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DIGITAL FACILITATOR FOR ADULTS 55+

Nurturing a Digital Learning Environment for Adults 55+



DIFA



55+



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Digital Facilitator for Adults 55+

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DIFA55+

Nurturing a Digital Learning Environment for Adults 55+

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Abstract	<p>Being digitally competent means having competences in all areas of DigComp: Information and data literacy, Communication and collaboration, Digital content creation, Safety and Problem-solving. More than other demographic categories, adults 55+ have a wide range of levels of digitalization. Depending on their level of competences, individuals may join self-administered online courses to improve their skills, or they may need guidance from adult educators.</p> <p>Taking into consideration the above situation and willing to address adult learners regardless of their initial skill levels, the proposed educational programme is carefully designed for both: self-administrated and educator-led training. It comprises five totally innovative courses that can be separately taught or can be integrated into a complex programme delivered by adult education organizations.</p> <p>In addition, the manual presents the methodology and the instructional design strategy that are the foundation for course development.</p> <p>Understanding that transferability and usability are two of the main benefits of the results of Erasmus+ cooperation projects, the final section of the manual provides an overview of the integration of educational materials in the Moodle learning management system.</p>
Keywords	Adult education, digital transformation, digital tools, digital resources, digital competence, non-formal education, DigComp framework, information and data literacy, communication and collaboration, digital content creation, safety, problem-solving, online assessment, adult learners, adults 55+, elderly, adult educators, digital facilitators

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Summary

Being digitally competent means having competences in all areas of DigComp: Information and data literacy, Communication and collaboration, Digital content creation, Safety and Problem-solving. More than other demographic categories, adults 55+ have a wide range of levels of digitalization. Depending on their level of competences, individuals may join self-administered online courses to improve their skills, or they may need guidance from adult educators.

Taking into consideration the above situation and willing to address adult learners regardless of their initial skill levels, the proposed [educational programme](#) is carefully designed for both: self-administrated and educator-led training. It comprises five totally innovative courses that can be separately taught or can be integrated into a complex programme delivered by adult education organizations.

Chapter 1 introduces the methodology for designing attractive and engaging educational materials for adults' digital skills improvement. The methodology clarifies the inputs, the development process and the expected results. An ample explanation of the five phases of the 5E instructional strategy is presented to help adult educators build a sequence of coherent and engaging learning stages. With this approach, learners are supported to think, work, gather ideas, identify their own skill levels and needs, analyse their progress, and communicate with others under the guidance of educators.

Following up on the proposed methodology, in **Chapter 2** researchers from [Formative Footprint](#) (Spain), [TEAM4Excellence](#) (Romania), [Voluntariat Pentru Viata](#) (Romania) and [Saricam Halk Egitimi Merkezi](#) (Turkey) developed five course modules in line with the [DIGCOMP](#) - Digital Competence Framework for Citizens. These modules address the competence areas of information and data literacy, communication and collaboration, digital content creation, safety, and problem-solving. Each course module comprises digital textbooks, videos, interactive activities and means for evaluation developed using the 5E instructional model strategy.

Understanding that accessibility is one of the main components of lifelong learning education, **Chapter 3** of the manual provides an overview of the integration of educational materials, tools, instruments, video tutorials as well as DIFA55+ web app in the [digital educational ecosystem](#).

Finally, the authors formulate **recommendations** for usability and transferability that go beyond individuals, ensuring that educational materials are user-friendly and effective while making it easier to apply successful pedagogical approaches in other complementary educational contexts or projects.

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Chapter 1. Development methodology

1.1. Aim of the research

Teaching adult learners is a unique and rewarding experience. Unlike teaching children or adolescents, adult learners have distinct characteristics, motivations, and expectations. For this reason, developing attractive educational materials for adult learners requires a thoughtful approach that takes into consideration their specific needs, preferences, and learning styles.

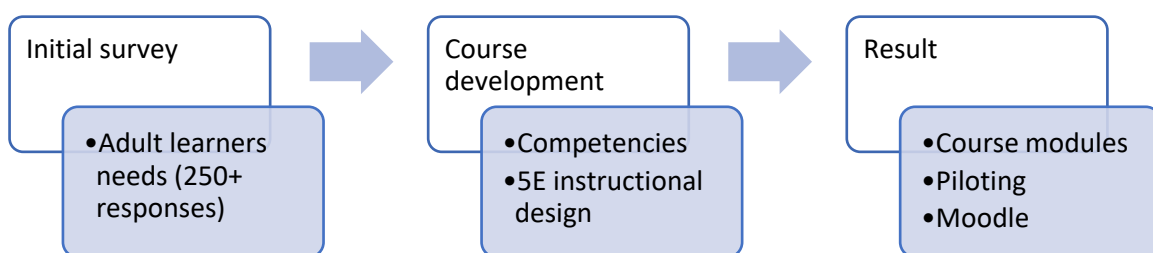
In order to deliver highly attractive and engaging educational materials for adults' digital skills improvement, the research team proposed a detailed methodology for course development.

This methodology clarifies the inputs, the development process and the expected results. An explanatory correlation table is provided to course developers to guide them during course design and to ensure that the educational materials developed are capable of fostering active learning.

1.2. Process for course modules development

Course development is a structured process that involves planning, designing, and creating educational courses to achieve specific learning objectives.

Firstly, the research team conducted a survey to understand the learning preferences and adult learners' needs. Secondly, with the understanding of needs, the course developers reflected on the competencies that they would address. The competencies are selected from the DigComp 2.2 – The Digital Competence Framework for Citizens suggests 21 areas of competencies. Therefore, guided by the 5E instructional design, the course developers designed activities for face-to-face and online learning that enhance the ability of adult learners to face the challenges of the digital world. Finally, pilot tests of the course have been conducted with small groups of learners to identify and address any issues or areas for improvement. The revised version is integrated and fully functional in the Moodle learning management systems.

