Integrating emerging technologies in adult education

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Emerging Technologies for Holistic Literacy in Adult Education

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Introduction

In the context of the ETHLAE (Emerging Technologies for Holistic Literacy in Adult Education) project, the consortium developed a MOOC course available at the learning platform EAEA, launched in January 2026.

This course aims at supporting educators to understand and implement emerging technologies in adult education, specifically designed to support holistic literacy programmes for adults in vulnerable situations. Drawing from the ETHLAE project's research and practice, the course **explore how to embed emerging technologies in Adult Learning and Education (ALE) contexts**.

This document features the main information of the MOOC in an accessible way. However, we encourage you to enroll in the MOOC in the EAEA platform in order to participate and discuss with other educators from across Europe.

The Challenge we're addressing

Emerging technologies such as AI, IoT, AR/VR, and robotics offer a wide range of potential applications within all sectors of learning and education, and society at large, shaping the way that we perceive the world around us and establishing new grounds of critical engagement. While these technologies have been mapped and explored in various projects and initiatives, there is an **identified gap in the pedagogical approaches** to embed them effectively in **adult learning and education contexts.**

As highlighted in the European Commission's "On the Futures of Technology in Education: Emerging Trends and Policy Implications" report, this gap is particularly evident in the provision of inclusive and accessible holistic literacy and life skills programs. The ETHLAE project was created specifically to bridge this gap.

🔗European Commission's "On the Futures of Technology in Education: Emerging Trends and Policy Implications" report

What do we mean with holistic literacy?

Holistic literacy goes beyond basic skills, but also encompasses personal, social and learning to learn competence, and other lifelong learning competences such as financial literacy, health and environmental, entrepreneurship and cultural awareness and expression. A set of competences which are essential for navigating contemporary digital and social environments. For adults in vulnerable situations, developing holistic literacy is essential for social inclusion, civic participation, economic opportunities, and personal empowerment.

This understanding draws on and aligns with several key European frameworks:

🔗LifeComp framework for the personal, social and learning to learn key competence
🔗Council Recommendation on Key Competences for Lifelong Learning
🔗Basic skills EU definition

Note: Throughout this course, we maintain a special focus on adults in vulnerable situations, including: adults with low literacy levels and with limited digital skills, unemployed or economically disadvantaged adults.

About the ETHLAE project

Emerging Technologies for Holistic Literacy in Adult Education (ETHLAE) is an Erasmus+ project that aims to support systemic change for Adult Learning and Education (ALE) organisations in embedding technologies in the delivery of holistic literacy programmes for adults. The project brings together expertise from multiple countries to support peer-learning and capacity-building activities among organisations and individuals across different contexts.

ETHLAE's Mission: To help ALE educators design and deliver holistic literacy education programmes that embed emerging technologies in a meaningful and accessible way, with a focus on considering social, contextual, economical and personal needs of learners.

🔗Official website of the ETHLAE project

Why does this course matters

This course addresses the critical need for pedagogical frameworks and practical strategies to integrate emerging technologies into adult education. You will learn not just about the technologies themselves, but how to use them purposefully to:

- Support diverse learning needs and styles
- Create inclusive learning experiences for adults in vulnerable situations
- Address barriers to learning related to accessibility, economics, and digital divide
- Design and adapt learning scenarios targeting adults from vulnerable contexts
- Build capacity within your organisation for meaningful technology integration

Who should take this course? It is designed primarily for ALE educators and trainers working in formal and non-formal settings, learning designers and anyone committed to inclusive, accessible adult education.

No prior technical expertise is required. Take what you want from this MOOC: learn about how emerging technologies are used in each country, get to know a new digital tool or download and adapt one of the learning scenarios to your context!

What you will learn

By the end of this course, you will be able to:

- Understand the pedagogical gap in embedding emerging technologies in ALE contexts in different countries
- Identify multiple digital resources useful for the education context
- Design and adapt learning scenarios that embed emerging technologies
- Support the capacity-building of your organisation

Index: The course is structured around the key objectives of the ETHLAE project:

- Research on the use of emerging technologies in adult education
- Resources, tools and articles on emerging technologies
- Learning Scenarios to inspire and support educators
  - Learning area 1: Literacy and Numeracy
  - Learning area 2: Personal, Social and Learning to Learn
  - Learning area 3: Digital communities
  - Learning area 4: Sustainability
  - Learning area 5: Democracy
- Wrapping up and final words

Research on the use of emerging technologies in adult education

This first section focuses on the research conducted on how emerging technologies are currently integrated in education, specifically in adult education, in 6 countries (and overall at EU level).

