equitable access to Al tools for education. The *Kaligo* app is available to all teachers in primary education (from cycle 1-3.1) through a national partnership. The application, which supports early literacy and numeracy, is supported by AI, providing real-time personalised feedback via tablet and web interfaces, and access is provided by SCRIPT (an entity of the Ministry of National Education, Childhood and Youth), and the Centre pour le Development des Apprentissages (CDA). In Autumn 2025 a dedicated platform will provide school leaders, with legally approved and pedagogically sound AI tools, to ensure equitable access for all, regardless of their financial or technical backgrounds. Furthermore, every student in public secondary education will receive a digital device, funded and managed by the school system. New policy decisions are expected in 2025-26 but the contribution from Luxembourg suggests that while equity of access to tools is essential, equity is also supported by ensuring that all students develop the skills to effectively utilise the tools and they hope to achieve this through curriculum development. In Belgium [Flanders], equitable access to digital devices is one of the cornerstones of the **Digisprong programme** >, with additional support being provided to vulnerable groups. In **Wales** funding supports schools in ensuring that all students have opportunity to use digital tools, but the provision of individual devices is dependent on the individual's specific needs and the resources available within each school.

The National AI commission in **Sweden** has suggested that AI tools should be made freely available to the public. While some public-private partnerships exist, no political steps have been taken to support this aspiration, primarily because of the decentralised nature of the education system. Anecdotal evidence does suggest that common commercial AI tools are used in schools. In Ireland, where anecdotal evidence also suggests that common commercial AI tools are use in schools, the AI Advisory Council has advised the government of the necessity to ensure equitable access to generative AI tools for Gaelscoileanna, where the language of teaching and learning is in Irish. Issues of securing data and the principles of equity, accessibility and inclusion are also prominent in an advisory paper published by the Council. Concrete steps to ensure equitable access to a large language model in the Slovenian language is already underway with the **Povejmo.si** > project in **Slovenia**. The Welsh Government are also seeking to enhance AI capabilities to ensure equitable access for Welsh speaking learners and so in Wales national public-private partnerships with organisations like Microsoft and Open AI exist. The Welsh Language Technology Action Plan identifies the necessity for making Welsh language technology accessible to developers as well as end users, as the development of such tools will increase the use of the Welsh language and will ensure that Welsh-speaking learners feel safe and protected from harmful content.

Inequity can also arise from the access that teachers and educators have to tools and many contributing members are taking steps to address this. **Slovenia** identifies a number of ways that AI might support teachers including supporting the automation of routine tasks, searching for relevant content, preparing unit and lesson plans aligned to curriculum goals and national standards and analysing data on learning progression to support differentiation in teaching. A new online platform, PLATON (Platform for Organising and Planning Teaching) has been developed by the National Education Institute **Slovenia** (ZRSŠ) and will incorporate both an AI Assistant and an AI Wizard. The assistant will help in providing access to materials aligned to the curriculum and the

wizard will support teachers in planning for differentiation and teaching tailored to individual needs, based on data from students. The AI models will support Slovenian, Italian and Hungarian language, and all AI models will be replaceable and will comply with regulations such as GDPR and the EU AI Act. In **Switzerland**, the umbrella organisation of teachers demands that educational administration and technology firms collaborate to ensure that access to AI for educators and users is equitable while The Ministry of Education in **Slovakia** is also planning to explore the possibilities of AI assistants for teachers and students. The AI Advisory Council in **Ireland** is also particularly supportive of any AI tools in use in education being private, secure and free to use for all teachers and their students.

With the accelerated developments in AI tools, members are aware of how inequities might arise, and many are focused on addressing these inequities from the outset. In addition, previous regulations which include the collection of data are also being considered. However, evidence, both anecdotal and qualitative, suggest that the use of commercially available AI tools in education settings is already widespread.

This audit is a first step in expanding our understanding of AI and education by providing insights to help educators and policymakers make informed decisions. It encourages reflection on current AI use and highlights emerging trends and examples of innovative AI practices across the CIDREE network. This audit has the potential to support policymakers and educators in developing and integrating AI within curriculum, assessment and professional learning initiatives. AI presents both opportunities and challenges for education systems. Given AI's rapid evolution, an updated audit is planned for 2026 to continue to track emerging developments and policy responses in this changing landscape.

Appendix One: Education system overview and funding structures

Colour Code Key:

Education System description

Primary Curricula Post-primary Curricula **Funding**

AI Models

Table 1: Belgium [Flanders] and Ireland

BELGIUM [FLANDERS]

Structure of Education System

Elementary education comprises both early childhood education and primary education . Early childhood education is accessible for children from two and a half to six years old. Although it is not obligatory for children up until 5 years old, almost all children participate in early childhood education. Early childhood education supports the versatile formation of children and stimulates their cognitive, language, motor and affective development. Primary education is targeted at children from six to twelve years old and comprises six subsequent grades.

Students aged 12 to 14 attend the first stage of secondary education. The first stage prepares students for study choices in the second stage. In general, students with a certificate of primary education start in the 1st year A-stream, students without—a certificate have to start in the 1st year B-stream. In the second and third stage of secondary education, students choose an education programme. Each educational programme belongs to a domain and an orientation. There are eight domains or areas of interest (STEM, Arts,...) and 3 orientations: orientation to higher education (linked to a domain or not), vocational orientation or a combination of both. Each domain encompasses a wide range of education programmes in the three different orientations.

Matrix secondary education Flanders >

More information on https://vlaamsekwalificatiestructuur.be/links-en-publicaties/koppelingsrapport_BENL 2023-UPDATE.pdf > (page 24–31)

IRELAND

Education is compulsory for children in **Ireland** from the ages of 6 to 16 or until students have completed three years of post-primary education. The Irish education system incorporates primary school and post-primary school. Primary education consists of an 8-year cycle: junior infants, senior infants, and first to sixth classes. In **Ireland** all children are entitled to free primary education.

Post-primary education caters for students generally in the 12–18 age group. A three-year junior cycle culminates in the awarding of the **Junior Cycle Profile of Achievement** > (JCPA). Students can then enter **Transition Year** >, an optional year long programme that supports students as they transition to senior cycle or move directly into the **Leaving Certificate Established** > with progression pathways predominantly focused on Higher Education. Students on the LCE programme can choose to take an optional vocational programme known as the **Leaving Certificate Vocational Programme** >. Alternatively students may choose the **Leaving Certificate Applied** > programme, with progression routes predominantly in Further Education and Training.

BELGIUM [FLANDERS]

Primary Curriculum and Digital Technologies and Al

In **Belgium** education falls under the jurisdiction of the three language communities: the Dutch-speaking, the French-speaking and the German-speaking community. This questionnaire pertains to the curriculum of the Flemish-speaking community. The core curriculum consists of minimum goals set by the Flemish government. Schools must include these minimum goals when drawing up their curricula.

The curriculum of primary education comprises at least: Subject areas: Dutch, mathematics, education in the arts, French (only in the last 2 grades), physical education, science and technology, people and society, and the cross-curricular themes: learning to learn, social skills and ICT.

The current minimum goals date back to 1998. Over time, some new goals have been added, with ICT added in 2007. New minimum goals for primary education are currently being developed and changes are being made to the content framework. ICT is a subject area in these new goals.

There is no explicit reference to AI in the primary core curriculum.

IRELAND

The national curriculum has recently undergone significant redevelopment, with changes made to curriculum structure and presentation. It is presented in five areas, some of which are further subdivided into subjects. These include Arts Education, Language, Science, Technology Engineering and Mathematics Education, Social and Environmental Education and Wellbeing. The redeveloped curriculum will be enacted in stages over the coming years, replacing the 1999 Primary School Curriculum.

The **Primary Curriculum Framework** > was published in early 2023 and forms the basis for high-quality learning, teaching and assessment for all children attending primary and special schools.

In the redeveloped *Primary Curriculum Framework* >, seven key competencies, which are embedded across all curricular areas, outline the broad capabilities which children will develop across each stage of primary education. One key competency is 'being a digital learner'. This competency aims to support children's ability to collaborate and thrive in a world which is increasingly immersed in technology.

For the first time in primary education in **Ireland**, Technology is also explicitly introduced within the broader area of Science, Technology and Engineering Education with a focus on children using and creating with technology. Children learn about different aspects of technology across other curricular areas, for example digital safety skills in Wellbeing.

Currently there is no explicit reference to AI in the primary curriculum.

BELGIUM [FLANDERS]

Post-primary Curriculum and Digital Technologies and Al

The core curriculum for secondary education consists of minimum goals set by the Flemish government. Schools must include these minimum goals when drawing up their curricula.

