



DIGITALLI

DIGITAL STRATEGIES
FOR LIFELONG
LEARNING INSTITUTIONS

Digitalli TOOLKIT FOR LIFELONG LEARNING INSTITUTIONS

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Introduction to the DIGITALLI Toolkit

About the Project

In an era where digitalisation and artificial intelligence (AI) are reshaping the educational landscape, lifelong learning institutions must evolve to remain relevant, inclusive, and effective. The Erasmus+ KA220 project “DIGITALLI – Digital Strategies for Lifelong Learning Institutions” responds to this transformative challenge with a bold mission: to build the capacity of adult education providers and lifelong learning institutions across Europe to embrace digital transformation and embed AI-enhanced strategies into their operational, educational, and strategic frameworks.

The DIGITALLI project runs from December 2024 to November 2026 and unites five partner organisations from Austria, Cyprus, Slovenia, Ireland, and Greece. The consortium is led by Meta4 Innovations (AT), with active contributions from the University of Nicosia (CY), CIK Trebnje (SI), The Rural Hub (IE), and CARDET360 (GR). Each partner brings deep expertise in education, digital innovation, and community engagement, forming a robust collaborative foundation.

Purpose of the Toolkit

The DIGITALLI Toolkit is a flagship output of the project. It is a comprehensive, modular, and interactive resource designed to support lifelong learning institutions in creating and implementing digital transformation action plans that are ethically, strategically, and technologically sound.

Specifically, the Toolkit aims to:

1. Raise awareness of the strategic implications of digitalisation and AI in adult education.
2. Build institutional readiness by aligning practices with EU frameworks (DigCompOrg, DigCompEdu, TPACK).
3. Provide user-friendly templates, assessment tools, and guides for AI integration in teaching and administration.
4. Promote inclusive, ethical, and human-centric approaches to digital transformation.
5. Foster peer learning, innovation, and co-creation among education providers across Europe.

Target Groups and Relevance

The Toolkit targets a wide array of stakeholders within the adult education ecosystem:

1. Institutional Leaders and Administrators seek to align their strategic vision with digital demands.

2. Adult Educators and Trainers need practical, AI-enabled teaching tools and models.
3. Educational Technology Developers aim to innovate in collaboration with learning providers.
4. Policy Makers and Stakeholders engaged in shaping the future of adult education.

With Europe facing a growing skills mismatch and low digital readiness among adults, the DIGITALLI Toolkit is both timely and necessary. DESI (2022) states that over 50% of EU adults lack basic digital skills. Simultaneously, AI adoption is accelerating, outpacing the readiness of educators and institutions. This Toolkit serves as a bridge between current institutional capacities and future demands.

Structure of the Toolkit

What will you find in this Toolkit?

The Toolkit is structured into three main sections, each serving a distinct purpose in guiding lifelong learning institutions through the process of digital transformation. **Section 1: Introduction and Orientation** establishes the foundation, beginning with the *Purpose of the Toolkit*, which outlines its strategic intent to support AI-integrated digital evolution in adult education. This is followed by *Instructions for Use*, providing a clear roadmap for navigating the Toolkit's structure and components, and a *Glossary of Terms*, ensuring a common understanding of key terminology across all users.

Section 2: The 4-Aspect Model of Digital Transformation presents the Toolkit's core conceptual framework. It introduces a multidimensional approach to digital change, organised around four essential aspects: *Human Capital*, which focuses on professional development, leadership, and digital competencies; *Integration of Technology*, which explores pedagogical models, technology selection, and lesson planning; *Infrastructure*, covering connectivity, devices, LMSs, cybersecurity, and inclusive design; and *Research and Development*, which emphasises innovation, continuous improvement, and evaluative strategies. Each aspect is supported by practical tools, checklists, and case studies to help with the implementation processes.

Section 3: Tools and Case Studies offers a curated collection of resources to support practical application. This includes a *Digital and AI Tools Collection* featuring 12 general-purpose digital tools and 6 AI-based solutions, complete with tutorials and usability guidance. Additionally, the section presents two real-life *Case Studies* that exemplify successful digital transformation in adult education contexts, providing insight, inspiration, and transferable practices for users of the Toolkit.

Section 4: Action Plan Development and Implementation

The final core section of the DIGITALLI Toolkit offers a practical roadmap for developing and implementing digital transformation strategies within lifelong learning institutions. This section guides users through key steps such as setting a vision and goals, using tools like the SELFIE self-assessment,

mapping stakeholders, planning timelines and milestones, managing risks, and designing an evaluation and impact assessment framework.

To support each stage of the process, a curated list of digital and AI tools is provided—ranging from general use platforms like Mentimeter to AI-driven applications such as ChatGPT. Each tool is presented with a clear description, purpose, benefits, limitations, and links to tutorials. This structured yet flexible approach empowers institutions to build customised, actionable plans grounded in real-world tools and aligned with their unique needs.

Usage Instructions

The DIGITALI Toolkit is designed to be modular, allowing institutions the flexibility to either engage with the entire resource or focus on individual sections that are most relevant to their specific needs and contexts. It is interactive, offering templates and editable resources that enable practical application and adaptation. Furthermore, the Toolkit is highly customisable, supporting localisation and translation efforts coordinated by the project's partner institutions. Ensuring broad accessibility, it adheres to the Web Content Accessibility Guidelines (WCAG) 2.0 and is available under a Creative Commons BY-NC-SA license. Institutions are encouraged to establish local working groups to collaboratively implement the Toolkit, fostering meaningful engagement among both educators and decision-makers, and driving systemic, not superficial, digital transformation.

Theoretical Background

In an increasingly digital world, educational institutions face the challenge of adapting to rapid technological change. Digital transformation is no longer a peripheral concern—it has become central to the mission of educational equity, quality, and innovation. However, digital transformation is not a singular event or a one-size-fits-all solution; rather, it is a continuous, systemic process that must be approached strategically and holistically. To support this endeavour, the 4-Aspect Model of Digital Transformation provides a comprehensive conceptual framework designed to guide educational institutions through the complex terrain of digital change.

This model emerges from the recognition that effective digital transformation depends on the interplay of multiple dimensions within an educational ecosystem. While the integration of technology is often the most visible component, other aspects have to be taken into account as well. The 4-Aspect Model thus presents a multidimensional approach, organised around four interdependent and equally essential aspects: Human Capital, Integration of Technology, Infrastructure, and Research and Development

The 4-Aspect Model of Digital Transformation is based on established academic frameworks that identify and interrelate key dimensions of digital processes in education. Various sources in the literature support the model's four aspects – both conceptually and empirically: The European Framework for the Digital

Competence of Educators (DigCompEdu) supports the model's focus on Human Capital and Integration of Technology, emphasising educators' digital competencies, the pedagogical use of technology, and the importance of ongoing professional development (Redecker, 2017). The OECD's Digital Education Outlook reinforces all four aspects of the model, with particular attention to Infrastructure, Research and Development, and strategic leadership. It advocates a systemic, evidence-based approach to digital transformation, underlining the importance of innovation, equity, and institutional readiness (OECD, 2021). Similarly, Michael Fullan's Framework for Educational Change contributes to the model's emphasis on Human Capital and Research and Development by underscoring the roles of leadership, collaboration, and continuous innovation as key drivers of meaningful and sustainable educational change (Fullan, 2013). Taken together, these frameworks provide a robust theoretical foundation for the 4-Aspect Model, supporting its comprehensive and interconnected approach to digital transformation in education.

Together, the four aspects Human Capital, Integration of Technology, Infrastructure, and Research and Development offer a structured yet flexible model that captures the full scope of digital transformation. The 4-Aspect Model acknowledges that successful change depends on both human and technical capacity, and that progress in one area often reinforces and enables advances in others. Within this Toolkit, each aspect is accompanied by practical tools, implementation checklists, and real-world case studies, enabling educators and leaders to translate theory into action.

By embracing this comprehensive approach, educational institutions can move beyond isolated initiatives toward coherent, strategic transformation.

The Four Aspects

Aspect 1: Human Capital

A successful digital transformation in adult education institutions begins with people. Human capital—the combined knowledge, skills, and motivation of staff and learners—is at the heart of implementing sustainable, inclusive, and impactful change. In the context of lifelong learning institutions, human capital encompasses not only educators and administrative staff, but also the adult learners who engage with new tools, adapt to change, and shape the learning environment. For the DIGITALLI project, strengthening human capital is not just about using digital tools—it's about empowering individuals and institutions to lead digital innovation with confidence, competence, and care. This section addresses how to assess digital competences, support professional development, and foster leadership for digital transformation in lifelong learning institutions.