Participating organisations analysed educational policies and initiatives concerning digital technologies, gathered methods and good practices for the use of emerging technologies in the education setting at large and reflected on the main enablers and obstacles to the use of emerging technologies in the context of adult learning, exploring the real needs of learners.

What to Expect:

- Learn about the reality of six different countries, plus of the EU level
- Explore multiple barriers adult learners face in accessing digital education
- Reflect on the difference between technology access and meaningful technology integration

How was this research conducted

This research was conducted through **semi-structured interviews** with ALE educators, organisation representatives, learners, decision-makers and digitalisation specialists; **reviewing literature and desk research**, and **identifying useful case studies and best practices**. Participating organisations analysed the cases of Austria, Croatia, Finland, Romania, Switzerland, United Kingdom and EU level, with almost 50 practitioners interviewed and hundreds of pages read.

The collection and analysis of relevant existing methods, **good practices and tools** is based on the existing work on emerging technologies in the education setting at large, also from other sectors, such as schools, Higher Education and Vocational Training and Education, which will support the development of learning scenarios for adult learning.

An exploration and scoping activity was also conducted to contextualise **the implementation** of emerging technologies in literacy programmes for adults, **identifying the main enablers and obstacles**. By examining existing frameworks and practices, opportunities for learning improvements in adult education through emerging technologies can be identified, which will now be explored.

Findings highlight a growing awareness of the importance of digital transformation, accelerated by the COVID-19 pandemic, yet reveal uneven levels of readiness across regions and institutions.

Common obstacles include underdeveloped digital infrastructure, lack of training for educators and other ALE practitioners, fragmented policy frameworks, and limited long-term funding. However, promising initiatives have emerged through European and national strategies, NGO-led projects, and public libraries as community digital hubs. Stakeholders consulted emphasise that for a better integration of emerging technologies into adult learning ecosystems, there is a need to focus on systemic approaches, inclusion and ethics.

Interviews with educators, representatives of ALE providers or non-profit organisations and learners revealed that meaningful digital inclusion requires much more than access to devices or tools. Adult learners, particularly migrants, individuals with lower economic status , and those with lower qualifications, face intersecting barriers such as mistrust, language challenges, lack of confidence, and digital bureaucracy. Holistic approaches that build trust, foster learner agency, and embed digital skills into real-life contexts are essential. Learners consulted value clear, slow-paced instruction delivered in safe, relational environments, and benefit greatly from peer support and co-designed learning experiences.

6 key findings of our desk and field research

#01 Emerging technologies hold promise, but are unevenly integrated

Technologies like AI, learning platforms, and data-driven tools can enhance access and personalisation in adult learning. However, integration is inconsistent across countries and institutions, often hindered by poor infrastructure, lack of training, fragmented policies, and short-term funding.

As one educator expressed: "*We have centres experimenting with AI and adaptive learning, but others can't even guarantee stable Wi-Fi*."

Reflection questions:

What infrastructure challenges exist in your context? How do they affect your ability to integrate technology into learning programmes?

#02 Digital inclusion is about more than access

Providing devices is not enough. Digital exclusion is linked to confidence, motivation, trust, and support structures. Adults from vulnerable groups or in vulnerable contexts face multiple intersecting barriers: digital, social, and emotional. Supporting systems and safe learning environments is more important than the technology itself, as one-size-fits-all approaches do not adequately support adult learning..

A learner shared: *"I don't want to click on something and lose money or send the wrong document. Who can help me if I get it wrong?"*

Reflection questions:

Even when adults have access to devices and the internet, can they operate those devices safely? Do learners see the relevance of digital skills to their lives? Is help available when learners encounter problems and do they feel like experimenting and making mistakes without judgment?

#03 A holistic approach to literacy is critical

Digital skills are ever more important, but learning them as an adult is most effective when embedded in real life situations. Learning digital skills should be done in a contextualised way, and in an emotionally safe environment. Context is key when referring to adult learning. These skills can be developed through social interaction and collaborative learning and included in current tasks connected to learners' lives (looking for information, contacting a family member, sending information to a doctor via email).