For each stage, a set of minimum goals for the basic curriculum is defined per stream (first stage) or orientation (second and third stage). In addition, there are also minimum goals for the specific curriculum of each education programme of the second and third stage. Only the basic curriculum will be discussed here. The minimum goals of the basic curriculum for secondary education are linked

to 16 key competences

Physical and mental health; Dutch; Other languages; Digital competences;

Socio-relational competences; Mathematics, exact sciences and technology;

Citizenship; Historical awareness; Spatial awareness; Sustainability; Economic and financial competences; Juridical competences; Learning competences;

Learning objectives for secondary education Flanders >

Self-awareness; Entrepreneurship; Cultural awareness.

Digital competence and media literacy encompasses the familiarity with, engagement with, and critical and responsible use of digital technologies to learn, work and participate in civic life.

In the first stage, this key competence focuses on

- using basic features of digital applications to communicate and to create and manage digital content,
- respecting ethical, social and legal rules when using digital technology
- designing a digital and non-digital algorithm according to the principles of computational thinking and on debugging that algorithm.
- In the second stage there's focus on:
- using common features of similar digital applications to communicate and to create and manage digital content,
- respecting ethical, social and legal rules when using digital technology,
- analysing the impact of digital systems on society on the basis of principles of computational thinking.

In the third stage, further efforts are made to use common features of similar applications to create digital content and to respect ethical, social and legal rules when using digital technology.

There is no explicit reference to AI in the curriculum.

IRELAND

There is a national curriculum for both junior and senior cycle.

The *Junior Cycle Framework* provides the overall structure to junior cycle, which is composed of subjects, short courses and other learning experiences, in addition to a **Level 1/ Level 2 Learning Programme** programme to students with global development delay. Schools have autonomy to design and plan their approach to a curriculum that suits their school context and students best, through the framework.

The <u>Transition Year Programme Statement ></u> provides overall guidance and support for schools to design a Transition Year that meets the needs of their learners.

Senior cycle > redevelopment commenced in 2022. Currently subjects specifications and programme statements support schools in their approach to providing a senior cycle curriculum. Redevelopment initially is focusing on the redevelopment of subjects and modules, with further work planned on flexible and diverse pathways through senior cycle.

Within all subjects and modules across all programmes in junior and senior cycle, there is a focus on the development of digital skills through teaching, learning and assessment practices, underpinned by the **Digital Strategy for Schools** >.

Short courses on <u>Coding</u> and <u>Digital Media Literacy</u> are available in junior cycle, while <u>Computer Science</u> is available as a subject in senior cycle.

Currently, there is no explicit reference to AI in the post-primary curriculum.

BELGIUM [FLANDERS]

Funding to support Digital Technologies and student devices

Flanders has invested 460 million euros in a major digital leap for all schools, pupils and teachers as part of the 'Flemish Resilience' recovery plan., following the corona crisis.

This extra budget was allocated for certain purposes and spread over two schoolyears:

- Strengthening the ICT infrastructure within the school walls;
- Shared-use devices (for early childhood education and 1-4 year of primary education);
- An ICT device for every student in the 5th and 6th year of primary education;
- An ICT device for every secondary education student.

The "Digisprong programme" has contributed to an accelerated digitisation of Flemish education. The programme led to an increase in ICT infrastructure in Flemish education, which also improved access to digital education for pupils and teachers.

in primary schools there is now more than one device for every two pupils. In secondary education there is even more than one device for every student (desktops, laptops, chromebooks or tablets).

In primary-schools the devices are mainly used only in the schools. In secondary schools there are different kinds of rental/leasing systems where students get a personal device, also to work at home.

MICTIVO > | Mediawijs Digisprong programme >

Approved Models of Al

There is no officially approved AI model for use in the Flemish primary/post-primary schools.

IRELAND

Digital funding underpins the **Digital Strategy for Schools** and in the past number of years all primary and post-primary schools in **Ireland** have received funding to support the effective use of digital technologies in learning, teaching and assessment.

Schools have autonomy in how this funding is used and they can determine their own infrastructural requirements. Schools are expected to put in place Digital Learning Plans (DLPs), which outline their goals for digital learning and align their ICT grant expenditure with their overall school planning. Additionally, project funding for digital technologies is available through different initiatives, which schools may apply for.

Practice varies in providing access to devices for students and there is not one centralised approach. Some post-primary schools use personal student devices such as tablets in place of text books. Some post-primary schools work with a bring your own device policy.

Many schools in **Ireland** provide access to school based digital devices for students to use throughout the school day

There is currently no approved Al model for use in Irish primary/post-primary schools.

Table 2: Luxembourg and Scotland

LUXEMBOURG SCOTLAND

Structure of Education System

The **Luxembourg** education system encompasses a variety of levels, including early education, primary, and secondary schooling.

Early childhood education may begin as early as age 3 and is divided into two years of compulsory pre-school for ages 4- 5. Primary education, from 6 to 11 years old, includes cycles 2 to 4 of elementary school.

Secondary education offers two paths: the classic secondary education (ESC) and general secondary education (ESG). Upon completing secondary education in **Luxembourg**, students obtain either the Diplôme de fin d'études secondaires from classical secondary education, leading to higher education, or the Certificat de fin d'études secondaires générales from general secondary education, opening paths either to higher and/or further education as well as to vocational careers. Additionally, vocational program graduates receive a Vocational Capacity Certificate or a Technician's Diploma, qualifying them for specific trades or further specialised training.

Education is compulsory for children in **Scotland** from the ages of 3 to 16. The Scottish education system incorporates early years , primary school and secondary school. **Scotland's Curriculum for Excellence** (scotlandscurriculum.scot >)

Early years is age 3 to 5 although some children will start Primary at age 4. Primary education consists of 7 years and Secondary is 6 years, 4 of which are compulsory.

Curriculum for Excellence is our curriculum framework which is a guidance framework for ages 3 to 18.

This is broken down in to Broad General Education (age 3 to 15) and Senior phase (16 to 18)

Primary Curriculum and Digital Technologies and Al

In **Luxembourg**, the national primary education curriculum covers 6 distinct development and learning areas/domains: language education—which includes **Luxembourgish**, French, and German—mathematics, natural and social sciences, the arts, physical education, and Community life and its values.

The curriculum is designed to provide a balanced educational experience, fostering academic skills and personal development.

The current 2009 curriculum features a transversal competence area called media education, where digital technology and skills are featured. These competences are based on the national media literacy framework, 'Medienkompass >'.

Computational thinking and coding are integrated into the mathematic courses in upper primary education

There is an ongoing curriculum reform project in **Luxembourg**, with a **new curriculum** > expected to be introduced in 2026.

Given that one of the proposed pillars of the new curriculum is "Digitality" (alongside Wellbeing, Multilingualism, & Participation) there's a certain likelihood that AI may be explicitly mentioned in the new curriculum of 2026.

There is currently no explicit reference to AI in the primary curriculum.

There is a national curriculum.

Currently, the curriculum is presented in 8 areas, some of which are further subdivided into subjects. These include responsibility of all (Numeracy and Mathematics, Literacy and English, Health and Well Being), Science, Expressive Arts, Technologies, Social studies, Religious and Moral education and Languages. Curriculum areas | Curriculum for Excellence | Education Scotland >

The Broad General Education is taught throughout early years and primary(technically to year 3 in secondary) and is a competency based framework.

Computing science and digital literacy are part of the curriculum from age 3 and have been since 2007 (with a significant review in this are taking place in 2016).

While there is no explicit reference to AI in the curriculum, it is envisaged that because of curriculum reform currently underway learning about and through AI is expected to be included.

LUXEMBOURG SCOTLAND

Post-Primary Curriculum and Digital Technologies and Al

There are nationally binding curricula for all of the subjects being taught in **Luxembourg**'s secondary schools.

The legislation guiding **Luxembourg**'s schools doesn't specifically mention Artificial Intelligence. However, it emphasises the development of "computational thinking" and "digital competencies" as part of children and young people's education

As computation thinking and digital competencies are competencies that pupils and students are meant to develop in the course of their schooling, these competencies are either explicit or implicit component-elements of a variety of subjects or study programmes.

Elements of digital technology can be found within the curricula of language, mathematics, sciences, and arts courses as well as being the integral part of an entire discipline, such as the newly introduced course called "Digital Sciences >" (lower secondary education). Introduced in 2022, this course covers Al as one of its 6 key topics. In this respect, basics of Al technology, current Al applications as well as ethical aspects are included in the curriculum.

It is a national curriculum.

Currently, the curriculum is presented in eight areas, some of which are further subdivided into subjects. These include responsibility of all (Numeracy and Mathematics, Literacy and English, Health and Well Being), Science, Expressive Arts, Technologies, Social studies, Religious and Moral education and Languages.