1. Assessing Digital Competences

1.1 Existing Tools

Before initiating a digital transformation strategy, institutions must understand the current digital capabilities of their educators, staff, and learners. A range of tools exists for this purpose:

- **Europass Digital Skills:** Offers a self-assessment tool that helps users evaluate their digital proficiency across five competence areas aligned with the DigComp framework. <https://europa.eu/europass/en/self-assessment>
- **DigCompEdu Check-In:** Specifically designed for educators, this self-reflection tool helps assess digital pedagogical skills across six dimensions. It provides immediate feedback and tailored recommendations. <https://ec.europa.eu/jrc/en/digcompedu>
- **SELFIE Tool:** A free EU-supported tool for schools and adult education institutions to assess digital readiness. It gathers anonymous input from learners, teachers, and school leaders. <https://education.ec.europa.eu/selfie>

These tools provide baseline insights and can inform the creation of targeted training plans.

2. Professional Development for Digital Readiness

Developing digital capacity requires more than tools—it requires time, commitment, and structured professional development. Institutions can support their staff through a combination of formal and informal learning strategies. Supporting growth through meaningful professional development means cultivating a culture of continuous learning, where digital competence is built and sustained across all roles in the institution.

2.1 Structured Training Programs

Structured training programs form the backbone of digital upskilling. These can include short courses on core topics such as digital content creation, data privacy, digital pedagogy, and AI literacy. Many adult education providers already use modular formats, combining short self-paced e-learning units with live workshops or coaching sessions.

- **Modular Learning Paths:** To equip learners with essential digital skills, training programs should be designed in engaging ways, focusing on critical areas like online facilitation, digital content creation, data privacy, and AI literacy. The courses should be interactive and practical, ensuring participants gain hands-on experience. To encourage involvement and recognise achievements, micro-credentials or digital badges could be awarded upon completion, giving learners tangible proof of their new expertise and motivating continued participation. This approach not only builds critical competencies but also fosters a culture of continuous learning and professional growth.
- **Blended Formats:** To create a dynamic and effective learning experience, the training program should blend self-paced e-learning with interactive hands-on workshops. For instance, learners could begin by completing an online course to build foundational knowledge at their own pace. Following this, they could participate in a local workshop where they apply their learning in a collaborative setting, reinforcing key concepts through practice and discussion. This blended approach ensures flexibility while also fostering deeper engagement and real-world skill development. By combining digital convenience with in-person interaction, the program accommodates diverse learning styles and maximises knowledge retention.
- **Accredited Learning:** To further enhance professional development and validate acquired competencies, staff should be encouraged to pursue recognised certifications through national and international programs. For example, they could enrol in accredited courses or participate in *Erasmus+ mobility programs* with a digital focus.

These opportunities not only provide formal recognition of skills but also expose learners to broader European expertise and networking opportunities.

2.2 Peer Mentoring

To enhance impact, training can also be supported by peer mentoring structures as well as creating opportunities where novice and expert educators plan and deliver lessons together, offering rich opportunities for on-the-job learning.

- **Digital Mentors:** To foster a culture of collaborative learning and smooth digital adoption, organisations should identify and empower digitally skilled employees to take on "digital mentor" roles. These internal experts could provide peer-to-peer guidance, troubleshoot common challenges, and model effective use of tools in day-to-day workflows.
- **Buddy Systems:** To ease the transition into digital teaching, a buddy system could be implemented, pairing tech-savvy educators with colleagues who are newer to digital tools. This approach emphasises peer-driven, low-pressure learning, where experienced mentors provide hands-on guidance, troubleshoot challenges, and share practical strategies in an informal setting.
- **Co-teaching Models:** To foster collaborative skill-building and innovation in digital teaching, co-teaching models should be introduced, pairing novice and expert educators to jointly design and deliver lessons. This hands-on approach transforms professional development into a shared journey, where mentors model best practices, while newcomers contribute fresh perspectives, creating a dynamic environment for experimentation.

2.3 Learning Communities

Learning communities can further strengthen professional development by creating safe spaces—virtual or in person—where staff is encouraged to regularly share ideas, tools, and experiences. Crucially, these initiatives should be inclusive, allowing educators with varying levels of confidence and experience to participate fully.

- **Online Learning Circles:** Creation of Online learning circles will enable small groups of educators to meet regularly for peer-led discussions, hands-on tool testing, and collective problem-solving. These circles will foster continuous improvement through shared experiences and reflective practice in a supportive, collaborative environment.

- **Thematic Communities of Practice:** Creating institutional forums for bringing together educators to collaborate on focused topics like AI integration or inclusive digital pedagogy would enable knowledge-sharing, resource development, and collective problem-solving around emerging challenges in adult education
- **Internal Knowledge Hubs:** A centralised knowledge hub should be developed using existing platforms like MS Teams or Moodle to systematically organise and share digital teaching resources, best practices, and troubleshooting guides. This would empower all educators to access reviewed materials, contribute their own expertise, and continuously improve their digital teaching strategies through collaborative curation.

3. Leadership for Digital Transformation

Leadership plays a decisive role in enabling a culture of innovation, aligning efforts, and managing resistance. Even with the most enthusiastic staff and learners, meaningful digital transformation cannot take root without leadership that is both strategic and supportive. Directors and coordinators must take an active, visible role in leading digital change.

3.1 Roles and Responsibilities

In driving digital transformation, leaders must embrace four key roles. As Strategic Visionaries, they articulate a compelling case for digital change—aligning it with institutional goals and societal impact. As Resource Mobilisers, they secure critical investments in technology, training, and staffing to turn vision into reality. As Policy Advocates, they modernise frameworks around assessment, remote work, and credentialing to enable innovation. Finally, as Role Models, they actively use digital tools — from e-learning platforms to collaborative tech — demonstrating commitment and normalising digital adoption. Together, these responsibilities create the Relevant Resources

- **DigComp Framework:** https://joint-research-centre.ec.europa.eu/digcomp_en
- **DigCompEdu Check-In Tool:** <https://ec.europa.eu/jrc/en/digcompedu>
- **SELFIE for Adult Education:** <https://education.ec.europa.eu/selfie>

Aspect 2: Integration of Technology [The Rural Hub]

Overview

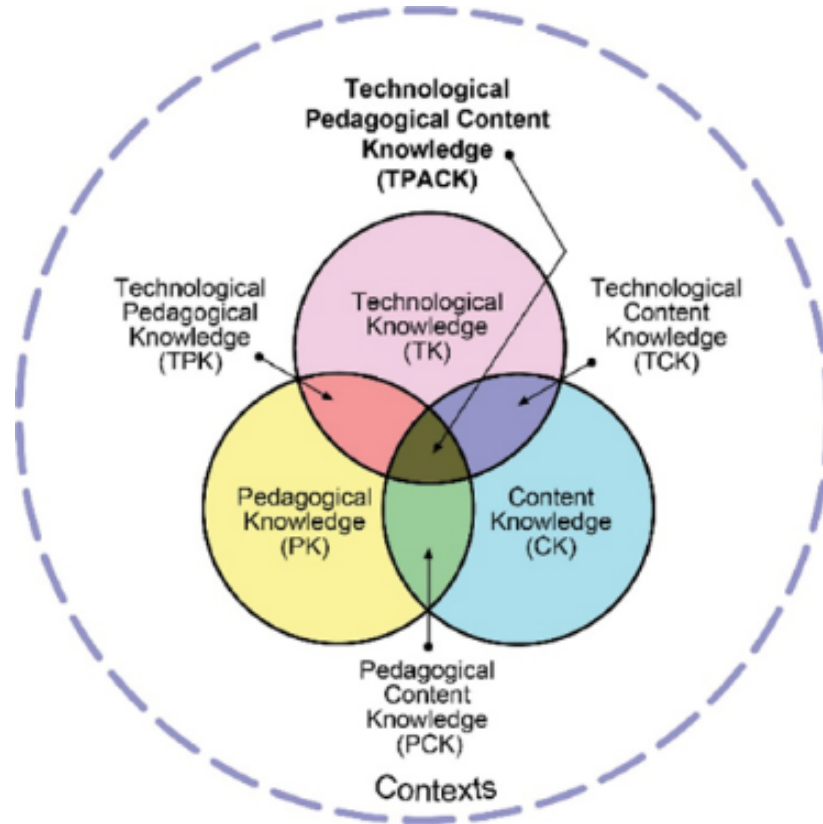
In today's fast-changing education scene, adult educators are crucial for promoting lifelong learning by using technology in their teaching. The incorporation of digital tools and resources not only enhances

the learning experience but also empowers adult learners to engage more deeply with content and develop essential skills for the modern workforce. By leveraging technology, educators can create interactive and personalised learning environments that cater to diverse learning needs, promote collaboration, and facilitate access to a wealth of information. As they adapt to new technologies, educators must also embrace innovative pedagogical approaches that encourage critical thinking and digital literacy, ensuring that adult learners are well-prepared to navigate the complexities of an increasingly digital world.

TPACK, which stands for Technological Pedagogical Content Knowledge, is a framework that outlines the knowledge educators need for effective technology integration in their classrooms. This framework highlights the interactions between an educator's understanding of content, pedagogy, and technology, showing how these elements work together to enhance teaching effectiveness. (Koehler & Mishra, 2014)

The TPACK framework builds on Shulman's (1987, 1986) descriptions of PCK to describe how teachers' understanding of educational technologies and PCK interact to produce effective teaching with technology.