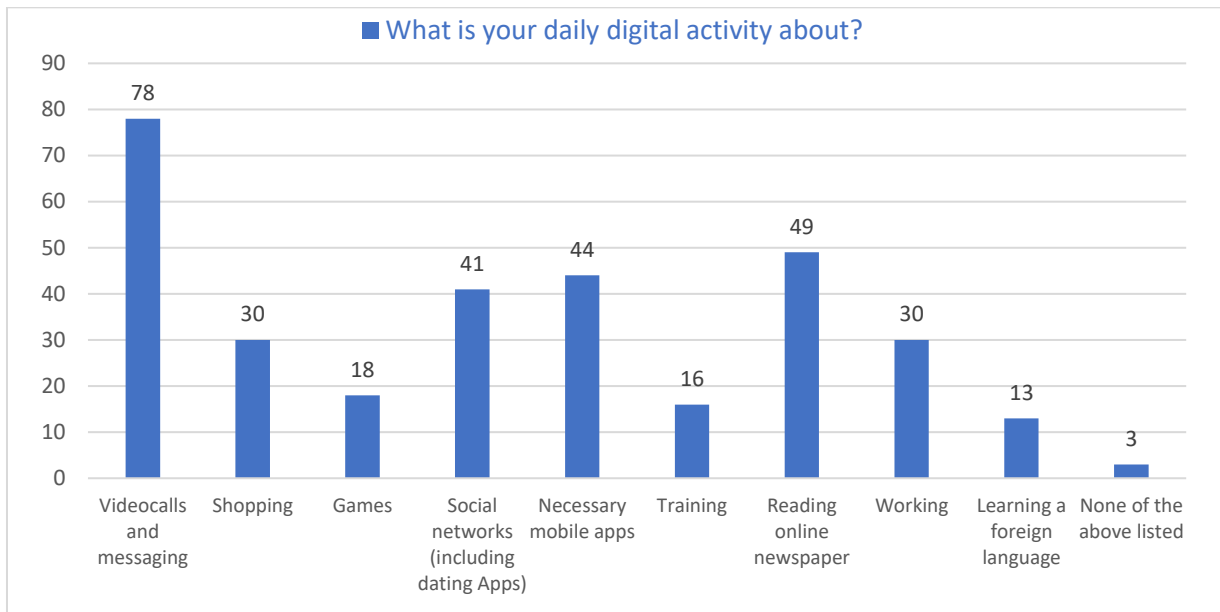


1.2.1. Initial Survey

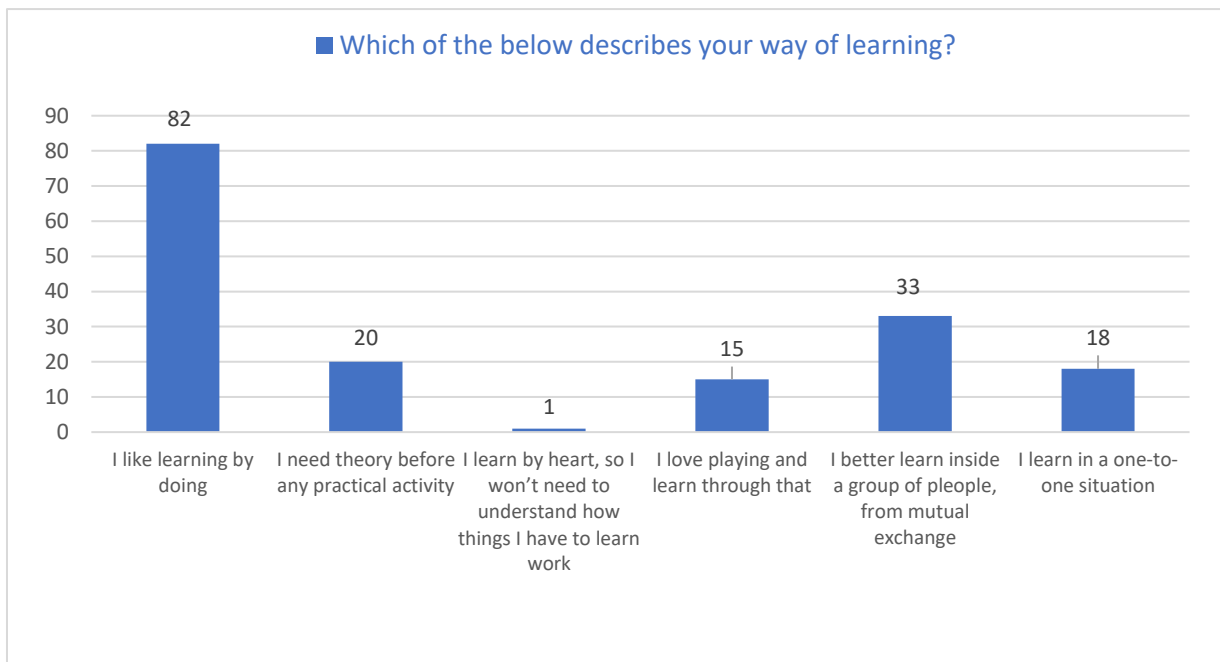
During the period November 2022 - May 2023, DIFA55+ project partners consulted more than 250 adult learners and adult educators to understand their accessibility, openness to education, level of digitalization, potential areas of improvement as well as their expectations from educational programs.