The Broad General Education is taught until year 3 in secondary schools and from year 4 to 6 learners will be working towards National Qualifications.

There are a range of qualifications on offer relating to digital and a number of these **include elements of learning about creating Al. Computing Science - SQA**NQGA Computer Science / Software / Hardware - SQA >

Funding to support Digital Technologies and access to devices for students

Digital funding underpins the digital strategy.

In primary schools, the municipalities are responsible for the school budget and release budget items at the request of the schools or carry out the purchases. In this context, a wide range of digital education purchases have been made in recent years, including the acquisition of class sets of iPads or laptops and learning-related software.

Secondary schools have their own budget with which they can also purchase specialised hardware or software that is not provided nationally. Nationally, iPads or laptops are provided as hardware (rental model) and software (e.g. O365).

In the framework of the national "one2one"-strategy, mobile devices such as iPads have been widely introduced in secondary schools.

To this end, the Centre de gestion informatique de l'éducation (CGIE) has implemented an ambitious programme for the multi-year acquisition of iPad-type tablets to meet the needs of secondary schools. All requests for mobile devices must be accompanied by a well-crafted pedagogical dossier, including a detailed description of the pedagogical project, which must be supported by a motivated team of teachers. In terms of hardware, the national strategy for making devices available is based on an annual rental model. The annual rental for an iPad is 50 Euro and for a laptop 80 Euro.

Local Authorities (LA) in **Scotland** receive the funding to deliver and improve education in Scottish schools.

LA's have autonomy in how this funding is used and they can determine their own infrastructural requirements. Schools may also have some flexibility in terms of resource but this will be within LA requirements. Additionally, project funding for digital technologies is available through different initiatives, which schools may apply for.

Some Scottish LA's have moved to provide 1 to 1 devices for learners in recent years but this has not happened across all 32 LA's.

However, many schools in **Scotland**, provide access to school based digital devices for students to use throughout the school day.

A	pp	ro	V	ed	
M	od	lel	s	of	A

There is currently no approved AI model for use in **Luxembourgish** schools.

There is currently no approved AI model for use in Scottish primary/post-primary schools.

Table 3: Slovenia and Sweden

SLOVENIA

Structure of Education System

The **Slovenian** education system consists of primary, secondary and tertiary education. School leaving qualifications are classified by the **Slovenian** Qualifications Framework.

Primary education is provided by public and private kindergartens, basic schools, basic schools with an adapted education programme, music schools and educational institutions for children with special educational needs. According to the legislation of the Republic of **Slovenia**, all children must necessarily receive basic general education that is to finish primary school. Training is free for both **Slovenian** citizens and foreign children. Studying at a primary school lasts 9 years at the age of 6 to 15 years. At the end of the 6th and 9th grades, children have to pass the National Knowledge Assessment Test.

Secondary education is provided by upper secondary schools and secondary schools. It is classified as general or vocational technical and secondary professional or technical education. In secondary vocational educational institutions, students study for 3 years and at the end of the studies, students must pass a final examination. Secondary technical and vocational education lasts 4 years and end with final examinaton (In Slovene: poklicna matura). General secondary education in grammar schools also lasts 4 years and end with General Final Examination called splošna matura.

The third segment of education, **tertiary education**, is provided by both public and private institutions. It consists of higher post-secondary vocational education and higher education. Higher post-secondary vocational education is provided by higher vocational colleges, while higher education is provided by faculties, academies and independent higher education institutions.

SWEDEN

The Swedish education system includes compulsory and non-compulsory education. Most Swedish schools are public, run by the municipalities, but an increasing number of schools are independent.

An amount of money is granted and follows each pupil to whatever school they choose, either municipal or independent. A school that receives grants from the municipality is not entitled to collect school fees.

For children between 1 and 6 the municipalities offer voluntary pre-school.

Education is compulsory for 10 years in **Sweden**. Children start school when they are 6 (reception/pre-school class) followed by 9 years of schooling which mean they finish compulsory school when they are 15.

After compulsory schooling most pupils apply for upper secondary school ('gymnasium') where they study for 3 years in a theoretical or vocational programme and the diploma they receive qualifies them for higher education or a profession respectively. It is also possible to qualify for higher education through a vocational programme.

In addition to this we have municipallity funded adult education. This form of education makes it possible for adults who haven't passed compulsory school or need to supplement parts of their secondary education to be able to progress in the education system. Adult education also provides Swedish for immigrants.

	SLOVENIA	SWEDEN
Structure of Education		For each part of the system there is a parallel form of education for pupils/students/adults with intellectual disabilities.
System (continued)		Map showing the Educational system > Read more about each part of the system > Compulsory School for pupils with Intellectual Disabilities > Upper Secondary School for Pupils with Intellectual Disabilities > Municipal Adult Education for Adults with a Intellectual Disabilities >
Primary Curriculum and Digital Technologies and Al	We have a national curriculum for primary education. The primary school curricula is currently being revised. The renovation will be completed by 2026. Digital technology has a role to play in the national curriculum for primary education. Among the didactic recommendations, it is stated that teachers should use digital technology in their teaching and that they should also train pupils to use digital technologies in a meaningful way in their learning.	 There is a national curriculum for primary education. Digital competence is part of the Swedish curriculum for primary education. Digital competence for pupils in this context mean: To be able to use and understand digital tools and media To have a critical and responsible approach To understand the societal impact of digital transformation To be able to solve problems and turn ideas into action
	There is no mention of AI in the current curricula.	Extract translated from these documents. primary and lower secondary school: https://www.skolverket.se/publikationsserier/kommentarmaterial/2023/fa-syn-padigitaliseringen-pa-grundskoleniva

SLOVENIA

Post-Primary Curriculum and Digital Technologies and Al

We have a national curriculum for postprimary education. The post-primary school curricula is currently being revised. The renovation will be completed by 2026.

Yes, digital technology has a role to play in the national curriculum for post-primary education. Among the didactic recommendations, it is stated that teachers should use digital technology in their teaching and that they should also train pupils to use digital technologies in a meaningful way in their learning.

There is no mention of AI in the current curricula

SWEDEN

It is a national curriculum

Digital competence is part of the Swedish curriculum for post-primary education

Transversal competencies and skills relevant to AI are already present in the Swedish curriculum and were not inserted as a particular response to AI. Among some of them are the ethical perspective, sustainability, critical thinking and creativity. Source criticism and source awareness are mentioned in the curriculum and several subject syllabi, such as civics and language teaching. A critical approach to and responsible use of digital tools is promoted and pupils are encouraged to think about the interaction between technology and society.

Starting in the school year 2024/2025, **AI will be offered as an optional subject at the Upper Secondary level**. The subject contains two perspectives, a technical perspective and a societal perspective. It is also adaptable to the programme of the pupils.

An Al subject for Upper Secondary school was already in development before the most recent wave of Al interest, however, it will enter into force one year earlier than initially planned to meet demands from stakeholders. It has been positively received by both teachers and pupils.

Al is explicitly mentioned in a few other subjects, for example in Mathematics specialisation as an optional topic and in a few vocational courses.

For more general aspects of AI, such as AI-literacy, we are currently looking into preambles for social science subjects, among others, if it would be feasible to mention AI more specifically instead of digital competence generically.

upper secondary school: https://www.skolverket.se/publikationsserier/
kommentarmaterial/2017/fa-syn-pa-digitaliseringen-pa-gymnasial-niva >
adult education: https://www.skolverket.se/publikationsserier/kommentarmaterial/2020/

fa-syn-pa-digitaliseringen-i-vuxenutbildningen >

	SLOVENIA	SWEDEN
Funding to support Digital Technologies	Funds for the purchase and investment maintenance of digital equipment are provided from the funds of the state budget for upper secondary and tertiary schools, institutions for children and adolescents with special needs and dormitories for students. Exceptions are primary schools and high schools, whose founders are municipalities. Funds for them are provided by local communities.	Schools are allocated funding per pupil from the municipality and have autonomy in how this funding is used. Every student has access to a personal device. The devices are provided by the school. Schools are allocated funding per pupil from the municipality.
and access to devices for students	Primary schools have partial autonomy in the use of these funds. According to the school set goals in their Annual Work Plan, schools use part of the municipal funds for the purchase of basic equipment, classrooms and teaching aids, but mostly they receive the equipment offered by the most favourable bidder in a public tender co-financing from the European Union, the European Fund for Regional Development and the Ministry of Education. Similarly, secondary schools have a certain degree of autonomy in allocating the funds they receive from the funder (Ministry of Education). Based on perceived needs, each school allocates part of these funds for investments in digital resources.	
	There isn't a clear-cut answer to whether every student in Slovenia has a personal digital device for school.	
	While digital technology is emphasised in Slovenian education, it likely involves a mix of school-provided devices and students using their own phones/tablets.	
	It's true that some schools in Slovenia have been equipped with tablets through participation in projects that promoted the meaningful use of digital technology and piloted electronic textbooks. These schools were equipped by the Ministry of Education and Sports.	