This model (see Figure 1) has three main components of teachers' knowledge: content, pedagogy, and technology. Equally important to the model are the interactions between and among these bodies of knowledge, represented as PCK (pedagogical content knowledge), TCK (technological content knowledge), TPK (technological pedagogical knowledge), and TPACK. (Koehler & Mishra, 2009)



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Content Knowledge (CK)	<p>Educators' knowledge of the subject matter to be learned or taught. The content to be covered in primary school science or history is different from the content to be covered in an undergraduate course on art appreciation or a graduate seminar on astrophysics. Knowledge of content is of critical importance for teachers. (Koehler & Mishra, 2009)</p>
Pedagogical Knowledge (PK)	<p>Educators' deep knowledge about the processes and practices, or methods of teaching and learning. They encompass, among other things, overall educational purposes, values, and aims. This generic form of knowledge applies to understanding how students learn, general classroom management skills, lesson planning, and student assessment. It includes knowledge about techniques or methods used in the classroom, the nature of the target audience, and strategies for evaluating student understanding. (Koehler & Mishra, 2009)</p>
Technology Knowledge (TK)	<p>The understanding of how to effectively use technology and tools. It involves recognising how technology can help or hinder goals, using information technology in daily life and work, and adapting to tech changes. (Koehler & Mishra, 2009)</p>
Pedagogical Content Knowledge (PCK)	<p>It refers to an educator's ability to effectively teach specific subjects. Developed by Shulman, it involves adapting content for learners by interpreting it, finding different ways to explain it, and customising materials based on their prior knowledge. PCK is crucial for effective teaching, connecting methods, learning, curriculum, and assessment. (Koehler & Mishra, 2009)</p>
Technological Content Knowledge (TCK)	<p>It is the understanding of how technology and subject matter interact. Educators must know their subject well and how different technologies can enhance it, as well as how the content may impact the choice of technology. (Koehler & Mishra, 2009)</p>
Technological Pedagogical Knowledge (TPK)	<p>It is the understanding of how teaching changes with the use of specific technologies, including their benefits and limitations based on the subject and students' development. (Koehler & Mishra, 2009)</p>
Technological Pedagogical Content Knowledge (TPACK)	<p>It combines understanding of subject matter, effective teaching methods, and meaningful use of technology. It helps educators teach with technology by clarifying concepts, enhancing learning, recognising challenges, and building on students' prior knowledge. (Koehler & Mishra, 2009)</p>

Learn more about the TPACK and how to integrate Nearpod with TPACK in delivering education to your learners at the following [link](#).

Integrating technology widens the teaching modes that educators can use, including online/distance, blended learning, flipped classrooms, and microlearning.

- Online/distance learning is a method of studying in which lectures are broadcast or lessons are conducted by correspondence, without the student needing to attend a school or college. Some of the advantages of distance learning include flexibility, comfort, instant support and updates, affordability, eco-friendliness and the ability to accommodate different learning styles. However, there are also some disadvantages, like the isolation and lack of community, which is often seen as a hands-off approach, technical issues by educators and learners.
- Blended learning combines face-to-face and online activities in a seamless and complementary flow of learning. Some of the benefits of blended learning include flexibility, personalisation, increased engagement, access to resources, and cost effectiveness. There are also some challenges, such as technical issues and pedagogical concerns, which lead to the need for further training for educators, student motivation, fair assessment and evaluation of students' work, equity issues with access to technology and resources, logistical challenges, as well as overcoming the resistance to change.
- Flipped learning is a pedagogical approach in which the conventional notion of classroom-based learning is inverted so that students are introduced to the learning material before class, with classroom time then being used to deepen understanding through discussion with peers and problem-solving activities facilitated by teachers. The University of Texas, Austin, has created a short animation to explain how the flipped classroom works. This can be viewed at the following [link](#).
- Microlearning is an educational strategy that focuses on learning new information in small units. This approach to learning breaks down topics into short-form, standalone units of study that the learner can view as many times as necessary, whenever and wherever they need. Microlearning gives learners access to short bursts of new information that's engaging and digestible, as opposed to one large chunk of information that might be difficult to remember. Examples of microlearning include:
 - Watching a brief instructional video and answering a question.
 - Playing an online learning game to practice a specific skill.
 - Reading an executive summary and completing a few questions.
 - Viewing an infographic and answering some questions.

- Using virtual flashcards to study for a quiz.
- Participating in a scenario-based simulation online.

Technology-enhanced learning (TEL) refers to any type of technology, such as laptops, tablets and virtual learning environments, used to enhance learners' educational experience. One popular example of TEL is gamification, which incorporates competition and point scoring into learning modules. The Internet-based language learning app [Duolingo](#) is a great example of how gamification can keep learners engaged by incorporating features such as streaks, points, levels, badges, leaderboards, and instant feedback to make the learning process interactive, motivating, and habit-forming.

Artificial Intelligence (AI) content creation tools offer numerous benefits, including personalised learner support, a rich source of engaging activities, and a reduced workload for educators. However, they also present challenges, such as the risk of overreliance, ethical concerns around bias and plagiarism, issues of unequal access, and other potential drawbacks. To ensure the ethical use of AI in education, there should be clear policies for both educators and students. It is essential to provide educators and students with a clear list of approved AI tools, along with guidelines on their proper use. Where necessary, training sessions can be organised to help educators understand both how to use these tools effectively and the reasoning behind the established rules. Additionally, these policies should be regularly reviewed and updated, as the rapidly evolving nature of AI may introduce new ethical considerations over time.

AI content creation apps can support teachers by streamlining their workload, enhancing lesson planning, and providing fresh, engaging resources that enrich the learning experience. These apps can automate tasks such as making lesson plans, quizzes, and assessments. This gives teachers more time to focus on personal instruction and engaging with students. They also offer insights into how students are performing, allowing for customised learning and better teaching strategies.

Below you can find some examples of the tools that educators can use for content creation:

<u>Canva</u>		Allows educators and students to create and personalise their own designs from scratch, or choose from thousands of high-quality, educational templates.
<u>Genially</u>		Enables educators to build incredible interactive eLearning, teaching, and marketing content as well as no-code authoring & gamification tools.
<u>Eduaide.Ai</u>		Offers a resource generator, teaching assistant, feedback bot, and AI chat to assist with lesson planning, content creation, and feedback.
<u>MagicSchool.ai</u>		The platform offers a diverse array of resources and tools specifically designed to support educators across different grade levels and subject areas, enhancing the learning experience for students.
<u>Zebrecat</u>		Allows teachers to create educational videos using text prompts or scripts, without requiring technical expertise.
<u>Curipod</u>		The platform facilitates engaging and interactive video lessons, enabling educators to create dynamic learning experiences for their students.
<u>Kahoot</u>		Kahoot! is an online game-based learning platform. It has learning games, also known as "Kahoots", which are user-generated multiple-choice quizzes that can be accessed via a web browser or the Kahoot! app.
<u>H5P</u>		It is a free, open-source tool used to create interactive HTML5 content for educational purposes. It allows educators and e-learning professionals to design, share, and reuse a wide variety of interactive learning activities without requiring advanced technical skills.

Quizlet**Quizlet**

It allows educators to leverage AI to power its adaptive learning system to create custom study sets, flashcards, and quizzes that support interactive learning.

Technology plays a critical role in adult education, but how can you identify the tools and resources that are most appropriate for your subject matter and the diverse backgrounds of your learners? Choosing the right technology can enhance your instructional effectiveness and improve learning outcomes, yet it can also present challenges and consume significant time. Below, there are some practical tips and strategies for effectively selecting and utilising technology in your adult education classroom, based on a recent article (Rott & Schmidt-Hertha, 2024):

- Aligning with learning outcomes

It is essential to ensure that the tools used enhance the educational experience. This alignment helps guarantee that technology acts as a means to improve understanding and retention, rather than distract from the primary educational goals.

- Assess digital literacy levels

Before introducing new technology, evaluate the digital skills of your adult learners. Tailoring technology use to their proficiency can enhance engagement and effectiveness.

- Choose accessible platforms

Select online learning platforms that are user-friendly and accessible on multiple devices. Ensure that learners can access these resources from anywhere, which supports flexibility in learning.

- Encourage lifelong learning

Integrate platforms that provide a wide range of courses and programs, promoting continuous skill development. This helps cater to adults looking to learn at their own pace and convenience.

- Encourage a supportive environment

Create opportunities for peer-to-peer learning, which can counter feelings of isolation in online environments. Encourage discussions and collaborations that allow learners to share experiences and challenges.

- Provide training for digital tools

Offer training sessions on how to navigate and use online learning platforms effectively. This can help reduce barriers for learners who may be unfamiliar with digital resources.