Based on the responses regarding the daily digital activities as well as the ways of learning preferred by adult learners, the course developers get a full understanding of the learning needs. Further, these

need help to select course and activity topics, formulate engaging questions and design practical exercises. The tables below summarize the responses collected from respondents:



More than half of respondents prefer to learn by doing, therefore, the practical exercises proposed by the course developers should be designed to provide adult learners with brainstorming opportunities, hands-on experiences, the possibility to present their achievements, as well as peer feedback during de-briefing sessions.



1.2.2. Course development

Considering the responses and taking into consideration the Digital Competence Framework for Citizens (Riina Vuorikari, 2022), the next step is dedicated to agreeing on the curriculum framework.

The framework would address all five digital competences (column 1, table 1) at a level that is relevant for the target group of adults (column 2, table 1).

Competence Area Dimension 1	Competence Area Dimension 2
1. Information and data literacy	1.1. Browsing, searching and filtering data, information and digital content
	1.2. Evaluating data, information and digital content
	1.3. Managing data, information and digital content
2. Communication and collaboration	2.1. Interacting through digital technologies
	2.2. Sharing through digital technologies
	2.3. Engaging in citizenship through digital technologies
	2.4. Collaborating through digital technologies
	2.5. Netiquette
	2.6. Managing digital identity
3. Digital content creation	3.1. Developing digital content
	3.2. Integrating and re-elaborating digital content
	3.3. Copyright and licences
	3.4. Programming
4. Safety	4.1. Protecting devices
	4.2. Protecting personal data and privacy
	4.3. Protecting health and well-being
	4.4. Protecting the environment
5. Problem-solving	5.1. Solving technical problems
	5.2. Identifying needs and technological responses
	5.3. Creatively using digital technologies
	5.4. Identifying digital competence gaps

Table 1. DigComp Competence Area Dimensions 1 and 2. *Source: (Riina Vuorikari, 2022).*

The Digital Competence Framework for Citizens (Riina Vuorikari, 2022) provides inter alia real-world examples that require a certain level of competencies in the above-mentioned areas from 1.1 – 5.4. Considering the scope of the educational programme, to contribute to the improvement of digital skills

of adult learners 55+ and taking into consideration the selected relevant competencies to be improved, the course developers may formulate expected learning outcomes.

To have a full understanding of the reflection of DigComp in daily life, the framework provides use cases, which can assist educators in choosing targets and appropriate learning outcomes of the activity. Below are examples from the area 3 Digital Content Creation:

3.1. Developing digital content

“By the end of the activity, the participants can find out how to create a digital animated presentation, using a video tutorial from YouTube provided by the teacher, to help to present the work to classmates”.

Hint: Adults 55+ can create a presentation about a journey/ or about a local heritage.

3.3. Copyright and licences

“By the end of the activity, the participants can explain which image banks to use to find images that can be downloaded completely free of charge to create a digital animation”.

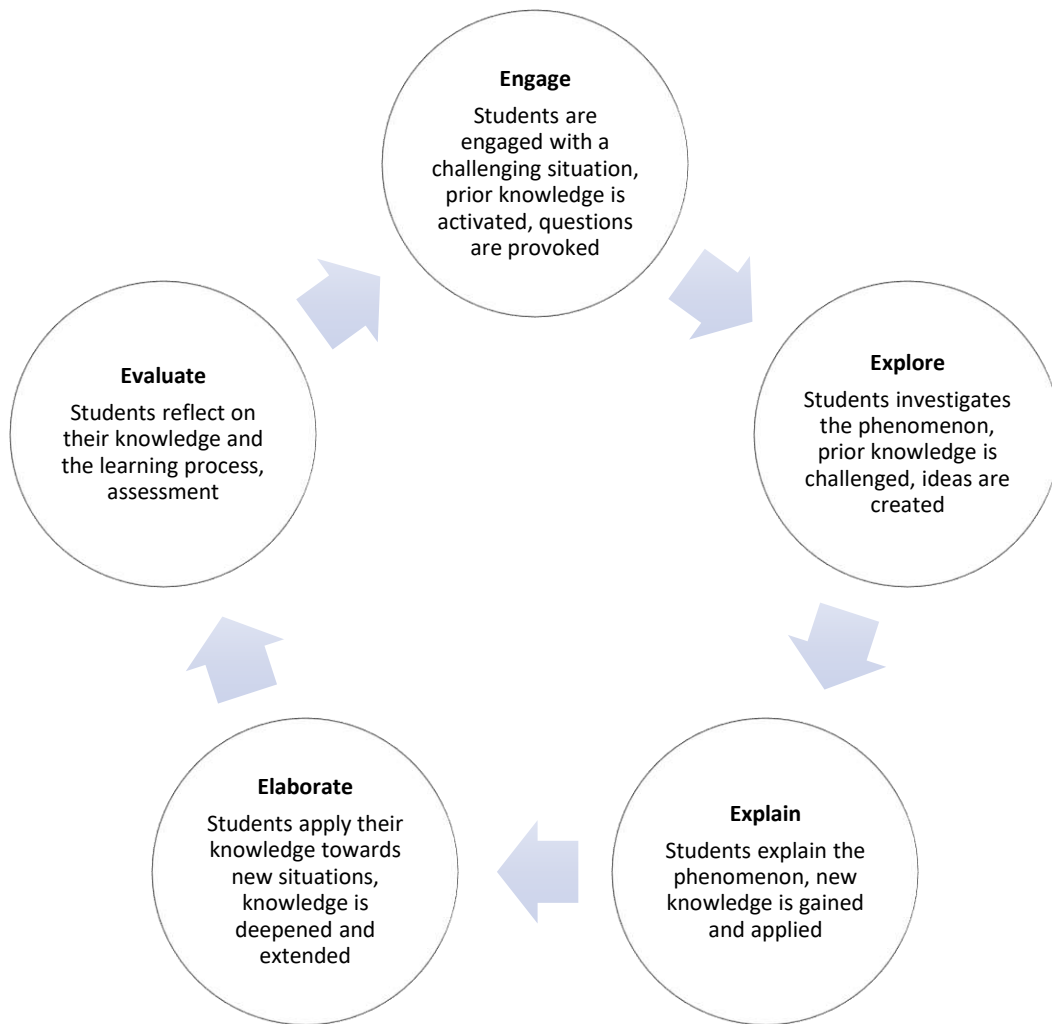
Hint: This can be in connection to the above (from 3.1). If the course attendees are at the advanced level, the course developer can provoke them to create a presentation about a national heritage.