Approved
Models of Al

We do not have any Al models approved for use in primary and post-primary schools.

This indicates that the **Slovenian** government actively supports the use of digital tools in education, although it doesn't necessarily mean every student in the country has their own personal device.

There is currently no approved AI model for use.

Table 4: Switzerland and The Netherlands

SWITZERLAND

Structure of Education System

Strong state schools with local roots and a high degree of permeability between the different programmes of education

Public compulsory education is free of charge for all children.

The 26 Swiss cantons are responsible for compulsory education, i.e., until lower secondary education (ISCED 0–2). It amounts to 11 years, eight years primary level and three years lower secondary level.

In post-compulsory education (ISCED 3–8) the confederation and the cantons share responsibility and work closely together.

The upper secondary education system (ISCED 34+35) allows for two major tracks, i.e., a) the vocation education and training (VET) track and b) the general education track (e.g., baccalaureate)

VET tracks have country-wide standardised curricula and lead to a country-wide accepted certificate. When combined with a VET baccalaureate the certificate allows to go to a "university of applied sciences". Moreover, colleges of higher education provide graduates of a VET track with further tertiary education possibilities.

The general education track is in the responsibility of the cantons. Accordingly, there is no country-wide standardised baccalaureate. However, the certificate allows graduates to go to any Swiss university, federal institute of technology or university of teacher education.

Graphical Overview >

Primary Curriculum and Digital Technologies and Al

Curricula, teaching material and number of lessons per subject are specified by the cantons.

The Inter-cantonal agreement on harmonisation of compulsory education (HarmoS Agreement) > stipulates a harmonisation of the curricula on the level of the linguistic regions.

- French speaking part: «Plan d'études romand (PER)» (5 cantons)
- German speaking and multilingual part: «Lehrplan 21»
- Italian speaking part: «Piano di studio»

THE NETHERLANDS

Full-time education is compulsory in the Netherlands from the ages of 5 to 16.

From ages 16-18, students must attend some form of education for at least two days a week.

Mainstream primary education lasts 8 years and is for all children aged 4 to 12.

Secondary education encompasses schools providing:

- Pre-vocational secondary education (VMBO, duration of 4 years)
- Senior general secondary education (HAVO, duration of 5 years)
- Pre-university education (VWO, duration of 6 years)

VMBO comprises four learning pathways:

- the basic pre-vocational programme (BBL),
- the middle-management pre-vocational programme (KBL),
- the combined pre-vocational programme (GL) and
- the theoretical pre-vocational programme (TL).

These pathways lead on to vocational programmes (MBO). After completing a combined or theoretical programme, students may also move on to HAVO.

HAVO and VWO courses prepare students for tertiary education programmes/higher education (havo: applied sciences and vwo: academic level).

https://eurydice.eacea.ec.europa.eu/national-educationsystems/netherlands/overview >

The Dutch law sets primary education core objectives for each learning area. The objectives indicate what children should be offered in education to achieve knowledge and skills by the end of primary school. All children must be enabled to achieve the core objectives. Schools are free to choose appropriate contents, materials and pedagogical approaches.

SWITZERLAND

THE NETHERLANDS

Primary
Curriculum
and Digital
Technologies
and Al
(continued)

Because education is locally rooted, tailor-made solutions can be implemented.

German part: Reference digital technologies as the curricula have references to the overarching topics «Media», «Informatics» and «Usage»

French part: Since autumn 2024, an entirely new section on digital education exists and references technologies (such as robots).

Italian Part: Yes, the curricula reference digital technologies. However, it refers to a part of the curriculum that allows for options.

In the generic curricula

in all linguistic regions

Al has no explicit

reference. However,
cantons have the
possibility to go further
than the generic
curricula. An analysis in
some sample cantons
results in no explicit

reference to Al.

Compulsory areas of learning areas are: Dutch; English; Arithmetic and mathematics; Orientation to yourself and the world (including geography, history, biology, citizenship, road safety and political studies); arts and culture (including music, drawing and handicrafts); movement and sport; citizenship (new, core objectives under development); digital literacy (new, core objectives under development).

German part: References NB Frisian is a compulsory subject for primary schools in the province of Friesland

In March 2024 new draft **core objectives for digital literacy** were published by SLO. The new core objectives are expected to be implemented from 2027.

The new draft core objectives include specific objectives for digital literacy which can be divided into three strands:

Strand 1: Practical knowledge & skills (1–5)

Strand 2: Design and create (6 and 7)

Strand 3: Interplay between digital technology, digital media, people in society (8 and 9)

- **1.** (digital systems) The pupil uses digital systems in a functional way.
- **2.** (digital media and information) The pupil navigates purposefully the world of digital media and information for acquiring and processing information.
- **3.** (safety and privacy) The pupil uses digital systems, data and privacy-related matters (own or someone else's) with great safety.
- 4. (data) The pupil explores the use of data and data processing.
- **5.** (Artificial Intelligence) The pupil explores how Artificial Intelligence systems work.
- **6.** (creating with digital technology) The pupil uses appropriate strategies when creating different types of digital products.
- 7. (programming) The pupil uses computational thinking strategies when programming.
- **8.** (digital technology, self and others) The pupil makes informed decisions when using digital technology and digital media.
- **9.** (digital technology, society and the world) The pupil explores how digital technology and society impact each other.

Core objective 5 is about **pupils exploring the possibilities and limitations of Al**.

There are also several dashboards working on AI which helps teachers to monitor students results.

SWITZERLAND

Post-Primary Curriculum and Digital Technologies and Al

Curricula, teaching material and number of lessons per subject are specified by the cantons.

The «Inter-cantonal agreement on harmonisation of compulsory education (HarmoS-Agreement)» stipulates a harmonisation of the curricula on the level of the linguistic regions.

- French speaking part: «Plan d'études romand (PER)» (5 cantons)
- German speaking and multilingual part: «Lehrplan 21»
- Italian speaking part: «Piano di studio»

Because education is locally rooted, tailor-made solutions can be implemented.

Upper Secondary

Differs across tracks:

General Education track:

Curricula are defined and ratified by the cantons.

Some cantons have canton-wide curricula for baccalaureate schools, others have curricula at the school level.

However, there is a framework curriculum published by the Swiss Conference of Cantonal Minsters of Education.

VET-track:

The State Secretary for Education, Research and Innovation ratifies for each occupation (around 200 occupations) a nation-wide curriculum that defines both the firm-level training (3-3.5 days a week) and the school-level training (1.5 – 2 days).

For occupational curricula, an obligation exists that curricula must be reevaluated every five years. This should ensure that curricula are up-to-date also with respect to new technologies

The VET-schools base their curricula for the school-level part of the track on the content of these nation-wide curricula.

THE NETHERLANDS

National core objectives for lower secondary education and attainment targets for upper secondary are defined in law and regulations for all strands. Like in primary education, core objectives indicate what children should be offered to achieve knowledge and skills. School boards are responsible for the quality of education, and the achievement of the national targets. In other words, the Dutch education system is on the one hand highly centralised, and on the other hand highly de-centralised.

For lower secondary education (ages 12-15) new draft core objectives are being developed which include objectives for digital literacy and build on those developed for primary education. In March 2024 both sets (primary and lower secondary education) were published in one document. They were developed together with teachers from primary and lower secondary education and other experts in the field of digital literacy, coordinated by the Dutch institute for curriculum development SLO.

Since 2022, a comprehensive revision of the national examination programmes for all strands of upper secondary education has been taking place. Relevant aspects concerning digital literacy and the use of digital technology will be incorporated in the attainment targets for the different subjects. Evaluation and trial phase of the new targets will take place from 2025 onwards.

In the **new objectives specific attention is paid to AI in core objective** 5, building on core objective 5 for primary:

PRIMARY EDUCATION

5.The pupil explores how Artificial Intelligence systems work.

LOWER SECONDARY

5. The pupil explores the possibilities and limitations of Artificial Intelligence.

There are also several dashboards working on AI which helps teachers to monitor students results. A lot of the time teachers are unaware that AI is running

SWITZERLAND THE NETHERLANDS

Post-Primary Curriculum and Digital Technologies and Al (continued)

Digital Technologies in Lower Secondary

German and French part: The curricula has references to the overarching topics «Media», «Informatics» and «Usage»

Italian Part: The curricula has references, however they reference to a part of the curricula that allows for options.

Digital Technologies in Upper Secondary

General Education track:

The **framework curricula** > contains information on digital technologies. Moreover, there is an explicit supplementary **document** > linked to the curricula that focuses on informatics.