- Evaluate the quality of resources

Teach learners how to assess the credibility and accuracy of online sources. Providing criteria for evaluation can enhance their critical thinking skills in navigating digital content.

- Incorporate personalised learning

Utilise technology that allows for customising learning experiences based on individual learner needs. Personalisation can increase motivation and engagement among adult learners.

- Stay updated on technology trends

Keep informed of technological developments and emerging tools that can enhance your teaching practice. Regularly review and potentially adopt new tools that align with your educational goals.

- Engage in dialogue with learners

Encourage feedback from learners about the technologies being used. Engaging them in discussions about their needs and preferences can foster a sense of ownership and can lead to better implementation.

- Address challenges of digital isolation

Be aware of the potential isolating effects of online learning. Incorporate regular interactive elements, such as live discussions or group projects, to maintain social engagement.

Implementing these strategies can help foster a more effective, engaging, and supportive learning environment in adult education, harnessing the advantages of technology while thoughtfully addressing its associated challenges.

Aspect 3: Infrastructure

3.1. Connectivity and Devices

Robust infrastructure is essential for enabling sustainable digital transformation in adult education settings. This section outlines the minimum technical requirements that lifelong learning institutions should meet to support the effective use of digital and AI tools in both administrative and instructional contexts.

Minimum Connectivity Requirements

A reliable internet connection is a requirement for accessing cloud-based platforms, online learning environments, and AI-powered tools. Institutions should aim for the following as a baseline:

- **Speed:** Aim for an internet connection with at least **100 megabits per second (Mbps) download speed** and **20 Mbps upload speed**. This is generally enough to support multiple users streaming, sharing files, and using cloud-based apps simultaneously.
- **Stability:** The internet should be consistent, with no frequent dropouts or long delays, especially during live sessions like webinars or meetings.
- **Back-up plans:** It's a good idea to have a secondary option, such as a mobile internet device or a second internet provider, in case the primary connection goes down.

Devices and Equipment

Institutions should provide access to modern digital devices that can support cloud services, multimedia content, and AI-enhanced tools. Minimum recommendations include:

- **Desktops or laptops** with at least 8GB RAM, dual-core processors, and updated operating systems (Windows 10+, macOS 11+, or Linux distributions).
- **Tablets or smartphones** for flexible learning and mobile access to learning platforms and apps.
- **Peripheral devices** such as webcams, headsets, and microphones to support hybrid learning and communication.

3.2. Bring Your Own Device (BYOD) Policies

***Bring Your Own Device (BYOD)** refers to a policy or practice that allows learners, educators, and staff to use their own personal electronic devices—such as laptops, tablets, or smartphones—for educational or work-related activities within an institution. This approach supports flexibility, accessibility, and cost-efficiency by enabling individuals to use familiar tools, while also requiring clear guidelines to ensure security, compatibility, and effective use within the organisation's digital environment.

Institutions may adopt **BYOD policies** that allow learners and staff to use their personal devices to promote inclusivity and flexibility. For this to work effectively:

- Make sure personal devices are secure, with antivirus software and updated systems.
- Provide clear instructions on what apps or platforms are needed, so people know if their device is suitable.
- Offer support for connecting to the institution's Wi-Fi or accessing learning materials, especially for those less confident with technology.

Institutions are encouraged to maintain a balance between BYOD flexibility and institutional provisioning to ensure that no learner is excluded due to a lack of access to appropriate devices or connectivity.

3.3. Learning Management Systems (LMS): How to Select and Maintain the Right Platform

An LMS is the central hub for managing online learning, sharing resources, tracking progress, and supporting communication between educators and learners. Selecting and maintaining the right platform ensures effective digital learning experiences and organisational efficiency.

Step-by-Step Selection Process

1. Identify Your Needs

Begin by assessing the institution's goals, teaching methods, and user profiles (e.g. adult learners, part-time educators). Consider whether the LMS will support blended, synchronous, or fully online learning.

2. Set Key Criteria

Define the features your LMS must offer. Common requirements include:

- a. Course and content management
- b. User tracking and analytics
- c. Integration with AI tools or existing systems
- d. Accessibility and mobile compatibility
- e. Support for multimedia content and assessments

3. Explore and Compare Options

Once you've identified your institution's needs and priorities, the next step is to research available Learning Management Systems and compare them based on key criteria. Some commonly used platforms include Moodle, Canvas, Google Classroom, and Edmodo, each offering different strengths depending on institutional context and technical readiness. When comparing LMS platforms, consider the following aspects:

- a. **Ease of use:** Look for platforms with intuitive, user-friendly interfaces that require minimal training for both educators and learners. A simple layout, clear navigation, and accessible course creation tools are essential to ensure that users can adopt the platform without feeling overwhelmed.
- b. **Cost (including free/open-source options):** Examine both upfront and long-term costs. Some platforms, like Moodle, are open-source and free to use but may require investment in hosting and technical setup. Others like Canvas or Blackboard might offer more features, but come with licensing fees. Consider whether your budget allows for premium features or if a no-cost solution with fewer frills is sufficient.
- c. **Support and training availability:** Evaluate the level of technical support and user training provided. A platform backed by a strong community (like Moodle) or with built-in training resources and responsive customer service (like Canvas or Google Classroom) can greatly ease the burden on your staff. Consider also whether training is available in your language and tailored to adult education.
- d. **Security and GDPR compliance:** Confirm that the platform adheres to data protection standards, particularly GDPR, if you are operating within the EU. The LMS should offer

secure logins, encrypted data transmission, and transparent data policies. Check if users can control their own data and whether institutional administrators can manage permissions and privacy settings effectively.

4. Pilot and Gather Feedback

Before committing to a specific LMS, it's essential to conduct a pilot test with a small, representative group of users, ideally including educators and adult learners from different backgrounds and digital skill levels. This real-world testing phase allows institutions to observe how the platform performs in practice, beyond technical specifications. During the pilot, encourage users to create and access courses, upload and download learning materials, participate in discussions or assignments, and explore available support features (e.g. help guides, user forums). As the test progresses, gather structured feedback through surveys, focus groups, or informal interviews. Key areas to explore include: Usability (How easy is the platform to navigate and use daily?), Performance (Are there any technical issues such as slow loading, bugs, or login problems?), and Support needs (What kind of guidance or training do users feel they need to use the LMS effectively?).

5. Make a Decision and Plan the Roll-Out

Choose the platform that best meets your needs. Develop a phased implementation plan, including timelines, user training, and technical support setup.

Ongoing Maintenance Tips

1. **Regular Updates:** Keep the platform software up to date to ensure security, fix bugs, and access new features.
2. **User Support:** Establish a help desk or assign a staff member to assist with basic troubleshooting and onboarding.
3. **Monitor Usage and Feedback:** Regularly check how the LMS is being used and collect user input to identify areas for improvement.
4. **Data Backup and Security:** Ensure regular backups and enforce secure access policies to protect user data and content.
5. **Review Annually:** Evaluate the LMS's yearly performance to ensure it aligns with institutional goals and technological developments.

By following this simple process, institutions can confidently select and maintain an LMS that supports effective, inclusive, and future-ready digital learning.

3.4. Cybersecurity & Data Privacy

As lifelong learning institutions integrate digital and AI tools, maintaining a secure and privacy-conscious environment is essential. Institutions must comply with the General Data Protection Regulation (GDPR), ensuring that personal data is collected only when necessary, stored securely, and used transparently. Staff and learners should be informed about how their data is handled, and explicit consent must be obtained when required, especially when using third-party platforms.

Institutions should implement strong password policies, secure Wi-Fi access, up-to-date antivirus and firewall protections, and regular platform updates to foster a safe digital environment. A clear digital code of conduct and basic cybersecurity training for staff and learners can help prevent misuse and build confidence in online learning environments.

Ethical guidelines are equally important with the increasing use of AI in education. Institutions should use AI transparently, avoid tools that process sensitive data without consent, and ensure human oversight in all AI-supported decision-making. AI should enhance—not replace—educational practices, and care must be taken to avoid bias or misinformation in automated outputs. Institutions can offer secure and trustworthy digital learning spaces by combining responsible data management, safe technology practices, and ethical AI use.

3.5. Accessibility & Universal Design

Creating inclusive digital learning environments means ensuring all learners can access, engage with, and benefit from educational content and tools regardless of ability, background, or learning style. Accessibility involves removing barriers that prevent people with disabilities from participating fully. At the same time, [Universal Design](#) takes a broader approach by designing learning environments that everyone uses from the start.

To achieve this, institutions should follow recognised standards such as the [Web Content Accessibility Guidelines](#) (WCAG 2.0 or higher). These guidelines recommend features like text alternatives for images, captions for videos, keyboard navigation, and readable fonts and colours with sufficient contrast. All learning platforms, websites, and materials should be tested to ensure they work with screen readers and other assistive technologies.

In addition, educators and administrators should design courses with flexibility in mind—offering content in multiple formats (e.g., text, video, audio), allowing extra time on digital assessments, and using clear, simple language. Digital tools should also be mobile-friendly and accessible on various devices, including older hardware.