"Digital tools can't fix a lack of trust", one stakeholder reflected, *"what learners need first is a safe space – then they can start experimenting, clicking, making mistakes."*

Reflection questions:

Are learners comfortable using basic digital tools for everyday communication? Can a specific technology or tool serve a meaningful purpose or solve a specific problem for the learner?

#04 Educators need training and support

Many educators feel unprepared to use emerging technologies meaningfully and in an inclusive way. There's a strong need for capacity-building in digital pedagogy, especially for working with vulnerable groups. Many educators did not receive training in digital pedagogy during their initial education and are expected to learn through professional development, self-study, or trial and error. More materials and resources are necessary to ensure educators feel comfortable in including emerging technologies into their pedagogical practices.

"We don't have enough pedagogical resources", one educator said, *"we're good at improvising, but that's not a sustainable strategy."*

Reflection questions:

Are you comfortable with digital tools from a perspective of pedagogy? Can you identify some tools that could be useful for your work with learners (not solely for administrative purposes)? Does your organisation provide training opportunities?

#05 Policy and practice must align

While national and EU policies emphasise digital transformation, implementation often lacks systemic support. Long-term impact depends on sustainable policies, cross-sector collaboration, and ethical use of emerging technologies. Policies developed without practitioner input can increase this gap between policy and practice, as well as the lack of sustainable funding models.

One participant noted: *“We saw a surge in digital adoption, “but much of it was driven by emergency needs, not by long-term planning or systemic change.”*

💭 **Reflection questions:**

Do you know about the educational policies connected to digital skills and use of emerging technologies in your country or region? What are the practical barriers you see in implementing some of these policies?

#06 A pedagogical and ethical lens is essential

Emerging technologies should be treated not as ends in themselves but as tools for empowerment and inclusion. Ethical, context-aware use of tech is needed to promote social cohesion and digital citizenship.

One educator said: *"If we only teach them how to use a platform, we're missing the point. We need to build trust, motivation and a sense of belonging. That's where learning really starts."*

💭 Reflection questions:

Ask yourself questions before integrating any technology: Why this technology and what learning goal does it serve? Who might be excluded? At what stage of learning is using this tool or resource appropriate? In the question of ethics, remember to reflect on how learner data is collected and if the technology might perpetuate or amplify existing inequalities?

Country-specific information

Research was conducted in **Austria, Croatia, Finland, Romania, Switzerland and the United Kingdom**, which resulted in a full report and individual reports for countries. There is also a report on the **EU level**, analysing EU education policies and good practices from countries outside the project participants.

Differences are found between countries in terms of concrete policies targeting digital education and the use of emerging technologies (especially Artificial Intelligence), infrastructure and resources and training for educators and other practitioners. Funding differences are also observed, as well as the digital skills of learners.

🔗D2.2. ETHLAE Report on methods for holistic literacy and emerging technologies in Adult Learning and Education