VET-track:

The part of the nation-wide curricula that covers general education does explicitly mention digital technologies

For the occupation-specific parts of the curricula it is difficult to say, since there are over 200 specific curricula. Many of them will for sure contain content on digital technologies, e.g. curricula on occupations such as «Information scientist», «business data processing specialist», «cyber security specialist».

Explicit reference to Al

Lower Secondary

German and Italian part: In the generic curricula in all linguistic regions **AI has no explicit reference**. However, cantons have the possibility to go further than the generic curricula. An analysis in some sample cantons results in no explicit reference

French part: **There is an explicit reference to Al w.r.t** the learning goal of «distinguishing the influences of digital technologies at the societal, economic and environmental level»

Upper Secondary

General Education track:

The **framework curricula** > references Al in the part where the goals regarding informatics are defined. One of the basic knowledges should be: «Comparing human thinking with thinking models in artificial systems».

Given that curricula in general education depend on the cantons it is not clear, whether cantonal curricula make additional references to AI.

VET-track:

The part of the nation-wide curricula that covers general education **does not explicitly reference to AI**.

For the occupation-specific parts of the curricula it is difficult to say, since there are over 200 specific curricula.

	SWITZERLAND	THE NETHERLANDS
Funding to support Digital Technologies and access to devices for students	There are no standardised rules regarding funding. In particular in compulsory education since this is largely financed by municipalities and cantons. No standardised rules regarding the provision and funding of digital devices. In particular in compulsory education since this is largely financed by municipalities and cantons.	Schools are very autonomous in choosing their materials. No difference is made between digital and non-digital resources. Primary schools receive a budget for providing good education via a lump sum funding model. The lump sum is intended to finance staff, housing and material costs for teaching. Within the legal framework of the Netherlands, school boards can allocate the available resources at their own discretion to achieve their educational goals. The funding of primary education (including special schools for primary education) is governed by the Primary Education Act > (in Dutch). The funding of secondary schools is governed by the Secondary Education Act > (WVO). Schools receive a block grant consisting of a staff component and a component for operating costs. Block grant funding provides the competent authority with more freedom to decide how resources are allocated and also to negotiate staff salaries and conditions. (Negotiations on salary and conditions in secondary education are partly decentralised.) Schools are free to decide to purchase digital device from their school budget
Approved Models of Al	There is currently no approved AI model in Switzerland for use across all primary/post-primary schools.	There is currently no approved AI model in The Netherlands for use across all primary/post-primary schools.

Table 5: Slovakia and Wales

SLOVAKIA WALES

Structure of Education System

Pre-primary education is provided by kindergartens and is intended for children aged 3 to 6. Children who reach the age of 4 on 31 August are legally entitled to be admitted to kindergarten. Children who reach the age of 5 on 31 August start compulsory pre-primary education in kindergarten.

Compulsory schooling lasts for 10 years (ages 6 to 16) and pupils complete it by completing the first year of upper secondary education or by reaching the age of 16.

Primary and lower secondary education is organised as a single structured system lasting 9 years (primary education 4 years and lower secondary education 5 years).

Upper secondary education starts at the age of 15 and is organised as general, vocational or artistic education. General upper-secondary education is provided by 4-, 5- or 8-year grammar schools (11–18 years). Secondary vocational schools, in addition to upper secondary vocational education, also provide post-secondary and higher vocational education programmes. Studies in secondary vocational schools last between 2 and 5 years. Arts education is provided by conservatoires, which are a specific type of school providing higher vocational education in addition to lower and upper secondary education. Secondary sports schools are aimed at preparing pupils with sporting talent, and schools of the arts industry provide pupils with a comprehensive artistic education focusing on art and design.

Education is compulsory for children in **Wales** from the ages of 5 to 16, although most children begin school earlier, starting in nursery at age 3 or in reception at age 4. The Welsh education system is made up of primary and secondary phases, followed by optional post-16 pathways.

until age 11. It includes nursery, reception, and Years 1 to 6. All children are entitled to free primary education in a maintained school setting. Secondary education covers the age range 11 to 16, spanning Years 7 to 11. During this phase, learners follow a broad curriculum and usually complete a range of qualifications by the end of Year 11, including

GCSEs and vocational awards. Compulsory education ends at 16, but

many young people continue into post-16 education.

Primary education in **Wales** typically begins at age 3 and continues

After the age of 16, students may choose to stay in full-time education in a school sixth form or further education college, where they can pursue academic qualifications such as A-levels, or vocational qualifications like BTECs or the Welsh Baccalaureate. Others may opt for apprenticeships or employment-based training programmes.

Primary Curriculum and Digital Technologies and Al

Slovakia currently has 2 educational programmes in force, which are two-levelled: the state and school curricula. The two-levelled model of education gives each school the possibility to develop its educational content through the school curriculum according to specific regional and local conditions and requirements based on the needs of pupils or parents.

Wales has a national curriculum for primary education known as the Curriculum for **Wales**. Introduced in 2022, it applies to all learners aged 3 to 16 and provides a single, national framework across both primary and secondary phases. The curriculum gives schools greater flexibility to design learning that meets the needs of their pupils while working towards four key purposes—helping learners become ambitious, capable learners, enterprising, creative contributors, ethical, informed citizens, and healthy, confident individuals.

SLOVAKIA

Primary Curriculum and Digital Technologies and Al (continued)

(1) The curriculum (2015) is divided in two levels, **primary** education lasts 4 years and **lower secondary education** lasts 5 years. Curriculum is divided into 8 learning areas, which Language and Communication, Mathematics and Information Work, Man and Nature, Man and Society, Man and Values, Man and the World of Work, Art and Culture, Health and Movement.

(2) The 2023 curriculum is being implemented gradually, with universal adoption in the 2026/2027 school year and its divided in 3 cycles. Primary education consists of the first 2 cycles (5 years in total) and lower secondary education lasts for 4 years (third cycle). The curriculum is divided into 7 educational areas: Language and Communication, Mathematics and Computer Science, Man and Nature, Man and Society, Man and the World of Work, Art and Culture, Health and Movement.

The educational areas are subdivided into individual subjects within the national curriculum

In the National Educational Program (2023), digital literacy is defined as a separate transversal competence.

The goal of education at the primary school level is to develop digital literacy in pupils so that by the end of the third cycle, they are able to:

- confidently, critically, and responsibly use digital technologies for learning, work, and participation in societal activities,
- engage in interactions with digital technologies using information and data, communicating, collaborating, and using media,
- create digital content (including programming),
- use digital technologies safely (including digital well-being and cybersecurity),
- respect intellectual property,
- solve problems and think critically.

Digital literacy is further defined in the National Curriculum in three frameworks – attitudinal, content, and procedural.

Defined competencies are developed in components:

- Information and data literacy
- Communication and collaboration
- Creation of digital content
- Safety
- Problem-solving

WALES

The curriculum is designed to be flexible, future-focused, and responsive to emerging technologies, including AI.

Digital Competence is one of the three cross-curricular responsibilities, alongside literacy and numeracy. It is intended to be developed across all Areas of Learning and Experience and includes understanding the implications of technology on society—this naturally creates space for learning about AI.

Within the Science and Technology Area of Learning and Experience, learners are encouraged to explore data, computational thinking, and the ethical use of technology. These are foundational concepts that align well with understanding Artificial Intelligence and its role in modern life.

While AI is not named specifically, schools can choose to include AI-related learning as part of digital competence, computer science, or broader discussions about the ethical and societal implications of technology.

Although Artificial Intelligence is not explicitly mentioned in the national guidance, the structure and intent of the Curriculum for Wales support its inclusion within local curriculum design.

SLOVAKIA WALES

Primary Curriculum and Digital Technologies and Al (continued)

The **national curriculum (state educational program)** emphasises that the education system must prepare students for the demands of the 21st century, where **digital literacy** is as fundamental as traditional literacy. The curriculum focuses on teaching the use of technology but also on fostering a critical approach to how technology is used in society, emphasising ethical considerations, digital security, and responsible participation in the digital world.

Slovakia integrates digital technologies across various subject areas as part of its broader educational goals. These technologies are not only included in subjects that explicitly deal with technology and informatics but also embedded throughout other disciplines.

Informatics and Technology Education

In **informatics** and related subjects, digital technology is explicitly taught. Pupils develop skills in: **Using digital tools** for academic and personal tasks; **Understanding and applying coding and programming concepts; Digital problem-solving** – Preparing pupils to address issues in the digital world, ranging from data analysis to application development.