Course developers may take inspiration from these two examples and innovate use cases relevant to their adult learners.

Upon selection of the five areas of competencies and formulating the learning objectives, the course developers start to create or select content that aligns with the learning objectives. This may include textbooks, articles, multimedia resources, and other materials.

5E instructional model

Each course module is developed using the 5E instructional model to Engage, Explore, Explain, Elaborate, and Evaluate learning achievements. The five phases of the 5E instructional design strategy help adult educators build a sequence of coherent and engaging learning stages, while adult learners are fully involved in an inquire-based learning experience. With this approach, learners are supported to think, work, gather ideas, identify their own skill levels and needs, analyze their progress, and communicate with others under the guidance of educators.



Source: (Northern, 2019)

Development of educational materials using the 5E needs slightly different pedagogical approaches, from self-administrated to educator-led training. The below table is intended to clarify how each of the 5Es is integrated into the course activities.

The five E phases	Proposed activities	
	Self-administrated	Educator-led training (practical activity)
Engage Educators use short activities to promote curiosity. The activity must connect prior knowledge to new learning experiences in order to capture learners' attention and stimulate thinking.	Create a question for learners to respond to in the Forum section. Start with "How" or "Why". or Create a quiz with True/False and explain each choice, inviting them to find more in the course. or Notice and wonder. Give them food for thought on the topic	Similar to self-administrated, start by asking the same question or Use a Mentimeter and address the same question
Explore Learners explore new concepts, discover, conflict	Give them to watch a video or read an article (maximum 3 min) Or	Watch a 3-minute video together or

ideas, and address questions to identify what they need to know before new terms or topics are introduced in the Explain phase	Ask them to explore and find an article that addresses the issue Or Ask them to write in a forum what they Know-Want-Learned about that topic, and respond to other 2 colleagues	Involve the group in Brainstorming. Ask them what they think they need to know before new topics are introduced. Be prepared to give them some indications, and responses. (you can distribute post-its for them to have some time to write)
Explain This is a process led by educators, that allows learners to synthesize new knowledge and ask questions if more clarity is needed.	Text lectures and Videos and PPT	Similar to self-administrated, educators explain new concepts and make correlations with the results of explore. Text PPT
Elaborate Learners apply what they have learned. It enables them to develop a deeper understanding while consolidating their skills.	Create a task for independent practice (it shall be about 20 min) Exercise: Give real-world tasks for them to understand the relevance of the new skills	Similar to self-administrated, educators give the possibility for learners to apply and practice their new skills. The same exercise. The difference is that in this activity the adult educators/ facilitators can assist learners
Evaluate Learners evaluate their achievements and demonstrate their understanding of key concepts. Evaluation does not have to be limited to a quiz or test. It can be a product such as a presentation, or a poster. (Gerges, 2022)	4 Multiple Choice Questions (only one response correct) or 4 Matching questions (ABC to be matched with 1234) or Add the missing word	Educators observe their learners during this process to see if they have successfully improved their skills. and Adult learners present the results (few presentations). and Create 2-3 debriefing questions to invite them to reflect and share their thoughts.

Limitations

- The proposed activities in the column “Self-administrated” would be transferred to the Moodle platform, therefore, these need to be compatible with the Learning system capabilities.
- The proposed activities in the column “Educator-led training” are intended to be delivered in 2 hours of face-to-face training (One adult educator, one assistant facilitator and a maximum of 15 adults. For every group of five adults, one more assistant facilitator would be required).

1.2.3. Course modules

Five comprehensive educational materials including digital textbooks, videos, interactive activities and means for evaluation are expected to be designed and delivered.

Transferability and usability are two of the main benefits of the results of Erasmus cooperation projects. In this respect, each of the five course modules is accompanied by a full set of information comprising:

- Written text: defining scope, learning outcomes, teaching content

- Exercises to practice the newly developed skills, key takeaway
- Evaluation questions
- PPT slides: intro, real-life problem, course learning outcomes, course content, key takeaway, standard outro
- Facilitator sheet (for 2 hours activity for face-to-face educator-led training)

Pieces of Advice to support course developers during the creation of the evaluation questions. Being aware of the fact that during online education, the most preferred option for evaluation of learning outcomes is the questionnaire, we propose Multiple Choice Questions (MCQ) and Matching Questions for the actual educational program.

- MCQ shall be developed with three choices, only one correct. (to be avoided: yes, no, maybe)
- Matching questions shall invite the learner to match ABC options to 123 Responses.

Acknowledging that both options usually require learners to remember what they read or what they heard in a lecture, and it is unlikely to give a full understanding of the abilities to apply the newly acquired knowledge, course developers are invited to evaluate at least the understanding of the topic. However, if the questions are well constructed, the MCQ test can be an effective and efficient way to assess learning outcomes, having several potential advantages: versatility, reliability and validity. (Brame, 2013).