Report from Austria

Report from Croatia

Report from Finland

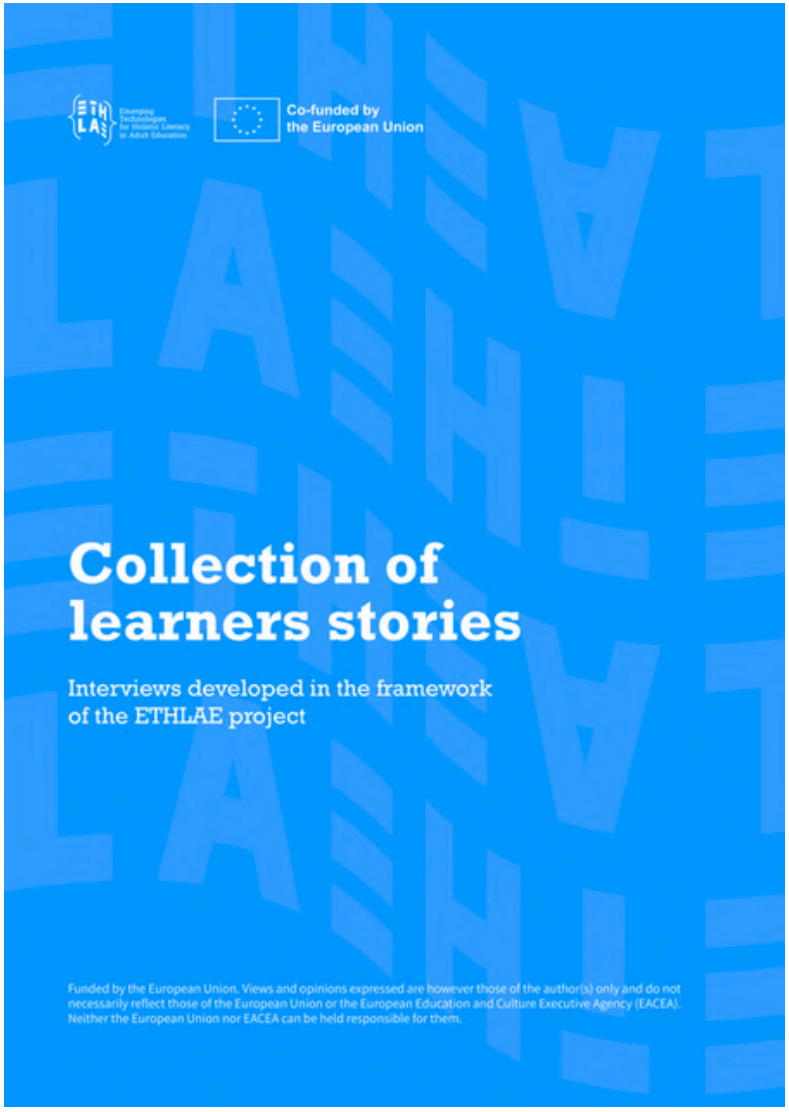
Report from Romania

Report from Switzerland

Report from the United Kingdom

🔗 Report on the EU level

🔗 Extra: collection of learners stories



Conclusions and reflections

In conclusion, the ETHLAE field research confirms that while emerging technologies hold promise for expanding access and personalising learning in ALE, their effective use depends on a **thoughtful, systemic implementation grounded in pedagogy** and learner realities. The findings call for investment in educator training, co-creation with learners, inclusive digital infrastructures, and sustainable policies that support long-term innovation and equity in adult learning across Europe.

The research hints at the need for significant investment in educator training that goes beyond technical skills to encompass digital pedagogy and inclusive teaching practices. Educators need support and opportunities for professional development to feel confident in integrating emerging technologies in ways that truly serve the learners. **Co-creation approaches with learners** are essential, as adult education must be designed around real-life contexts. Thus, digital technology cannot simply be used without adaptation, and learners should be consulted about what they believe is the most interesting and important tool to explore. Programmes should also build on learners' existing knowledge and experimentation and should encourage a safe space for experimentation and mistake-making.

Digital infrastructure is also necessary to ensure all learners can participate. This means not only providing access to devices and reliable internet, but also ensuring platforms are accessible, user-friendly, and available in multiple languages.

Finally, **sustainable policies** that support long-term innovation and equity in adult learning across Europe are crucial. Short-term funding and fragmented policy frameworks undermine progress. What is needed are coherent strategies that align policy with practice, involve practitioners in decision-making, and prioritise ethical, learner-centred approaches to technology integration. Only through such systemic change can emerging technologies truly empower adult learners and contribute to social inclusion, civic participation, and lifelong learning.

Reflection questions: Are there any similarities or differences to the situation in your country? Take a moment to consider the context where you work. Do you know of any practices that you consider good examples of meaningful integration of digital technologies in adult education contexts? Have you designed or been involved in initiatives that embed technology in holistic and inclusive ways? What made these practices successful, and what challenges did you face along the way?

Resources, tools and articles on emerging technologies

Section 2 introduces a **repository of external resources** for educators on technical aspects (how emerging technologies work) and transversal aspects (ethical and legal aspects) related to the implementation of such technologies in (adult) education.

In this part of the course, you can explore **50 external resources, divided into articles, publications, online courses or MOOCs, webinars or videos, online tests and digital tools**. Much is published about emerging technologies every day, especially in Artificial Intelligence. Here, we focus on learning more about emerging technologies which are being used in education and the use of these technologies in educational contexts.

International organisations such as UNESCO published a recent course on AI titled "Digital Empowerment for Adult Educators in the Age of AI", and the European Commission, in partnership with OECD, developed an AI Literacy Framework for Primary and Secondary Education focusing on "Empowering Learners for the Age of AI". Digital tools to support you or the learners, such as NotebookLM, Brisk Teaching or Magic School, are also included in the repository.

What to Expect:

- Learn about the reality of six different countries, plus the EU level
- Explore multiple barriers adult learners face in accessing digital education
- Reflect on the difference between technology access and meaningful technology integration

🔗 Find here the **link to the full ETHLAE repository**!