Training staff on accessibility principles and encouraging feedback from learners with diverse needs helps build awareness and improve practices over time. By embedding accessibility and universal design from

the beginning, institutions can ensure equitable access and participation for all learners, supporting inclusion at every level of digital transformation.

For Annexes: Infrastructure checklist

Category	Item	Minimum Requirement	Status (Yes/No/In Progress)	Notes
Connectivity	Internet speed (download/upload)	≥ 100 Mbps download / ≥ 20 Mbps upload*		
	Internet stability and uptime	Reliable connection with minimal disruptions		
	Backup internet option	Secondary ISP or mobile data solution available*		
Devices	Staff computers/laptops	Modern device with ≥ 8GB RAM, updated OS*		
	Learner access to devices	Devices available or BYOD supported		
	Peripheral equipment	Headsets, webcams, and microphones were needed		
BYOD Policy	Policy in place	Guidelines for secure and compatible personal device use		
	IT support for BYOD users	Staff or helpdesk available for setup/troubleshooting		
Learning Environment	Learning Management System (LMS)	Functional platform (e.g., Moodle, Google Classroom)		
	Mobile-friendly access	LMS and tools accessible via smartphones and tablets		
Cybersecurity	Network security	Firewall, antivirus, secure Wi-Fi		
	Data privacy compliance	GDPR and institutional policy adherence		



Accessibility & Inclusion	Accessibility standards	WCAG 2.0 compliant tools and platforms		
	Support for users with disabilities	Assistive tech, captions, alternative formats		

**Consult a professional*



Aspect 4: Research and Development

4.1. Self-reflection for Educators

Self-reflection helps teachers think deeply about their teaching methods, experiment with new digital tools, and improve their support of learners. In adult education, where learners have different needs and backgrounds, reflecting on what works is especially important.

Institutions can create a culture of reflection by:

1. Setting aside 15 minutes after each lesson for teachers to jot down what went well and what could be improved.
2. Organising monthly peer-reflection meetings where teachers share one digital success and one challenge.
3. Using digital journals or apps like Microsoft OneNote or Google Docs for ongoing reflective writing.

Example: A teacher tries using Padlet in a literacy class. After the session, they reflect and realise that some learners struggled with logging in. As a result, the teacher decides to prepare a simple login guide and give extra support next time.

These reflections can be shared with colleagues to build collective knowledge and confidence around using digital tools.

4.2. Working with EdTech Providers and Universities

Collaboration with EdTech providers and universities brings fresh ideas, tools, and support into adult education. It allows institutions to test tools before fully adopting them and gives access to expert advice.

Ways to collaborate:

- Invite EdTech companies to host free demo sessions for staff.
- Partner with a local university on a research project about digital learning.
- Join pilot programs offered by startups to test new learning platforms.

Example: CIK Trebnje partners with a university education department to explore how AI tools like ChatGPT impact language learning. Together, they run a small study, collect feedback from learners, and adjust teaching methods based on the results.

These collaborations improve the institution's ability to make smart, evidence-based decisions about digital tools.

4.3. Monitoring and Evaluation

Institutions need to monitor progress and evaluate results regularly to determine whether digital transformation is working. This helps leaders make improvements and keeps everyone on track.

Steps for effective monitoring:

1. Set clear goals, such as 'At least 70% of teachers use digital tools weekly' or 'All learners complete a digital self-assessment.'
2. Use simple surveys after workshops to ask: What did you learn? What would you change?
3. Analyse LMS data to see how often learners log in and complete tasks.
4. Organise focus groups where learners and staff talk about their experiences.

Example: After introducing Classroomscreen, the institution sends a short feedback form. Teachers report that the tool helps with time management, but some ask for training on advanced features. This feedback leads to a new mini-training session.

Action plan development and implementation [Cardet360]

Digital transformation in education is most successful when driven by a clear plan aligned with institutional goals. This section provides a simplified framework to help users develop and implement an Action Plan for Digital Transformation.

1. Vision and goals

A clear and shared vision is the foundation of a successful digital transformation. It communicates why digital change is necessary and what the school or institution hopes to achieve. This step should be participatory, engaging leadership, teachers/educators, students, and other key stakeholders in a collaborative process. A strong vision aligns digital transformation with the core mission of education: improving learning outcomes, equity, inclusion, and innovation.

How to develop and promote your organisation's vision:

1. Facilitate a vision-building workshop	<ul style="list-style-type: none"> ○ Bring together representatives from leadership, staff, students, and the school community. ○ Use prompts like: <ul style="list-style-type: none"> ■ "What do we want teaching and learning to look like in three years?" ■ "How can digital tools help us become more inclusive, efficient, or future-ready?"
2. Draft a concise vision statement Keep it simple, inspirational, and future-focused	<ul style="list-style-type: none"> ○ Use clear language: Avoid technical jargon. The vision should be understandable and motivating to all stakeholders. ○ Make it aspirational but grounded: It should be forward-looking, but achievable. ○ Example: "To create a digitally enabled learning environment that empowers all students and educators to thrive in a connected world."
3. Communicate and display the vision	<ul style="list-style-type: none"> ○ Present it on posters, newsletters, and staff/student meetings. ○ Use clear language: Avoid technical jargon. The vision should be understandable and motivating to all stakeholders. ○ Revisit the vision regularly to reinforce commitment.

Set SMART Goals to realise the vision

Once the vision is in place, break it down into SMART goals (Specific, Measurable, Achievable, Relevant, Time-bound). Goals translate vision into concrete outcomes.

Examples of SMART Goals in different areas:

- Pedagogy: By the end of the next year, 90% of teachers will have completed certified digital pedagogy training from the Digitalli project.
- Infrastructure: Equip all classrooms with stable Wi-Fi and digital projectors within 6 months.
- Inclusion: Provide assistive technology tools for students with special needs by Q3.
- Capacity-building: Improve student digital literacy levels by 25% within 18 months, as measured by internal surveys.

Practical tips:

- Use SELFIE results (see next step) to identify your priority areas where the biggest gaps may exist.
- Keep goals adaptable – review and adjust them annually.
- Make goals visible and actionable in teacher meetings, student councils, and parent meetings.

2. SELFIE (Self-reflection on Effective Learning by Fostering Innovation through Educational Technologies)

[SELFIE – https://education.ec.europa.eu/selfie](https://education.ec.europa.eu/selfie)

The SELFIE tool is a free, EU-supported diagnostic instrument that helps schools assess how they are integrating digital technologies into teaching, learning, and assessment. It provides a structured, anonymous self-assessment for school leaders, teachers, and students, based on the DigCompOrg framework.

Step 1: How to Use SELFIE

1. Register your school on the SELFIE platform.
2. Customise the questionnaire (optional): Adapt some questions to better reflect your school's context.
3. Invite all stakeholder groups: Ensure that leaders, teachers, and students participate for a 360-degree view.
4. Allocate time and guidance: Set aside dedicated time during school hours to complete the survey, and provide support where needed (especially for younger students).

Step 2: After the Survey: Analyse & Act

- Examine the results: The system generates automated visual reports highlighting strengths and areas for development.
- Discuss findings in teams: Organise debriefing sessions to reflect on what the data tells you. For example:
 - Do teachers feel confident using digital tools?
 - Are students using technology meaningfully in class?
 - Is leadership effectively supporting digital innovation?
- Identify priority areas where gaps are more prominent for your digital action plan. Focus on what's urgent, achievable, and aligned with your overall vision.

Practical tips:

- Be inclusive: Clearly explain the purpose to all stakeholders and ensure participation is voluntary and informed.
- Compare over time: Repeating SELFIE annually helps track progress and adjust goals.
- Link results to goals: Use the findings to support the SMART goals set in the previous section (e.g., professional development needs, infrastructure gaps).
- Use the “Insights” from SELFIE to support funding proposals or decision-making at the school or district level. Data-driven planning is more persuasive and impactful.

3. Stakeholder Mapping

Digital transformation is not a one-person effort - it requires collaboration, shared ownership, and clear communication across all levels of the school ecosystem. Mapping stakeholders helps identify who is involved, what their roles and interests are, and how to effectively engage them throughout the process.

Who are the stakeholders?

Internal stakeholders

- School leadership – Define vision, allocate resources, set policy.
- Teachers – Implement digital tools in classrooms and need targeted training.

- ICT Coordinators/technicians – Provide technical support, infrastructure, and digital learning guidance.
- Students – The primary users; their feedback is vital for success.
- Administrative staff – Ensure smooth integration into school operations (e.g., scheduling, communications).

External stakeholders

- Parents/caregivers – Need to understand the value of digital tools and support learning at home.
- Local education authorities can provide strategic guidance, policy alignment, and funding.
- Tech providers may offer tools, training, and updates.
- Community partners – Bring opportunities for real-world application and outreach.