Integration Across Subjects: Digital technologies are not confined to one specific subject but are woven into many where pupils might work with data, use digital tools for creating graphs, or explore technology's role in scientific discovery. Where pupils use digital platforms for communication, research, and collaboration, and may also engage in learning languages through technology. Finally, when engaging with Arts and Culture pupils might integrate digital tools in creative endeavors, including digital art, music, or design, and the use of technology in the cultural sector.

A revision of the national curriculum will be taking place in 2025.

While at present, there no explicit reference to AI in the either primary curriculum, there is an explicit reference to AI in the national curriculum in following standards:

Informatics - in 3. cycle (6. - 9. grades)

Component: Technology
Thematic unit: Digital society

Content standard: Artificial Intelligence and its possibilities/limitations

Human, and society – in 3. cycle (6. – 9. grades)

Component: Civic

Thematic unit: Critical approach to media content

Content standard: Artificial Intelligence

Human and the world of work - 2. cycle (4. - 5. grades)

Component: Technology

Thematic unit: Exploring Traditional and Modern Technological Environments

Content standard: Artificial Intelligence

SLOVAKIA

Post-Primary Curriculum and Digital Technologies and Al

There is a national curriculum for every type of secondary school. There are schools with general education, 4- and 5-year **grammar schools** > and 8-year **grammar schools** >. Then there are educational programs also for schools with vocational training and art schools, conservatories. Schools have autonomy to design and plan their approach to a curriculum that suits their school context and students best, through the school curriculum which must be based on the national curriculum.

Slovakia's National Digital Skills Strategy and Action Plan for 2023–2026 outlines objectives to enhance digital skills among young people and educators. The strategy emphasises the development of digital competencies at all educational levels, aiming to prepare students for future labour market needs. It includes measures to increase the number of ICT specialists and reduce digital exclusion.

While AI is not explicitly mentioned in **Slovakia**'s secondary school curricula, digital technology is integrated into education through strategic planning, curriculum development, teacher training, and national initiatives.

In the curriculum itself, especially Informatics covers thematic unit: Information Society – Digital Technologies in Society.

WALES

Wales has a national curriculum for post-primary education. The Curriculum for **Wales**, introduced from 2022, applies to all learners aged 3 to 16, including those in secondary education (Years 7 to 11). It provides a single national framework that schools use to design a broad and balanced curriculum, aimed at supporting four purposes: to develop learners who are ambitious, enterprising, ethical, and healthy.

For learners aged 14 to 16, the curriculum includes preparation for a range of qualifications, such as GCSEs and vocational awards. While the Curriculum for **Wales** ends formally at age 16, post-16 education (Years 12 and 13) is supported by national frameworks and qualifications guidance provided by Qualifications **Wales** and the **Welsh** Government. Post-16 learners typically follow academic or vocational pathways—such as A-levels, BTECs, or the **Welsh** Baccalaureate—in school sixth forms, further education colleges, or work-based learning settings.

Although the post-16 phase is not part of the Curriculum for **Wales** itself, it is governed and supported at a national level to ensure coherence, progression, and equitable opportunities across the country.

Within the Curriculum for **Wales** (ages 3–16), Digital Competence is a statutory cross-curricular responsibility, meaning learners in secondary education are expected to develop digital skills across all subjects. The curriculum promotes confident, critical, and ethical use of digital tools for communication, problem-solving, data handling, and content creation. In the Science and Technology Area of Learning and Experience, learners also explore digital systems and computational thinking. Beyond age 16, digital technology remains integral, with Qualifications **Wales** embedding digital skills in post-16 qualifications such as A-levels, BTECs, and the **Welsh** Baccalaureate.

There is no specific reference to AI in the post-primary curriculum.

	SLOVAKIA	WALES
Funding to support Digital Technologies and access to devices for students	 There are a number of funding options for schools (elementary and high schools) to buy digital resources: Schools receive per capita financing from the government; part of this budget is allocated to (digital) resources. Schools have autonomy. National projects edIT – in 2023 investment of 33mil € into digital equipment. Investment was pre-programmed, little autonomy. RRF funding – project DigiEDU – 225mil € budget, investment into digital equipment, school networks, internet. Investment was pre-programmed, little autonomy. Project funding – various smaller projects schools can apply for. The ministry has published "Standards for digital equipment" where the expected level of digital infrastructure of schools is described. No, there is no 1-1 device policy in Slovakia. Some private schools use personal devices. The use of personal devices is restricted by law as of January 1st 2025 (mainly smartphones). Some schools received devices to establish "study rooms" in their schools, where pupils will have access to devices and internet 	Digital funding in Wales supports the national Hwb programme and the broader digital learning agenda. All maintained schools receive centrally funded access to digital tools and resources via Hwb, including platforms like Microsoft 365 and Google for Education. In recent years, additional grants have been provided to improve infrastructure, devices, and staff training. Schools have autonomy in how they use digital funding, particularly through their delegated budgets, and can align spending with their local priorities. Schools are expected to embed digital competence across the curriculum and reflect digital goals in their wider school development planning. Additional project-based funding is also available through Welsh Government initiatives and local authorities While the Welsh Government has invested over £190 million through the Hwb EdTech programme to improve access to digital devices, not every student has a personal device for use at all times. Local authorities work with schools to assess needs and allocate resources effectively, ensuring that devices are available as required. A £200 million framework helps councils access costeffective devices. Schools have autonomy in managing digital resources, aiming to provide equitable access to technology, even if
Approved Models of Al	There is currently no approved Al model for schools	students don't always have personal devices. There is currently no approved Al model for use in Welsh primary/ post-primary schools

Appendix Two: Laws, policies and guidelines

Table 1: Belgium [Flanders] and Ireland

BELGIUM [FLANDERS]

Flemisch Al Strategy for employees of the Flemish government:

https://assets.vlaanderen.be/image/upload/v1708532045/principedocument_-_210224bis_ntcxb8.pdf >

There are 6 guiding principles to the use of AI which include democratic, reliable, human-orientated, correct use and management of data, sustainability and applied with expert knowledge below and which are embodied in the this slogan:

"Al within governments in Flanders is democratic, reliable, people-oriented and sustainable, with correct use and management of data and applied with expert knowledge."

The Flemish government is allocating 32 million euros over several years to propel Flanders to the forefront of Artificial Intelligence (AI). This plan: **Flanders Artificial Intelligence Policy Plan | Artificial Intelligence >** focuses on three key areas: advancing research, promoting AI applications in industry, and establishing supportive policies. The aim is to leverage Flanders' strengths and adopt leading AI technologies. The plan includes strengthening research excellence, fostering AI applications in businesses through knowledge sharing, and promoting education and ethical awareness through training initiatives and an AI Think Tank. The budget was renewed in March 2024.

Read more: Broad context | Departement EWI (ewi-vlaanderen.be) >

Here you can find an infographic about guidelines for the use of public accessible gen Al:

https://assets.vlaanderen.be/image/upload/v1709554566/AI-Richtlijnen_VO_02_1_tpya3r.pdf >

IRELAND

Ireland's National AI strategy, **Irelands National Artificial Intelligence Strategy for Ireland:**

AI – Here for Good >. was launched in July 2021. The strategy provides a high-level direction to the design, development and adoption of AI in Ireland and is divided into eight strands: AI and Society, A Governance Ecosystem that Promotes Trustworthy AI, Driving Adoption of AI in Irish Enterprise, AI Serving the Public, A Strong AI Innovation Ecosystem. AI Education, Skills and Talent, A Supportive and Secure Infrastructure for AI and Implementation of the Strategy.

The strategy sets out how **Ireland** can be an international leader in AI to benefit our economy and society, through a people-centred, ethical approach to its development, adoption and use.

A refresh of the National Al Strategy was published in November 2024 >

This refresh takes account of the significant developments in AI technology and regulation since the original strategy was published. It builds on the solid foundations in place, continuing to emphasise the importance of trustworthy, person-centred AI development and use, while positioning **Ireland** as a leader in seizing AI's economic and societal benefits. It aims to balance innovation with proportionate regulation and trust-building measures.

Highlighted **strategic actions** in this refresh include:

- ensuring Ireland is a leader in the effective implementation of the EU AI Act, including through constructive participation in the EU AI Board and its working groups and rolling out AI standards and certification
- commissioning a landmark study on the potential impacts of AI (including generative AI) and other advanced technologies on key sectors of the Irish economy
- developing a national campaign to raise awareness among SMEs of the benefits of AI adoption and the supports available

IRELAND (continued)

- establishing an AI regulatory sandbox to foster innovation in AI
- creating a National Al Research Nexus with a unified identity
- continuing to develop high calibre AI talent through Research Ireland Centres
- creating a safe space where civil and public servants are encouraged to experiment with AI tools
- updating the 2022 study on AI skills of the Expert Group on Future Skills Needs, aligned to the targets set in the EU Digital Decade for skills and female participation
- expanding the range of digital upskilling and reskilling initiatives, including those available via Skillnet Ireland, Springboard+, apprenticeships, and future human capital initiatives
- promoting increased use of and access to advanced AI computing services
- supporting the establishment of infrastructure, including data centres, to underpin rollout of the next waves of AI technologies

LUXEMBOURG

Luxembourg's **strategic vision** for integrating Artificial Intelligence (AI) into its national development emphasises the importance of AI in fostering innovation, economic growth, and societal well-being. The strategy focuses on ethical considerations, ensuring AI developments align with **Luxembourg**'s values and legal frameworks (human-centered AI). Key areas for AI application include healthcare, public administration, and the economy, with an emphasis on education and workforce development to prepare for AI-driven changes. The government commits to supporting research, development, and international collaboration to position **Luxembourg** as a leader in ethical and innovative AI use.