And in the next slides, find some highlighted resources of the repository with direct links so you can start learning now!

First things first: if educators are expected to use emerging technologies in their learning programmes, they need to be supported with useful and updated training materials. The Teaching and Learning International Survey (TALIS) 2024 shows that one in three (lower secondary) teachers use artificial intelligence in their teaching, but that seven out of ten worry that it facilitates plagiarism and cheating. The data shows that fewer than 20% of teachers in France use AI in their work, and only around 30% of teachers in Denmark and Finland agree that AI assists in creating or improving lesson plans. There is a significant disparity across EU countries. Data from TALIS 2018 showed that fewer than 40% of educators across the EU felt ready to use digital technologies in teaching. Adult educators face further barriers, as most of the training materials are targeting the formal context and often targeting children and/or young people. More needs to be done to support educators who work in adult learning.

Capacity-building programmes are necessary to support educators in learning more about these technologies and how they work, as well as useful and relevant ways to integrate them into their pedagogical work with learners. Educators also need to consider the ethical and legal challenges of using these technologies.

Online courses or MOOCs

The UNESCO Institute for Lifelong Learning (UIL), under the Marrakech Framework for Action and with the support of Shanghai Open University, launched an open-source, online self-paced course: **Digital Empowerment for Adult Educators in the Age of AI and Emerging Technologies**. This course is in English, mobile-friendly and fully accessible offline. It aims to support educators to develop the skills to use technologies in their teaching, improving confidence, but also critical awareness.

🔗 Register and participate here

Elements of AI is a series of free online courses created by MinnaLearn and the University of Helsinki. It aims to teach more about what AI is and what it can (and can't) do, combining theory with practical exercises. It is also a self-paced course, but available in other languages!

🔗 Register and participate on their website

Publications

The **Empowering Learners for the Age of AI** framework is the AI Literacy Framework for Primary and Secondary Education, developed by the European Commission, the Organisation for Economic Cooperation and Development (OECD), Code.org and international experts. This framework outlines the main competences and learning scenarios to inform learning materials and responsible AI policies for primary and secondary education settings. Some of these competences can be adapted to adults.

🔗 Read more on their website

For the more academic educators, the study **Educational Transformation Through Emerging Technologies**: Critical Review of Scientific Impact on Learning analyses the scientific production related to the use of emerging technologies in the educational field, focusing on their impact on the teaching-learning process. It features a literature review from 2000 to 2024. The study shows both interest and concerns about these technologies, highlighting that an informed pedagogical approach is essential.

🔗 Read the full study

Digital tools

Multiple digital tools which use AI and AR (augmented reality) can be found online. Our repository includes some of these tools, which can be used to support the work of the educator or the work of the learners.

🔨 **NotebookLM** converts uploaded material into other formats: podcast-style audio overviews, FAQs or briefing docs.

⚙️ **Magic School** is an AI assistant that supports personalised learning, AI literacy content and allows for the creation of learning opportunities such as escape rooms or choose-your-own adventure stories.

🪚 **Google Arts & Culture** features content from museums, galleries and archives, aiming to preserve the world's art and culture and make it accessible online. It offers multiple options to virtually visit expositions, hang a virtual painting in your own living room, explore objects in 3D and get to know a painting better with the support of AI.

💭 Reflection questions:

1. What resources do you and other practitioners in your organisation currently use that could be valuable in the context of adult education?

2. Think about digital tools that have worked well with your learners, articles or guides that have shaped your pedagogical approach, or platforms that have helped you address specific learning challenges. Have you discovered any resources related to the ethical use of technology or accessibility?

🔗 Find more resources in the **full ETHLAE repository**!

Learning Scenarios: ideas on how to use emerging technologies in adult education

Welcome! In this module, you'll explore learning scenarios that are relevant for the specific needs of the adult education sector (with focus on holistic literacy programmes and adults in vulnerable situations), from the perspective of organisations, learning activities designers, educators and learners.

You can find 10 scenarios, 2 per each of the following areas:

- Literacy and Numeracy
- Democracy and Active Engagement
- Sustainability
- Personal and Interpersonal Capacities
- Digital spaces and communities

Before we dive deeper into each learning scenario, it is important to consider the practical implications of the research elaborated previously, as well as the main insights gathered from educators and other adult learning stakeholders through three meetings with 150+ participants.