Example of stakeholder matrix

Stakeholder	Role/Interest	Influence Level	Engagement Strategy
School Leadership	Strategic decisions	High	Regular updates, decision-making meetings
Teachers	Daily implementation	High	Training sessions, feedback loops
Students	Direct beneficiaries	Medium	Surveys, student panels
Parents	Support learning at home	Medium	Info sessions, newsletters
ICT Coordinator	Technical implementation	High	Involvement in all planning stages

Practical tips:

- Communicate clearly and often: Use appropriate channels for each group (e.g., meetings, WhatsApp groups, email).
- Assign stakeholder champions: Identify individuals who can represent and motivate each group.
- Revisit the matrix: Stakeholder roles may evolve—review and update as your plan progresses.

- Use simple collaborative tools like Miro, Padlet, or Google Sheets to co-create and update the stakeholder map as a team.

4. Timeline and Milestones

A clear timeline transforms vision into action. Breaking down the digital transformation process into phases and milestones ensures clarity, accountability, and progress tracking. Each phase should build upon the last, allowing time for feedback, reflection, and adjustment.

Sample timeline with phases and milestones

Phase	Key Activity	Responsible	Timeframe	KPI
1	SELFIE completion and analysis	Digital Lead	Q1	≥80% response rate from target groups; report summarising results
2	Vision and goal-setting workshops	Leadership Team	Q1–Q2	Strategic goals document finalised and endorsed by key stakeholders
3	Training and pilot implementation	ICT Coordinator	Q2–Q3	≥75% of targeted staff complete training; pilot runs in 2–3 classrooms
4	Evaluation and scale-up	Evaluation Lead	Q4	Evaluation report with improvement metrics; plan for full rollout

Practical tips

- Start small: Pilot with a few classrooms or subjects before scaling up.
- Use a Gantt chart: Visual tools like Trello, Asana, or Excel can help visualise progress.
- Assign clear ownership: Each milestone should have a lead person or team.
- Build in check-ins: Include time for short reflection meetings between phases to adjust the next steps.
- Keep it realistic: Account for school holidays, exam periods, and existing workload.
- Allow for flexibility: Unforeseen delays can happen. Include buffer periods or flexible review windows.
- Celebrate milestones: Small wins maintain momentum and motivate teams. Acknowledging progress also reinforces a culture of collaboration and change.

Remember: A digital transformation plan is iterative—review the timeline regularly and make revisions as necessary.

5. Risk Management

Effective risk management is crucial to ensure the smooth progress of your digital transformation action plan. Begin by identifying potential risks that could affect your project's success. These might include:

- Technical risks: Issues like inadequate infrastructure, software glitches, or lack of technical support.
- Human factors: Resistance to change among staff or students, lack of digital skills, or insufficient training.
- Financial risks: Budget overruns, unexpected costs, or funding delays.
- Organisational risks: Poor communication, unclear responsibilities, or shifting priorities.
- External risks: Changes in policies, supplier reliability, or external disruptions (e.g., pandemics).

Steps for Risk Management:

1. Identify risks: Engage stakeholders to brainstorm possible obstacles.
2. Assess risks: Evaluate the likelihood and potential impact of each risk using a simple scale (e.g., Low, Medium, High).
3. Plan mitigation: Develop specific strategies to reduce risks, such as staff training, contingency budgeting, or technical support contracts.
4. Assign responsibility: Ensure clear ownership of each risk mitigation action.
5. Monitor continuously: Regularly review and update the risk register throughout implementation.

Risk Matrix: Identify potential risks and mitigation strategies

Risk	Likelihood	Impact	Mitigation
Low teacher engagement	Medium	High	Conduct early training and involve teachers in co-creation
Resistance to change	Medium	High	Communicate benefits clearly; involve stakeholders from the start
Delayed timelines	Medium	Medium	Develop realistic timelines with buffer periods; monitor progress regularly
Insufficient student access to devices	High	High	Plan device lending schemes or provide alternative access methods
Poor communication	Medium	Medium	Establish clear communication channels and regular updates

Practical tips:

- Use a Risk Matrix to visualise and prioritise risks.
- Foster an open culture where team members report issues early.
- Keep communication channels active to address risks before they escalate.
- Incorporate flexibility in your timeline to accommodate unexpected delays.

6. Evaluation and Impact Assessment Plan

Effective evaluation is essential to measure the success of your digital transformation and ensure continuous improvement. Establish clear indicators and reliable data sources to monitor progress regularly:

- Pre/post SELFIE results: Compare these to gauge improvements in digital practices and stakeholder perceptions.
- Teacher and student feedback surveys: Collect qualitative and quantitative insights on experiences, challenges, and perceived benefits.
- Lesson observations: Conduct classroom visits or virtual observations to assess how digital tools are integrated into teaching.
- Technology usage analytics: Monitor platform logins, tool utilisation rates, and engagement metrics to understand adoption and impact.

Evaluation should be formative, providing ongoing feedback to adjust strategies during implementation, and summative, assessing overall impact at the end of each phase or project cycle.

Practical tips:

- Align actions with national and regional digital education strategies to ensure coherence, access to funding, and policy support.
- Use data from SELFIE and other sources to inform decisions and prioritise areas needing improvement.
- Involve stakeholders early and throughout the evaluation process to foster ownership and gather diverse perspectives.
- Pilot new initiatives on a small scale first to identify challenges, gather feedback, and build confidence before wider rollout.
- Maintain flexibility to adapt your action plan based on evaluation findings, changing needs, or emerging technologies.

Relevant Resources

- Setting up SELFIE in your school: <https://education.ec.europa.eu/selfie/get-started/how-it-works>
- SELFIE for Teachers: <https://education.ec.europa.eu/selfie-for-teachers>
- Digital Education Action Plan (EU):
<https://education.ec.europa.eu/focus-topics/digital/digital-education-action-plan>
- DigCompOrg Framework: https://joint-research-centre.ec.europa.eu/digcomporg-framework_en

ANNEXES

Annex 1: DIGITALLI Self-Assessment Template

Please read the description of the desired competence for each thematic area and rate your digital competences by checking the suitable box as follows:

Area	Competence	I need support	I have some experience	I am confident	I can support others
Information & Data Literacy	I know how to use search engines effectively and assess the reliability of online sources.				
	I compare information from different platforms and recognise biased or outdated content.				
Safety & Security	I use strong passwords, update my software, and understand basic cybersecurity risks.				
	I am aware of data privacy regulations (e.g., GDPR) and advise others on safe online practices.				
Communication & Collaboration	I communicate clearly and respectfully in digital environments (e.g., email, chat).				
	I contribute to shared documents, virtual teams, or group projects using collaboration tools.				
Digital Content Creation	I can format documents and create visual content using tools like Word, Canva, or PowerPoint.				
	I design engaging learning or work materials using multimedia and appropriate formats.				
Organisation & Productivity	I use digital calendars and reminders to manage appointments or deadlines.				
	I organise files in the cloud, use to-do lists, and manage workflows across multiple tools.				

Digital Participation	I can create and join video meetings, mute/unmute, and share my screen.				
	I use breakout rooms, polls, and chat features effectively to contribute and support others.				
Problem Solving	I troubleshoot common issues (e.g., login errors, frozen screens) or seek help when needed.				
	I help others troubleshoot problems and adapt to new updates or unfamiliar platforms.				
Emerging Technologies	I experiment with AI tools for writing, brainstorming, or feedback generation.				
	I integrate AI tools in my learning or teaching and guide others in ethical use.				
Adaptability	I adjust lesson formats or content to suit learners with different digital skill levels.				
	I personalise digital learning pathways using student feedback or engagement data.				
Reflective Practice	I regularly assess how digital tools help or hinder my tasks and learning goals.				
	I adapt my digital habits and support others in managing screen time and tool effectiveness.				

Annex 2: Lesson Plan template created using Canva – find instructions on this [link](#).



Lesson Outline

Duration	Guide	Remarks
xx minutes	Energiser or icebreaker activity	Add a reminder or personal prompts here
xx minutes	Introduction of a new topic or continuation of a previous lesson	
xx minutes	Review of previous concepts (as needed)	
xx minutes	Main Discussion	
xx minutes	Independent or Guided Activities	
xx minutes	Assessment or Evaluation	
xx minutes	Others	

Notes

Include your pre-lesson reminders or post-discussion observations here

LESSON PLAN



Navigate your lesson with this guide to make time for meaningful discussions.

Summary

Date	
Topic	
Learners Group	
Main Topic or Unit	
Subtopics or Key Concepts	

Materials Needed

- Any digital tools for demonstrating concepts or conducting an activity
- You may also include references to be used for preparing the lesson
- Pen, Paper/Journal, etc.

Learning Objectives

Include at least two outcomes to help set and manage expectations for you and your learners. Identify various thinking skills - a mix of higher and lower based on Bloom's Taxonomy.



Annex 3: EdTech evaluation rubric developed using magicschool.ai app, find instructions on this [link](#).