Throughout the course development process, the researchers are encouraged to collaborate with subject matter experts, instructional designers, adult educator teams, as well as with Moodle technology specialists to ensure that the course is effectively designed and delivered. By understanding the unique characteristics of adult learners and by creating a supportive team of experts, the learning experience helps adult learners achieve their educational and professional goals effectively.

Chapter 2. Educational programme

The educational program and the courses developed follow Merrill's 5 principles of instruction: problem orientation, activation, demonstration, application and integration (Merrill, 2012). While choosing the topic, questions, exercises, videos as well as all activities, the course developer considered both Merrill principles and 5E instructional (Acomi & all, 2022).

The correlation model summarised in the below correlation table is created to guide educators and gradually check if the proposed programme is sufficiently relevant and engaging for course participants:

Merrill's 5 principles of instruction	The 5E phases	Guidance
Problem-orientation	Engaging	When people are interested in solving problems and creating knowledge, they learn more easily than when they are confronted with the information they are expected to memorize. Therefore, the primary objective should be to help learners develop the skills required to solve real-world problems. Make them understand the problem that they will solve, from the beginning.
Activation	Explore	Too often teaching begins with high-level information. Activation promotes the creation of mental models and structures that can allow learners to integrate new information or skills and interconnect them with prior knowledge. Educators should help learners enable the prior knowledge so that it can be used as a basis for new knowledge. Try to help them to create a framework to connect to new knowledge.
Demonstration	Explain	Include generic and specific information. Several examples relevant are necessary to assist learners with the 'transfer' (applying the new information or skill in new situations). Give particular examples.
Application	Elaborate	Developing a scenario, a problem or a real-world task to be solved are good examples of the application of knowledge.
Integration	Evaluate	Learners reflect on, discuss and defend their newly acquired skill or integrate the skill into a real-world activity. During debriefing, invite learners to think about and analyse what they have learned to revise, synthesize, recombine and change their new knowledge or skills.

The below five fully engaging activities can be implemented by adult educators in face-to-face classes or can be self-administrated by adults willing to boost their digital skills.

A comprehensive educational programme that can be adapted to the learners' needs, adjusted and implemented in different learning environments creating unique learning experiences.

2.1. Information and data literacy

2.1.1. Scope

The scope of this module is to introduce the DigComp area of competence Information and Data Literacy. It also goes through the second dimension of competences that it entails as a part of searching, assessing and managing the type of information and data found in the digital environment.

This module is moreover intended to acknowledge and capacitate educators and, through them, adults to be independent digital users. The focus of the module is on the quality of the information searched, especially the distinction between opinion and fact, which is difficult to detect when the user is not proficient.

All the strategies and techniques useful for the purpose are explained and listed in the format of tips, or even steps to follow and teach gradually the proposed area of competence to a non-digital native adult.

2.1.2. Learning Outcomes

By the end of this module, learners will be able to:

- Identify the information and data they search for;
- Evaluate the quality of such information and data;
- Distinguish between fact and opinion.

2.1.3. Course content

Information and Data Literacy is an area of competence in the European DigComp framework that requires a set of skills, attitudes and knowledge, and the practice of those all, to be developed with proficiency. In today's digital age, where vast amounts of information and data are available, it is essential to have the skills to navigate, evaluate, and effectively use this wealth of resources. Information and Data Literacy empowers individuals to become critical thinkers, discern reliable information, and make informed decisions based on evidence.

This competence area encompasses the ability to identify, locate, evaluate, and ethically use information and data across various digital platforms and technologies. It involves understanding the nature of information, its sources, and its reliability. Data literacy, on the other hand, focuses on understanding and interpreting data, including statistical information and visualizations, to draw meaningful insights and conclusions.

Developing Information and Data Literacy skills enables individuals to become active participants in the digital society. It allows them to critically assess information, distinguish between fact and opinion, detect biases, and make informed judgments. Moreover, it helps individuals effectively manage and organize data, ensuring its accuracy, security, and privacy.

To explain the Information and Data Literacy competence further, we can break it down into a 2nd dimension of competences:

1. **Browsing, searching and filtering data, information and digital content.** This competence involves the ability to search for information effectively using search engines, databases, and

other digital resources, and developing an own method to do that. It includes using appropriate search techniques, refining search queries, and assessing the relevance and credibility of the information retrieved.

2. **Evaluating data, information and digital content.** Evaluating the quality, reliability, and relevance of information is crucial in the digital era since the amount of created information is outstanding. This competence focuses on assessing the authority and expertise of sources, analyzing bias, and critically evaluating the accuracy and currency of information. For this purpose, interpreting the collected data is important, especially in understanding different types of data, interpreting statistical information, and analyzing data visualizations to draw insights and support decision-making.
3. **Managing data, information and digital content.** Once information is gathered, organizing and structuring it in a meaningful way is important. This competence involves techniques for categorizing, tagging, and organizing digital information for efficient retrieval and future reference. Moreover, it is part of this competence to the ethical use of Information and Data, emphasizing the respect of intellectual property rights, adhering to privacy and data protection principles, and promoting responsible digital citizenship.

When it comes to browsing, searching, and filtering data, information, and digital content, there are several useful strategies and tools that can be employed, above listed:

Browsing Techniques:

1. *Start with a clear objective.* Define what you are looking for before you start browsing. Having a specific goal in mind will help you focus your search. For example: "chocolate cake recipe".
2. *Utilize bookmarks and preferences.* Save websites or pages that you find valuable for future reference by using bookmarking features in your web browser.
3. *Explore related content.* Look for suggested or related content on websites, as it can provide additional information or different perspectives on the topic. For example: "vegan chocolate cake".