The scenarios needed to follow some principles:

- Solutions proposed should work across different resource levels and be adaptable, with low-tech and no-tech alternatives available and considered by the educator
- Technology choices should consider accessibility
- Educators (or peers) need to provide ongoing human support alongside digital tools
- They should be designed to build confidence gradually through small, achievable successes or outcomes
- They should be designed to allow time for skill development at learners' own pace
- Educators, while designing and adapting these scenario examples, should start with learning needs, not available technologies
- Educators can use these scenarios to create spaces for critical discussion about technology's role or use

Learning scenarios

#01: Navigating everyday tasks (Literacy)

This scenario focuses on writing and understanding different texts used in everyday communication and work. These texts include, e.g. emails, forms, instructions, memos, and webpages.

Learning outcomes

- Understand basic structures of different texts.
- Improve skills in writing texts about everyday and work topics.
- Gain basic knowledge in using AI tools in interpreting and writing texts.

Target group: Adult learners with basic digital and literacy skills.
Level: Intermediate
Length: 4 x 120 min
Mode: Both online and in-person

📄Link to the complete scenario

Learning scenarios

#02: Smart money (Numeracy)

This scenario focuses on managing everyday finances.

Learning outcomes

- Understand and apply budgeting principles.
- Interpret financial documents (bills, receipts, online forms).
- Develop confidence in using digital tools for financial management.
- Enhance literacy and numeracy skills through practical tasks.
- Introduce ethical use of AI in learning contexts.

Target group: Adults with low literacy/numeracy skills, including migrants and digitally-excluded individuals.

Level: Intermediate
Length: 90-120 min
Mode: in-person

📃Link to the complete scenario

Learning scenarios

#03: My object, my story (Personal, Social and Learning to Learn)

This scenario focuses on developing social competences of the learners, linking to the social area of the LifeComp framework. The learners present their chosen object to others and practice using digital tools in presenting their stories.

Learning objectives:

- Share personal stories with clarity and confidence
- Collaborate in creating collective digital narratives
- Recognise and express emotions related to memories and experiences
- Use digital storytelling and communication tools

Target group: Adult learners with basic literacy and digital skills, especially seniors.

Level: Easy
Length: 2-4 hours
Mode: In-person

Link to the complete scenario

Learning scenarios

#04: Picture this (Personal, Social and Learning to Learn)

This scenario focuses on developing social competences of the learners, linking to the social area of the LifeComp framework. The learners present their chosen object to others and practice using digital tools in presenting their stories.

Learning objectives:

- Share personal stories with clarity and confidence
- Collaborate in creating collective digital narratives
- Recognise and express emotions related to memories and experiences
- Use digital storytelling and communication tools

Target group: Adult learners with basic literacy and digital skills, especially seniors.

Level: Easy
Length: 2-4 hours
Mode: In-person

Link to the complete scenario

Learning scenarios

#05: Digital spaces, human connections

Building inclusive digital participation skills for adults in vulnerable life circumstances.

Learning objectives

- Use simple digital tools to engage with an online community.
- Identify personal strengths that support participation in digital environments.
- Co-create a simple concept for an inclusive online community.
- Experience how AI tools can assist with communication tasks.

Target group: Adults with low digital competence, socioeconomically disadvantaged, and long-term unemployed.

Level: Intermediate
Length: 90 min or 2 x 45 min
Mode: Both online or in-person

📃Link to the complete scenario

Learning scenarios

#06: Finding your place in digital communities

Recognise how online communities mirror and differ from offline communities, making informed choices about joining online communities.

Learning objectives

- Identify three major types of online community platforms and what they offer
- Evaluate online safety, learn how to protect personal data and privacy
- Navigate the basic features of Facebook Groups, Reddit, or WhatsApp groups
- Know the rights to stay offline

Target group: Adults with limited experience with online communities, but who want to understand their options-

Level: Intermediate
Length: 120-180 min
Mode: Both online or in-person

📄Link to the complete scenario

Learning scenarios

#07: Sustainability on a plate (Environmental sustainability)

This scenario helps adult learners explore how everyday food choices affect carbon footprint, water footprint, and food waste. Participants learn to make informed, sustainable meal decisions.

Learning objectives

- Use an online carbon footprint calculator to compare common foods.
- Design a realistic, affordable 7-day meal plan that reduces environmental impact.

Target group: Adult learners with basic digital skills. Suitable for beginners in sustainability and technology.