Strategic vision paper >

New national AI strategy (May 2025) >

New national Data strategy (May 2025) >

SCOTLAND

Artificial Intelligence strategy: trustworthy, ethical and inclusive - gov.scot >

Our Strategy marks a new chapter in **Scotland**'s relationship with Artificial Intelligence. It is the result of an extensive consultation and engagement programme involving academia, industry, the public sector and the people of **Scotland** who were generous with their time, contributing ideas, insights and opinion on AI. Their knowledge and expertise have helped to shape the Strategy and we're grateful for the input of everyone who was part of this process. Executive Summary We believe the significance of the Strategy lies in the fact that it looks beyond the technology itself to focus more closely on Al's role in our society. Much of what we take for granted today happens because AI is working behind the scenes, driving change and technological innovation on an unprecedented scale. However, the use and adoption of AI should be on our terms if we are to build trust between the people of **Scotland** and AI. The purpose of this Strategy is to help us realise our vision: Scotland will become a leader in the development and use of trustworthy, ethical and inclusive AI. Our Strategy makes a compelling case for sustained investment in Scotland's AI ecosystem. Our universities, research institutes and tech businesses are worldclass, however in the global race to adopt AI we can't afford to fall behind. Scotland should be a leader in AI technologies and we have identified the actions we'll take to achieve this: These key actions are set out in a detailed roadmap, which confirms immediate and longer-term priorities as the Strategy is launched and rolled out across **Scotland**. We are also introducing the Scottish Al Playbook – an open guide to the principles, practices and actions we will adopt to realise our vision. For the first time, everything you need to know about AI in Scotland can be found in one indispensable digital resource. Our Strategy makes it clear that when it comes to AI, Scotland means business. If you work in Al, are involved in a business that is adopting Al technologies or would like to learn more about the role it plays in our lives, we hope you find our Strategy informative and inspiring.

There is currently no national policy/national law or guidelines on Al.

SLOVENIA

Slovenia has been actively involved in the development and use of Artificial Intelligence (AI) in research organisations and higher education programs for the past 40 years. In the desire to build on research achievements in the field of AI in Slovenia and to become internationally recognised in this field, the government adopted the **National Program for the Promotion of the Development and Use of AI until 2025** > in May 2021. The program represents the foundation for system support, regulation and implementation of all activities related to Artificial Intelligence in the country.

The program is coordinated with the European plan Harmonized plan for Artificial Intelligence, the proposal for the Regulation of the European Parliament and the Council on the establishment of the Program for Digital Europe for the period 2021-2027, which also includes the field of AI, and with the OECD principles on Artificial Intelligence, which promotes Artificial Intelligence, which is trustworthy, respects human rights and democratic values.

The national Artificial Intelligence program is also consistent with the overall **Development Strategy of Slovenia 2030** >, with the key objectives of the **Digital Slovenia 2020 information society development strategy** > and with some of the key objectives of the **Smart Specialization Strategy** >.

The areas of basic and applied AI solutions are financed from the resources of the Public Agency for Research Activity of the Republic of Slovenia. Funds are decreasing from year to year and researchers are practically left to the success of obtaining funds from EU tenders. The field of AI is strongly represented in higher education institutions, especially in the faculties of electrical engineering, computer science and informatics. We are lagging behind in the inclusion of computing and informatics in primary and secondary school programs. Another problem we are facing is staff shortage. Slovenia has many experts working in the fields of machine learning, data science, language technologies, robotics and other fields, but more and more young researchers are going to foreign universities or to the economy. On the other hand, more and more job opportunities are opening up in the field of robotics and in the ICT sector. For this purpose, the AI4SI initiative was created as a connecting link between AI solution providers and companies that want to use it in their work. We are also proud of a new International Research Center on Artificial Intelligence under the auspices of UNESCO, based in Ljubljana. The aim of establishing the Center for Artificial Intelligence is to stimulate research, technology development and innovation in this field at the international level.

SWEDEN

There is currently no national policy for Al. However, there are examples of policy documents expressing high ambitions regarding **Sweden**'s digital transformation and the importance of Al as it relates to higher education, research and innovation.

The Swedish government has set up a national Al commission to promote competitiveness and the safe use of Al.

There are several national networks related to AI, for example "The Swedish AI Agenda", with 25 proposals on an accelerated adoption of AI, involving participants from academia, the public sector and the private sector. The proposals relate to infrastructure, civil society, industry, research and education.

SWITZERLAND

In 2020, the federal government has developed **guidelines for the use of AI in the federal administration**.

The guideline should provide a general frame of reference for federal agencies and external partners entrusted with governmental tasks. The guidelines must be adhered to in the following specific contexts:

- When developing sectoral AI strategies;
- When introducing or adapting specific, sectoral regulations;
- When developing and using Al systems within the Federal Administration;
- When helping to shape the international regulatory framework on Al.

Source: https://www.sbfi.admin.ch/sbfi/en/home/eri-policy/eri-21-24/cross-cutting-themes/digitalisation-eri/artificial-intelligence.html >

So far, there is no particular regulation on Al. In February 2025, the federal government decided to refrain in general from a cross-sectoral regulatory framework. Al-linked issues should be regulated in sector-specific laws. Only Al-linked issues that touch fundamental rights should be regulated in cross-sectoral, yet not Al-specific, laws. In that regard, the federal government decided to ratify the Council of Europe framework convention. A project to check what regulatory changes are necessary in Swiss law and what non-regulatory measures are required is underway.

THE NETHERLANDS

The Dutch government has presented a vision on generative AI to emphasise the urgent need for action. The vision can be found on the following page:

Dutch government presents vision on generative Al | News item | Government.nl > Dutch vision

WALES

This summary looks at the **Welsh Government's Policy and Strategy Response** (February 2025) to the **UK Government's AI Opportunities Action Plan** (January 2025):

Wales has established its own AI framework within the broader UK national strategy. While the UK government focuses on positioning Britain as an "AI superpower" through massive infrastructure investment and frontier AI development, **Wales** focuses on a values-based approach centred on ethical implementation, inclusivity, and public transparency. These guiding principles ensure AI aligns with Welsh values, delivering benefits inclusively while maintaining transparency and accountability.

Both governments recognise Al's transformative potential for public services. The UK government, which has legislative responsibility in this area, has established an ambitious "Scan, Pilot, Scale" methodology with dedicated AI leads across government missions, **Wales** has taken a targeted sectoral approach such as education-specific guidance, training and evidence gathering and evaluation by the inspectorate ESTYN.

The Welsh approach leverages partnerships with specialist organisations like the Centre for Digital Public Services and The Alan Turing Institute to build Al literacy. **Wales** has also adopted the Algorithmic Transparency Reporting Standard for government Al systems, complementing the UK government's emphasis on transparency in its national approach.

Wales' approach is a regionally-tailored implementation that prioritises ethical frameworks and citizen benefits within the broader UK national strategy of establishing global AI leadership.

Table 2: National Laws/Policies/Guidelines on AI in Education

BELGIUM [FLANDERS]

Here you can find the opinion text about responsible AI in education >

We highlight the most important topics:

- Responsible AI in education is crucial for ensuring positive outcomes and ethical practices. The 7 basic conditions that must be met:
- **The learning process of the learner is paramount:** Responsible AI prioritises the learner's learning process. It considers pedagogical, didactic, and social-emotional aspects. All stakeholders (teachers, learners, parents) play a role in shaping the learning process.
- Al is not an end in itself: Al should serve educational goals and add value. It's not an end in itself.
- Al applications in education are trustworthy:
- **Human Autonomy and Control:** Al respects fundamental rights and human actions.
- **Transparency:** Al systems should be traceable and explainable.
- **Diversity and Non-Discrimination:** Al should be accessible to all, regardless of age, gender, or abilities.
- **Social and Environmental Well-Being:** Consider sustainability, social impact, and democracy.
- Privacy and Data Management: Respect privacy, data quality, and integrity.
- Technical Robustness and Safety: Ensure resilience, security, accuracy, and reliability.
- **Accountability:** Minimise negative consequences and provide transparency.
- Al applications in education are based on shared values: Al applications in education should align with values like quality education, teacher autonomy, and user privacy. A value framework helps communicate impact.
- **Responsible AI is a continuous process:** Responsible AI is continuous. Education, developers, and policymakers must collaborate to apply moral and ethical principles.
- **Education has a support network that is Al-ready and Al-resilient:** Education needs a resilient network for sharing knowledge and resources related to Al.