Search Strategies:

1. *Use appropriate keywords.* Choose keywords that accurately represent the information you are seeking. Be specific and include relevant terms to narrow down your search.
2. *Utilize advanced search operators.* Most search engines support advanced search operators that allow you to refine your search. Examples include using quotation marks for exact phrases, using the "site:" operator to search within a specific website, or excluding certain terms with the "-" symbol.
3. *Explore different search engines.* While popular search engines like Google are commonly used, consider trying alternative search engines that may provide different results or specialize in specific types of content. For example, when searching for academic and/or educational materials based on research, Google Scholar can provide you with authoritative sources and articles of specific interest.

Filtering and Refining Results:

1. *Utilize search filters.* Many search engines provide filters to refine your search results based on criteria like date, location, file type, or language. These filters can help you narrow down results to find the most relevant information.

2. *Assess credibility.* Evaluate the credibility of sources by considering factors such as the author's expertise, the publication's reputation, and the presence of citations or references. Be cautious of biased or unreliable sources.
3. *Explore different media formats.* When searching for information, consider different media formats such as images, videos, or audio recordings, as they can offer diverse perspectives and enhance understanding.

Digital Content Management:

1. *Use content aggregators.* Gather and organize content from various sources in one place.
2. *Employ note-taking and organization tools.* Use digital note-taking apps, bookmarking tools, or cloud-based storage services to save, categorize, and organize digital content for easy retrieval.
3. *Stay updated with alerts.* Set up email alerts or notifications to receive updates on specific topics or keywords of interest.

Critical evaluation of information is everything during the browsing and searching process. Verifying information from multiple reliable sources, and considering cross-referencing to ensure accuracy and objectivity is something that should always be done before inspiring the content creation from those sources.

When it comes to evaluating data, information, and digital content, it's important to adopt a critical mindset and employ effective evaluation strategies. Here are some useful tips for evaluating the credibility, reliability, and relevance of data, information, and digital content:

Source Evaluation:

1. *Assess the author or creator.* Consider the expertise, credentials, and reputation of the author or organization responsible for producing the content. Look for indications of their qualifications and experience in the subject matter.
2. *Examine the publication or website.* Evaluate the credibility and trustworthiness of the publication or website hosting the content. Investigate their reputation, editorial processes, and whether they have a transparent review or fact-checking policy.
3. *Check for bias or conflicts of interest.* Investigate any potential biases or conflicts of interest that could influence the content. Look for indications of sponsorship, advertising, or affiliations that might compromise the objectivity of the information.

Accuracy and Reliability:

1. *Cross-reference with multiple sources.* Verify the information by comparing it with multiple reliable sources. Consistency among different sources increases confidence in the accuracy of the content.
2. *Look for citations and references.* Check whether the content provides citations, references, or links to supporting evidence. These indications of research and sourcing contribute to the credibility of the information.
3. *Consider the timeliness.* Evaluate the currency and relevance of the information. Depending on the subject matter, outdated information may be less reliable or accurate. Follow the usual procedure of searching for sources not older than 5 years, unless the found data are the only ones available.

Content Evaluation:

1. *Analyze the tone and language.* Pay attention to the tone and language used in the content. Assess whether it is objective, balanced, and free from excessive emotional or sensationalistic language.
2. *Check for logical reasoning.* Evaluate the coherence and logical flow of the content. Look for evidence-based arguments, clear reasoning, and avoidance of logical fallacies.
3. *Consider the intended audience.* Assess whether the content is appropriately tailored for its audience. Content that is overly simplistic or excessively technical may indicate a lack of depth or accuracy.

Fact-checking and Verification:

1. *Use fact-checking resources.* Consult reputable fact-checking organizations or websites that specialize in verifying the accuracy of claims or debunking misinformation.
2. *Verify data and statistics.* Scrutinize data and statistics presented in the content. Assess whether the data sources are provided, and consider whether they are reliable and from reputable organizations.
3. *Adopt a critical mindset.* Employing multiple evaluation strategies will help you make informed judgments and ensure that the information you rely on is trustworthy and reliable.

Managing data, information, and digital content efficiently represents the front door for individuals and organizations to make use of that information, and possibly take inspiration for their own digital content. Here are some useful advice on effectively managing these assets:

Data Organization and Storage:

1. *Categorize and label data.* Develop a consistent and logical system for categorizing and labelling data. This makes it easier to locate and retrieve specific information when needed.
2. *Use folder structures.* Organize digital files and documents into a hierarchical folder structure that reflects the content's subject matter or purpose. Consider using meaningful file names to aid in quick identification.
3. *Implement version control.* Maintain different versions of files or documents to track changes and ensure that the most up-to-date version is accessible. Version control systems or software can assist in managing these variations effectively.
4. *Backup and data redundancy.* Regularly back up your data to protect against accidental loss or corruption. Consider utilizing cloud storage or external hard drives to maintain redundant copies of important files.

Information Retrieval and Search-ability:

1. *Implement metadata.* Attach relevant metadata to digital content, including information like title, author, keywords, and descriptions. Metadata improves searchability and facilitates accurate retrieval.
2. *Utilize search tools and features.* Make use of search tools available within operating systems or software applications to locate files and information quickly. Become familiar with search operators and advanced search techniques to refine search queries.
3. *Tagging and keyword usage.* Employ tags or keywords to associate relevant information with files or digital content. This aids in organizing and retrieving specific data efficiently.