Level: Easy
Length: 2 x 90 min
Mode: Both online or in-person

Link to the complete scenario

Learning scenarios

#08: Energy aware at home (Environmental sustainability)

This learning scenario introduces adult learners to the impact of household electricity consumption and demonstrates how AI tools can support cost estimation, energy awareness, and waste reduction.

Learning objectives

- Identify the energy use of common appliances.
- Use AI tools to estimate costs and spot high-consumption devices.
- Interpret data and create a personalised energy-saving plan.

Target group: Adult learners with basic digital skills. Suitable for beginners in sustainability and technology.

Level: Easy
Length: 2 x 60 min
Mode: Both online or in-person

Link to the complete scenario

Learning scenarios

#09: Digital village (Democracy and active engagement)

Participants attend a digital information day in their neighbourhood. They bring their own questions and devices. At the event, they receive individual support from digital experts and educators who are familiar with the use of Emerging Technologies.

Learning objectives

- Promoting democratic discourse, digital participation, self-efficacy and empowerment.
- Strengthening security awareness: Recognition of risks (e.g. downloads, data protection, fake news).

Target group: People with limited digital skills and people who are uncertain about using digital technologies and AI.

Level: Advanced
Length: 3 x 60 min
Mode: In-person

📃Link to the complete scenario

Learning scenarios

#10: My community, my voice (Democracy and active engagement)

This scenario focuses on managing everyday finances.

Learning objectives

- Civic Understanding: Understand personal rights and responsibilities.
- Active Participation: Gain practical skills to engage in local civic life.
- Empowerment: Build confidence to identify and address community issues.

Target group: Adults who want to expand their knowledge of democracy, politics and social structures.

Level: Easy
Length: 3 x 90 min
Mode: In-person

📄Link to the complete scenario

Conclusion

These 11 learning scenarios across five key areas demonstrate ways to include emerging technologies in adult education programmes. From managing personal finances with AI-powered budgeting tools to building connections in digital communities, these scenarios show a multitude of opportunities to consider emerging technologies in adult learning, without focusing solely on the digital technology or resource.

The scenarios are designed to be **adaptable to different contexts** and resource levels, recognising that not every organisation has access to the latest technology. What matters most is the **pedagogical approach**: building learner confidence gradually, providing human support alongside digital tools, allowing time for skill development at each person's own pace, and creating safe spaces for experimentation and mistakes.

These scenarios try to embody the research findings discussed earlier, prioritising accessibility, offering low-tech alternatives, building confidence through achievable outcomes, and, when applicable, creating opportunities for critical reflection about technology's role in our lives. They recognise that adults in vulnerable situations need more than technical instruction; they need **trust, support, peer collaboration, and learning environments where they feel safe to explore**.

Whether you're working on literacy and numeracy, democracy and active engagement, sustainability, personal and interpersonal capacities, or digital spaces and communities, these **examples offer starting points that you can adapt, modify, and make your own with the help of the learners**! We truly encourage you to reflect if there is any example that can be useful in your context. Are there any of the five themes that you want to explore further? You can download or print the examples by simply clicking on each learning scenario available in pdf.

Wrapping up

Thank you for your time and participation! Our goal with this short course is to inspire educators and other adult education practitioners to reflect on the use of technology in their work from the point of view of their pedagogical work, and not simply focus on administrative tasks.

We have explored key research insights that emerged from semi-structured interviews and desk research conducted in Austria, Croatia, Finland, Romania, Switzerland, the United Kingdom (and the EU level), and their implications for practice. We have learnt about what the learners have to say about the use of technology, its benefits and main challenges.

We discovered new resources: online courses, digital tools, articles and publications which can support you in understanding how these new technologies work and then applying them in educational settings. More resources are certainly available online, still waiting to be explored.

Finally, multiple learning scenarios on themes from budgeting to sustainability were presented and are now available online for testing and piloting across Europe. While the scenario instructions are written in English, they can be easily translated into other languages and tailored to different contexts.

We encourage you to experiment with the new resources you have learned about and to adapt any part of a learning scenario to your practice! Feel free to contact EAEA for further information or comments on this work or on the ETHLAE project!

We invite you to reflect on whether and how to integrate emerging technologies in your daily practice and in your organisation. After exploring these learning scenarios, what resonates most with your work context? Have any of the examples sparked ideas for how you might adapt or apply similar approaches with your learners? Ask learners for their point of view and what they need. Discuss with peers and managers how this integration can be meaningful and accessible to all learners.

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