Professionalisation and responsible AI go hand in hand: Teachers, employees, and learners need digital literacy to navigate AI effectively. Balancing technology's possibilities and potential negative effects is essential. Responsible AI requires collective effort from education, developers, and policymakers.

Here > you can find some **ethical guidelines** concerning Al.

Here > you can find some **guiding questions** to decide on Al-programmes.

Next to this, we started some new initiatives regarding AI in Flanders:

- We are funding bootcamps on AI and XR for school leaderships teams on how to make a good school
 policy for implementing new technologies (more information can be found here >
- We are organising a learning network on responsible AI in education for key stakeholders on the macro level in education.
- We are starting a monitoring research on the usage and prevelance of AI in Flemish Education institutions
- We are starting an analysis of relevant legislation for AI in education.
- We are starting a multi country DG Reform project on Al in education (more information: <u>Technical</u> <u>Support Instrument ></u>)
- Schools are informed through a dedicated website >
- Al Learning resources are shared through KlasCement and Het Archief voor Onderwijs
 Themapagina Al op KlasCement >
- Edubox AI is an initiative of public broadcaster VRT in collaboration with relevant stakeholders.
 The existing toolbox was updated >

IRELAND

The refreshed Al Strategy **refresh of the National Al Strategy** continues to have a dedicated strand to Al education, skills and talent. An updated strategic action from this refreshed strategy includes a commitment to develop guidelines on the use of Al for teachers and school leaders, building on guidelines published by the European Commission and to consider the appropriate integration into curricula of Al and Al literacy.

Irelands Al Advisory Council published an **advice paper on Al and Education** in February 2025. The Al Advisory Council is particularly supportive of the following principles for the use of Al in education

- Al tools to be used by students should be private, secure, and free to use for all teachers/ instructors and students.
- Data which is generated while using these tools in an education setting should not be used for training AI models, and hence there should be no risk of data or documents being leaked.
- The use of AI tools in educational settings should be inclusive, equitable, designed for accessibility and thus usable by all instructors and learners.

The Al Advisory Council recommends:

- 1. Government should create and publish coordinated and consistent guidelines for the use of generative AI when it is to be used, at appropriate education levels that harmonise with each other, while ensuring these guidelines remain "live documents" that can be quickly updated as AI technology evolves. These should cover both principles and use cases in order to ensure the safe, ethical and responsible use of AI.
 - (The Department of Education and Youth published the first version of **Guidance on Artifical Intelligence in Schools** > in October 2025. This guidance document provides a background and context on AI in teaching and learning and information on the opportunities and risks associated with its use. It also highlights relevant factors and suitable resources to inform schools and support teachers in planning for the possible use of AI in teaching and learning and supports good decision making around AI tools and practice.)
- **2.** Government should lead the development and implementation of AI literacy training for educators across all educational levels which should focus on equipping teachers with fundamental AI knowledge, preparing them to further spread this knowledge. This should form a core part of professional development programmes for educators.
- **3.** Government should facilitate a national conversation between teachers and their unions/ representative organisations, parents/guardians and their representative organisations, policymakers, technology companies, students and their representative organisations, and educational technology innovators once the various Al guidelines are published, to create a more stable and directed approach to leveraging Al in education and monitor and evaluate the impact of the use of generative Al by students in education.

LUXEMBOURG

National media competence framework including AI and data literacy >

The "Medienkompass >" is a comprehensive guide aimed at integrating media competence, including data and AI literacy, into educational settings in Luxembourg. It defines AI and data literacy, emphasising the need for critical evaluation, effective communication, and responsible use of AI technologies. The guide outlines specific competencies across different educational levels, offering practical examples and suggesting ways to implement these skills in the classroom. It stresses the importance of preparing students to navigate and shape the digital world ethically and knowledgeably, incorporating AI and data literacy into the broader framework of media education. This strategic approach ensures that learners are equipped with the necessary tools to critically engage with digital technologies, understand the underlying principles of AI, manage data effectively, and participate responsibly in a digitally driven society.

April 2025: Establishment of a interinstitutional national steering committee on AI in education (**September 2025:** AI in education strategy expected

SCOTLAND

Artificial Intelligence strategy: trustworthy, ethical and inclusive – gov.scot (**www.gov.scot**) pg 32 2.11 We will lead a skills plan to ensure everyone has access to AI learning opportunities in our education system and improve the way businesses use, develop and adopt AI.

The Scottish Government have committed to producing guidance for schools and teachers on AI and this is being developed at the moment.

SLOVAKIA

Currently no national guidelines on AI in Education are available

SLOVENIA

Slovenia has undertaken several initiatives and established frameworks to promote the use of Artificial Intelligence (AI) in education, ensuring that digitalisation supports learning and teaching in meaningful ways.

Frameworks:

Digitalizacija družbe | GOV.SI > Nacionalni_program_za_UI_do_2025.pdf >

Projects

- Al4T project Al for teachers >
- PUMICE >
- Javni razpis Razvojni projekt Uporaba generativne umetne inteligence za in v izobraževanju (gov.si >)
- KOBI >

Indirektni projekti:

- B-RIN >
- IP 5.0 >

SLOVENIA (continued)

KATARINA (The KATARINA project, led by the University of Ljubljana's Faculty of Computer Science and Informatics, aims to equip secondary school students with foundational knowledge in computer science and informatics. The project collaborates with ten secondary schools and several external partners.)

We would also like to mention the Slovenian project Povejmo.si > which is a national initiative to build a large language model for the Slovenian language during 2024 and 2025. Researchers aim to collect around 40 billion words from written and spoken Slovenian texts. The project invites individuals and organisations to contribute data, supporting the development of a safe, high-quality, and openly accessible Slovenian Al. This effort is a key step toward strengthening digital sovereignty and language technologies in Slovenia.

SWEDEN

Due to the decentralised nature of our educational system, there is no national law or policy on Al in education.

SWITZERLAND

Since the Swiss educational system at the primary and lower secondary level is regulated at the cantonal level, the 2020 **federal administration's sector-specific analysis** does not apply to a large part of the educational system.

Some cantonal administrations (they organise lower tertiary education, except VET) have published general guidelines on AI in education. Examples (non-exhaustive) are:

- Canton of Zurich >
- Canton of St. Gallen >
- Canton de Vaud >

Some municipalities (they run schools in compulsory education) publish their own guidelines for AI in education, **Gemeinde Steinhausen** >

The umbrella organisation of teachers in **Switzerland** also published a **position paper on AI in education** >.

There is a **guideline based on best practice experiences** from an innovation sandbox run by the canton of Zurich.

The federal state and the Swiss cantons also run a number of specialised agencies in education that have published material on AI in education:

- Education 21 >: Focuses on AI in education and sustainable development
- Educa >: Focuses on systemic questions regarding AI in education

THE NETHERLANDS

There is no national policy on AI in education yet in the Netherlands, but there are developments that could eventually lead to national policy, such as the formulation of national educational goals for digital literacy mentioned in the first section of this form.

At the time of writing there are no specific laws or policies in the Netherlands that exclusively deal with Artificial Intelligence in education. However, there are laws that may apply to the use of technology and data in educational context, such as General Data Protection Regulation.

WALES

A joint call-for-evidence from Welsh Government and ESTYN has recently closed. Follow-up visits from a special team of inspectors to various schools who have responded will lead to a thematic overview and identified ways forward for the sector including in the curriculum space.

Curriculum for **Wales** is designed to be flexible, future-focused, and responsive to emerging technologies, including AI.

Digital Competence is one of the three cross-curricular responsibilities, alongside literacy and numeracy. It is intended to be developed across all Areas of Learning and Experience and includes understanding the implications of technology on society—this naturally creates space for learning about AI.

The Curriculum for **Wales** Framework gives schools the freedom to design and plan their own curriculum based on the needs and interests of their learners. This means that while AI is not named specifically at present, schools can choose to include AI-related learning as part of digital competence, computer science, or broader discussions about the ethical and societal implications of technology.

The Schools as Learning Organisations guidance, coupled with GDPR guidance and Keeping Safe Online support, also gives schools a vehicle to enquire into effective, safe and ethical use of AI both in teaching and learning and in school administrative functions.