Data Security and Privacy:

1. *Implement access controls.* Determine appropriate access levels for different individuals or groups to ensure data security and privacy. Restrict access to sensitive information to authorized personnel only. For example, a picture provides certain content to be analyzed, but that picture can also be accompanied by other data on the searched information, like the date the picture has been shot.
2. *Regularly update security measures.* Stay updated with the latest security patches, antivirus software, and firewalls to protect against potential threats and vulnerabilities.
3. *Data encryption.* Implement encryption techniques to safeguard sensitive data, both during transmission and storage. Encryption adds an extra layer of protection, making it difficult for unauthorized individuals to access the information.

Content Lifecycle Management:

1. *Establish retention policies.* Define retention periods for different types of data or digital content based on legal requirements and needs. Regularly review and dispose of data that is no longer needed or has reached the end of its lifecycle.
2. *Archive and preservation.* Identify valuable or historical data and content that should be archived for long-term preservation. Use appropriate formats and storage solutions to ensure the integrity and accessibility of archived materials.
3. *Data governance and compliance.* Develop policies and procedures to ensure compliance with relevant laws, regulations, and industry standards regarding data management, privacy, and security.

Collaboration and Sharing:

1. *Collaboration platforms.* Utilize collaboration tools and platforms to facilitate teamwork, document sharing, and version control among team members. This improves efficiency and ensures everyone has access to the latest information.
2. *Secure sharing methods.* Implement secure methods for sharing sensitive or confidential data, such as password-protected files or encrypted file-sharing services. Be mindful of data-sharing policies and adhere to any legal or organizational restrictions.

Implementing effective data, information, and digital content management practices, allows individuals and organizations to enhance productivity, protect sensitive information, and ensure efficient retrieval and use of valuable assets. In fact, these latest tips are widely employable to the adult education system, especially when dealing with updating processes, classroom creation, and using collaborative tools.

By developing competences in Information and Data Literacy, individuals can effectively navigate the digital landscape, critically analyze information, and harness the power of data for personal, professional, and social benefit. More specifically, in the case of 55+ adults, it is necessary to learn such competence since, more often, this audience makes use of social networks, websites and platforms without distinguishing the reality from the fake.

Detecting the difference between fact and opinion in the digital environment can be challenging due to the abundance of information and the spread of misinformation. However, there are several strategies you can employ to help discern between fact and opinion:

1. *Consider the source.* Assess the credibility and reputation of the source providing the information. Look for well-established and reliable sources such as reputable news organizations, scientific journals, or government agencies. Be cautious of biased sources, lack transparency, or have a history of spreading false information.
2. *Evaluate the evidence.* Examine the evidence presented to support a claim. Facts are typically backed by verifiable evidence, such as scientific studies, statistics, or official records. Opinion, on the other hand, relies on personal beliefs, experiences, or subjective interpretations. Look for reliable sources of evidence and cross-reference information to validate claims.
3. *Look for objective language.* Facts are usually presented neutrally and objectively, devoid of personal emotions or biases. Opinions, on the other hand, tend to include subjective language, emotional appeals, or value judgments. Pay attention to the language used in the information you come across and assess whether it leans more towards presenting verifiable information or expressing a viewpoint.
4. *Check for consensus.* Consensus among experts or multiple reputable sources can indicate a higher likelihood of factual information. If the majority of credible sources agree on a particular claim, it is more likely to be factual. However, it's important to be cautious of echo chambers or sources that rely on each other without external verification.
5. *Fact-checking tools.* Utilize fact-checking websites or tools that specialize in verifying claims and debunking misinformation. These platforms often provide assessments of the accuracy of certain statements, along with explanations and references. Some well-known fact-checking websites include Snopes, FactCheck.org, and PolitiFact.
6. *Develop critical thinking skills.* Enhance your critical thinking abilities to evaluate information critically. Be sceptical, ask questions, and seek additional sources of information before accepting a claim as a fact. Consider the context, biases, motives, and possible alternative interpretations of the information presented.
7. *Stay curious.* Question information, and continually update your knowledge base to navigate the digital environment effectively. Detecting the difference between fact and opinion requires ongoing vigilance and critical analysis.

2.1.4. Practical exercise

Title: Evaluation of information and data

The exercise is about the evaluation of information and data on a certain given topic. For an educator, it is more difficult to transmit the assessment skill, than the searching and managing information and data since the reliability of the sources is tricky to detect, even for a more expert eye.

The exercise directly refers to the adult learner, and it follows the common 5-W questions used by the press.

You are given two links from your educator. Your job is to enter both of them and distinguish between fact and fake news, as a practice to be able to detect true and verified information from personal opinions.

- <https://zapatopi.net/treeoctopus/>
- <https://www.atlasobscura.com/places/octopus-tree-of-oregon>

What is really existing? A tree octopus or an octopus tree?

How to verify such information and cross-check the provided data?

Follow these steps:

Ask yourself **where** this information is coming from. Observe the URL. Does it look credible?

- You should acknowledge that verified URLs are ending with .org, .com, .edu, .net.
- Some fake URL sounds incomplete or similar to famous websites but with some different letter.

Check **when** the last update of the webpage has been made. Was that recent?

- Sometimes the dates do not even exist on the calendar, such as the 30th of February.
- Some information could be just old, and we cannot take it as still valid.

Search for **who** created that information. Any metadata that can help you understand it?

- Another type of media, such as pictures can help us understand whether the information is edited by a person or that has been artificially created for the purpose (think about artificial intelligence).
- Check if the publisher is somehow related to other better-known and trusted authors.

Analyse **what** the website is talking about, and the appearance it has. Does it look professional?

- Read carefully and highlight possible misspellings and grammar errors. In case you find some, the author definitely doesn't write for a job, but he/she better expresses a personal opinion.
- Analyse the layout and the overall appearance of the web, and its sections: wrong information usually lies on impersonal webpages where no author claims the content, or strange names appear.