Criteria	1- Unsatisfactory	2 – Needs Improvement	3 – Satisfactory	4 – Good	5 – Excellent
Understanding of EdTech Concepts	Does not demonstrate understanding of EdTech concepts; explanations are missing or incorrect.	Shows limited understanding; explanations lack clarity or contain significant errors.	Demonstrates basic understanding; some important details are missing or unclear.	Shows good understanding with minor inaccuracies; explanations are generally clear.	Demonstrates thorough understanding; explains concepts and theories with clarity and accuracy.
Selection of Digital Tools	Fails to select suitable digital tools for enhancing lessons; no justification provided.	Selects tools with poor alignment to lesson objectives and learner needs; lacks justification.	Selects digital tools that somewhat align with lesson objectives but lack clear justification.	Selects appropriate tools with minor misalignments to goals or learner needs.	Consistently selects highly appropriate tools that align perfectly with lesson objectives and learner needs.
Integration of Tools into Lessons	Does not integrate digital tools, or integration detracts from lesson quality.	Attempts integration, but it is ineffective or disrupts lesson flow.	Integrates digital tools in a basic manner; limited enhancement of learning experiences.	Integrates tools well to support lesson goals; some creativity evident.	Effectively integrates tools seamlessly to enhance learning experiences; demonstrates creativity and innovation.
Evaluation of Tool Effectiveness	Does not evaluate digital tools, or evaluation is inaccurate or missing.	Provides minimal evaluation; lacks evidence and critical analysis.	Provides basic evaluation; limited evidence or analysis of tool effectiveness.	Provides clear evaluation with some supporting evidence; identifies strengths and weaknesses.	Provides a comprehensive evaluation of tool effectiveness with strong supporting evidence.
Reflection on EdTech Impact	No meaningful reflection on	Reflection is superficial;	Reflection is general with	Reflection shows good	Insightful reflection on

Criteria	1- Unsatisfactory	2 – Needs Improvement	3 – Satisfactory	4 – Good	5 – Excellent
	EdTech impact provided.	minimal insight into EdTech’s impact on teaching and learning.	limited connection to teaching practice.	understanding of EdTech impact; some connections to practice.	how EdTech enhances teaching and learning; strong connections between theory and practice.

Annex 4: Infrastructure Checklist

Category	Item	Minimum Requirement	Status (Yes/No/In Progress)	Notes
Connectivity	Internet speed (download/upload)	≥ 100 Mbps download / ≥ 20 Mbps upload*		
	Internet stability and uptime	Reliable connection with minimal disruptions		
	Backup internet option	Secondary ISP or mobile data solution available*		
Devices	Staff computers/laptops	Modern device with ≥ 8GB RAM, updated OS*		
	Learner access to devices	Devices available or BYOD supported		
	Peripheral equipment	Headsets, webcams, and microphones where needed		
BYOD Policy	Policy in place	Guidelines for secure and compatible personal device use		
	IT support for BYOD users	Staff or helpdesk available for setup/troubleshooting		
Learning Environment	Learning Management System (LMS)	Functional platform (e.g., Moodle, Google Classroom)		
	Mobile-friendly access	LMS and tools accessible via smartphones and tablets		
Cybersecurity	Network security	Firewall, antivirus, secure Wi-Fi		
	Data privacy compliance	GDPR and institutional policy adherence		
Accessibility & Inclusion	Accessibility standards	WCAG 2.0 compliant tools and platforms		

	Support for users with disabilities	Assistive tech, captions, alternative formats		
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**Consult a professional*

Annex 5: Template for self-reflection and feedback

To support educators and learners in giving useful feedback, a simple template has been created and will be added to the Toolkit's Annex.

Educator Self-Reflection

Educators should complete this section after each session involving digital tools.

1. What digital tool(s) did I use in this session?	
2. What went well? Why?	
3. What challenges or difficulties did I encounter?	
4. How did learners respond to the tool(s)?	
5. What would I do differently next time?	
6. What support or resources do I need to improve?	
Additional comments:	

Learner Feedback

Learners can complete this section after using digital tools in class.

1. Was the digital tool easy to use? (Yes / No / Somewhat)	
2. Did the tool help you understand the topic better? (Yes / No / Not sure)	
3. What did you like most about using the digital tool?	
4. What problems did you have (if any)?	
5. What could be improved?	
6. Would you like to use this tool again? Why or why not?	
Additional comments:	



Glossary

Digital Competence & Literacy

1. **Digital Competence**
The ability to use digital technologies confidently, critically, and responsibly for learning, work, and participation in society.
2. **Digital Literacy**
The ability to find, evaluate, create, and communicate information using digital technologies, including internet platforms, social media, and digital devices.
3. **AI Literacy**
Understanding how Artificial Intelligence works, including its capabilities, limitations, and ethical implications, especially in education and content creation.
4. **Digital Inclusion**
Ensuring that all individuals and communities, including the most disadvantaged, have access to and can benefit from digital technologies.
5. **Lifelong Learning**
The ongoing, voluntary pursuit of knowledge for personal or professional development.

Frameworks & Standards

1. **TPACK (Technological Pedagogical Content Knowledge)**
A framework outlining the knowledge educators need to effectively integrate technology into their teaching.
2. **DigComp**
The European Digital Competence Framework for Citizens, defining five key areas of digital competence.
3. **DigCompEdu**
A European framework specifying the digital competences educators need for effective and inclusive teaching.
4. **DigCompOrg**
A framework guiding the digital capacity and innovation of educational organisations.
5. **SELFIE Tool**
A self-assessment tool by the European Commission to help schools evaluate and improve their digital capacity.
6. **DESI (Digital Economy and Society Index)**
An index by the European Commission tracking the digital performance of EU countries.

Learning Modalities

1. **Online/Distance Learning**
A method of learning where lessons are delivered remotely, often through digital platforms, without the need for physical attendance.

2. **Blended Learning**
A mix of online and face-to-face instructional methods in a complementary flow.
3. **Hybrid Learning**
A model combining in-person and online elements, often delivered simultaneously in real-time.
4. **Flipped Learning**
A strategy where students study learning materials before class, using classroom time for active, collaborative learning.
5. **Microlearning**
A strategy that delivers small, focused learning units that can be accessed anytime and repeated as needed.
6. **Synchronous Learning**
Learning that occurs in real-time, such as through live online sessions.

Technology in Education

1. **Technology-Enhanced Learning (TEL)**
The use of digital tools—like tablets, laptops, or learning platforms—to enrich educational experiences.
2. **EdTech (Educational Technology)**
Digital tools, apps, or platforms used to enhance teaching, learning, and administration.
3. **Learning Management System (LMS)**
A software application for managing and delivering online learning, including courses, assessments, and resources.
4. **Cloud-Based Platforms**
Online services that host tools and content, accessible via the internet from any device.
5. **Assistive Technology**
Devices or software that help individuals with disabilities access digital content and participate fully in learning.

Roles & Practices

1. **Digital Mentor**
A peer or staff member with advanced digital skills who supports colleagues by mentoring, modelling best practices, and introducing new tools.
2. **Digital Leadership**
Visionary and empathetic guidance from institutional leaders to promote digital innovation and manage change.
3. **Learning Community**
A collaborative group of educators or learners who share knowledge, reflect, and grow around common goals.

Tools & Legal Considerations

1. **Assessment Tools**
Instruments or software used to evaluate learners' performance, institutional readiness, or

needs.

2. **Creative Commons License**
A type of license that allows users to use and adapt content under specified conditions.
3. **Open-Source Software**
Software with freely available source code that can be modified and redistributed.
4. **Metadata**
Information that describes other data, often used to manage digital content.
5. **Cybersecurity**
Measures taken to protect systems, networks, and data from digital threats or unauthorised access.
6. **GDPR (General Data Protection Regulation)**
EU legislation that governs personal data protection and privacy.

Emerging Concepts

1. **AI (Artificial Intelligence)**
The simulation of human intelligence in machines, enabling decision-making, personalisation, or automation in education and beyond.
2. **Digital Transformation**
The integration of digital technologies across all areas of an institution, reshaping its operations and delivery methods.
3. **Micro-credentials**
Short, verifiable qualifications that recognise specific skills or competencies, often earned through professional development.
4. **Human-Centric Design**
A design philosophy that prioritises the needs, behaviours, and limitations of users.

Digital tools

Name of digital tool	CANVA FOR EDUCATION
Description	A graphic design tool that provides free access to premium features for teachers and students, tailored for educational content creation.
Pros (and restrictions in use)	<ul style="list-style-type: none"> ● Intuitive drag-and-drop interface ● Free for K–12 teachers and students ● Offers templates for presentations, infographics, posters, etc. ● Restriction: must verify educational email to access full features
Cons	<ul style="list-style-type: none"> ● Limited advanced editing tools compared to professional graphic software ● Internet connection required to use fully
Objectives / Purpose	Supports visual learning by helping students and educators create engaging educational materials, fostering creativity in projects, presentations, and digital storytelling.
Tutorials	https://www.youtube.com/watch?v=gIcFqbIFGa8&list=PLATYfhN6gQz8yaYel2xeR95daPcAf18HD
Link	https://www.canva.com/education/

Name of digital tool	MOODLE
Description	A widely-used open-source learning management system (LMS) that enables educators to create personalised learning environments for their students.
Pros (and restrictions in use)	<ul style="list-style-type: none"> ● Highly customisable with a wide range of plugins ● Supports quizzes, assignments, forums, and grading ● Used globally with multilingual support ● Restriction: requires server setup and maintenance (unless hosted by a provider)

Cons	<ul style="list-style-type: none"> • The interface may feel outdated or complex for new users • Some technical knowledge is needed for setup and advanced customisation
Objectives / Purpose	Helps educators deliver course content online, track student progress, and facilitate collaborative learning through discussion forums, assignments, and interactive activities.
Tutorials	https://www.youtube.com/watch?v=mFNmGemX_no
Link	https://moodle.org/
Name of digital tool	PADLET
Description	A collaborative digital wall tool that allows users to post text, images, links, videos, and documents in real time. Ideal for brainstorming and sharing ideas.
Pros (and restrictions in use)	<ul style="list-style-type: none"> • Very easy to use • Supports real-time collaboration • Visually appealing interface • Works on all devices •
Cons	<ul style="list-style-type: none"> • Limited number of padlets in the free version • Requires registration to edit content
Objectives / Purpose	Encourage collaborative learning, gather feedback, brainstorm, share reflections, and organise interactive sessions.
Tutorials	https://www.youtube.com/watch?v=UkBnwPqaljA
Link	https://padlet.com

Name of digital tool	CLASSROOMSCREEN
Description	A visual tool for teachers that displays widgets such as timers, traffic lights, random name pickers, whiteboards, and polls to help organise classroom activities.
Pros (and restrictions in use)	<ul style="list-style-type: none"> • Quick access without login • Intuitive user interface • Enhances classroom structure and focus

Cons	<ul style="list-style-type: none"> • Some advanced features require a paid version • Limited customisation in free version
Objectives / Purpose	Improve structure and student engagement in lessons, support classroom management, and provide visual signals and timers for smooth lesson flow.
Tutorials	https://www.youtube.com/watch?v=OSrjNl6zEZg
Link	https://www.classroomscreen.com

Name of digital tool	MENTIMETER
Description	Interactive presentation tool that allows users to engage audiences through live polls, quizzes, and Q&A sessions.
Pros (and restrictions in use)	<ul style="list-style-type: none"> • User-friendly interface for live interaction • Real-time visual feedback from participants • Works across different devices and browsers
Cons	<ul style="list-style-type: none"> • Limited features in free version • Requires stable internet connection
Objectives / Purpose	<ul style="list-style-type: none"> • Increase engagement in online and hybrid learning • Gather real-time feedback or opinions • Facilitate audience interaction and brainstorming
Tutorials	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=W79AXvYVjQs • https://www.mentimeter.com/features/ai-builder
Link	https://www.mentimeter.com/

Name of digital tool	KAHOOT
Description	Game-based learning platform that lets users create and play quizzes to reinforce knowledge and assess learning in an engaging format.
Pros (and restrictions in use)	<ul style="list-style-type: none"> ● Gamifies learning for high engagement ● Mobile and web compatibility ● Includes pre-made quizzes
Cons	<ul style="list-style-type: none"> ● Limited custom features without subscription ● Fast pace can stress some learners
Objectives / Purpose	<ul style="list-style-type: none"> ● Assess knowledge retention playfully ● Encourage competition and active recall ● Support blended and remote instruction
Tutorials	<ul style="list-style-type: none"> ● https://www.youtube.com/watch?v=pAfnia7-rMk ● https://create.kahoot.it/discover
Link	https://kahoot.com/

Name of digital tool	NEARPOD
Description	An interactive presentation and engagement platform designed for educators. This platform enables teachers to create and deliver engaging lessons that incorporate interactive elements. Educators can assess student understanding and gather feedback effectively. With Nearpod, teachers can design lessons using a variety of activities, including quizzes, polls, interactive videos, and more.
Pros (and restrictions in use)	<ul style="list-style-type: none"> ● Ensures full student participation and accountability in learning. ● Provides immediate feedback and access to post-session reports. ● Enhances learning ownership through Student Notes and synchronous devices.

Cons	<ul style="list-style-type: none"> • Depends on a stable internet; may slow down with poor connections. • The free version has limited features and storage, and subscriptions can be costly. • Real-time activities are available, but anonymous assessments aren't possible.
Objectives / Purpose	To boost student engagement and give teachers real-time data for effective instruction. It aims to make lessons more interactive and enhance learning outcomes.
Name of digital tool	H5P
Description	H5P (HTML5 Package) is an open source tool that lets users create, share, and reuse interactive HTML5 content. It helps make online learning more engaging with content types like videos, quizzes, presentations, and games. H5P content works well on different devices, ensuring a good experience whether on a computer or mobile.
Link	https://www.yousube.com/watch?v=N199Ebn1Bt0
Pros (and restrictions in use)	<ul style="list-style-type: none"> • Engaging interactive elements enhance user experience. • Easy-to-use content editor allows for versatile course design. • Completely free and browser-based, with no extra apps required.
Cons	<ul style="list-style-type: none"> • No auto-save - manual saving required, risking lost progress. • Limited content library - users must supply their own images and videos. • No survey tools, lacks features for evaluating learner understanding. • No screen recording - cannot create software demos or tutorials. • Limited customisation, no custom content types on H5P.com, only style changes allowed. • Compatibility issues, users report glitches on various devices and browsers. • Time-consuming - creating interactive elements needs more expertise than static content.
Objectives / Purpose	H5P aims to create engaging online learning experiences. It helps educators design interactive multimedia resources that encourage participation and improve knowledge retention.
Tutorials	Find numerous tutorials on how to create content with H5P on this link: https://h5p.org/documentation/for-authors/tutorials
Link	https://h5p.org/

AI-based tools

Name of digital tool	ChatGPT
Description	An AI-powered language model that generates text, answers questions, explains topics, helps create learning materials, quizzes, and more through natural language interaction.
Pros (and restrictions in use)	<ul style="list-style-type: none"> - Fast access to explanations and summaries - Supports multiple languages - Useful for both educators and learners
Cons	<ul style="list-style-type: none"> - Knowledge cutoff (free version is not connected to current data) - Can generate incorrect or biased responses - Requires critical thinking from users
Objectives / Purpose	Assist with content creation, text summaries, language practice, personalised tutoring, quiz generation, translation, and critical thinking development.
Tutorials	https://www.youtube.com/watch?v=JTxsNm9ldYU
Link	https://chat.openai.com

Name of digital tool	Napkin AI
Description	A note-taking and idea-generation app that uses AI to connect concepts and inspirations automatically, helping users build on thoughts over time.
Pros (and restrictions in use)	<ul style="list-style-type: none"> ● AI connects related notes automatically ● Minimalistic and distraction-free interface ● Good for creative thinking and writing workflows ● Restriction: best used for individual ideation, not collaborative work
Cons	<ul style="list-style-type: none"> ● Limited formatting or exporting options ● Not ideal for structured academic note-taking

Objectives / Purpose	Helps learners and educators develop and expand ideas over time by making connections between thoughts, supporting long-term creative or academic projects.
Tutorials	https://www.youtube.com/watch?v=vd0Jyeto4JA
Link	https://www.napkin.ai/

Name of digital tool	GRAMMARLY
Description	An innovative writing tool that assists users in enhancing their grammar, spelling, punctuation, and overall clarity. It analyses sentences and offers real-time suggestions for corrections and improvements.
Pros (and restrictions in use)	<ul style="list-style-type: none"> • Enhances writing by offering real-time grammar and spell checking, style suggestions, and plagiarism detection. • The tool is user-friendly and includes a free version along with a premium upgrade. • It integrates seamlessly with popular platforms, making it convenient for various writing tasks.
Cons	<ul style="list-style-type: none"> • Hinders learning, the corrections can diminish students' active revision skills and analytical development. • Accuracy and style limitations - it may miss errors and standardise writing, limiting students' unique voices and understanding of diverse styles. • Academic integrity issues - using Grammarly in assessments can raise concerns about honesty, as it may not reflect a student's own ideas, providing mostly quantitative rather than qualitative feedback for teachers.
Objectives / Purpose	Enhances the writing skills and communication proficiency of students, faculty, and staff. It aims to provide AI-powered writing assistance that improves clarity, coherence, and style in academic and professional contexts. By offering immediate suggestions and feedback, Grammarly helps users learn and apply grammar, punctuation, and writing style rules, ultimately contributing to a more robust academic and professional environment.
Tutorials	Playlist of Grammarly tutorial videos on YouTube Tips and Tutorials
Link	https://app.grammarly.com/

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