Think **why** that content has been delivered. Do you think that makes any logical sense?

- Remember that when it is too good to be true, maybe that information or data is simply not.
- Attempt to cross-check the information by researching the same content on more reliable sources.

Once you have answered all those questions, make your own conclusion, before sharing it with the group.

Definitely, a tree octopus sounds amazing and quite a scientific discovery, but the website that contains that information has a strange name, a cartoonish layout, and, overall, a set of illogical data, almost against nature. Moreover, there is no certain identity of the content author, and the images have a weird quality, which indicates a possible edition of the same.

On the contrary, the octopus tree information seems quite accurate, and the website is trustworthy for its appearance and layout. What is more, the images and the metadata provide the reader with specific information, which can be cross-checked and verified through other sources.

2.1.5. Key takeaway

Information and Data Literacy represents a very important area of competence for the citizen to develop and improve through the practice of browsing, searching, evaluating and managing the information found or to be found in the digital environment. These competences, altogether, should allow each apprentice to become an individual user of technology and all sorts of multimedia content to that related. Finally, the quality of the content searched and found has to be verifiable before its methodical organization, and open to the analysis and identification of whether the information and data are real or just the fruit of personal opinion.

2.1.6. Advice

Whenever this course is provided face-to-face, it is important for the educator to possess visual support to show and explain the content of the training (a PowerPoint presentation, a hard copy of the theoretical part, and enough PCs for the users to do the exercises by themselves).

Moreover, a group dynamic is advisable, especially when performing the practical exercise, so as to gather opinions, knowledge and responses to the general input provided by the educator.

2.1.7. References

Digital Competences Framework (DigComp 2.2) update published - Empleo, Asuntos Sociales e Inclusión - Comisión Europea. (n.d.).

<https://ec.europa.eu/social/main.jsp?langId=es&catId=89&newsId=10193&furtherNews=yes>

Korim, V. & Topcoach. (n.d.). Media literacy, fake news, etc. [Slide show; Powerpoint presentation]. COMMUNICATION INCLUSION Erasmus+ project - LTTA February 2023, Bratislava, Slovakia.

2.1.8. Evaluation questions

1. Choose the right definition. Information and Data Literacy is:

- A. A skill to be developed only at an early age.
- B. An area of competences that is framed in the DigComp.
- C. A single competence that entails the search for it.

2. In order to verify the accuracy of information and data, the most important thing you should do is:

- A. Cross-reference with multiple sources.
- B. Consider the timeliness of the found content.
- C. Look for citations and references that support the evidence.

3. Choose the right statement. A fact is:

- A. Something that someone thinks is true.
- B. Anything claimed on the Internet.
- C. Something proved to be true.

4. Collaborative and sharing tools are advised to be used in information and data literacy management because:

- A. Facilitate teamwork, document sharing, and improve efficiency.
- B. In case a password is lost, someone else can provide it.
- C. Every team member can claim the work of the others.

2.1.9. Facilitation sheet

Title	Information and Data Literacy
Time	3 h
Target group	Seniors Adults 55+
Learning outcomes	<ul style="list-style-type: none"> - Identify the information and data they search for; - Evaluate the quality of such information and data; - Distinguish between fact and opinion.
Materials	<ul style="list-style-type: none"> - Hard copies of the theoretical part of the course; - ppt of the course; - computer/s; - projector.
Facilitation steps	<p>Engage At the beginning of the course, the educator defines the concept of information and data together with the group through a set of questions, such as:</p> <ul style="list-style-type: none"> - What information is for you? - What is your most frequent search on the Internet? - How do you feel about sharing data? <p>This step could also be made by using playful platforms, such as Mentimeter, so as to show the different opinions on the topic and immediately show the results to the attending adult learners.</p> <p>Explore As follows, the educator invites the learners to play a sort of game, where they get to collect personal information from each other by writing down 3 true things about themselves, and 1 lie. Obviously, if the members of the group are familiar with each other, they should make an effort and write down things that no one from the group should know about. Once ready, the learners one by one reveal their list of truths and lies, making the others think about the only lie wrote.</p> <p>Explain By using the ppt presentation, the educator introduces the area of competence and the 2nd dimension key competences so relevant for the learner to become an independent user of the digital environment and technological devices.</p> <p>Elaborate The practical exercise is about the evaluation of information and data on a certain given topic. The learner is given 2 website URLs, and he/she should analyse the content in it, and assess which information is reliable and which one is not.</p> <p>Evaluate The educator, once completed the practical task, proposes a set of matching definitions that the learner should be able to complete due to the newly acquired concepts. The evaluation will be based on the definition of information and data literacy, accuracy and reliability of the information, the definition of fact, and collaborative and sharing tools.</p>

Methods	Group discussion Final Debriefing
Evaluation	In a range from 1 to 5, where 1 is not sufficient and 5 excellent, how much would you rate the: <ul style="list-style-type: none"> - Theoretical content on Information and Data Literacy (1-2-3-4-5); - The group dynamics (1-2-3-4-5); - The educator's overall facilitation (1-2-3-4-5); - The practical exercise proposed (1-2-3-4-5); - The evaluation questions (1-2-3-4-5).
References	PPT presentation

2.2. Communication and collaboration

2.2.1. Scope

The Communication and Collaboration module aims to empower older adults with limited digital literacy to enhance their communication and collaboration skills in the digital age. In today's rapidly advancing technological landscape, the ability to effectively use digital tools for communication and collaboration is vital for staying connected with loved ones, engaging with the community, and accessing valuable resources. This module will introduce learners to fundamental concepts and practical applications to enhance skill development.

In the course module, learners will gain confidence in using various communication tools such as email, instant messaging, and video calls, enabling them to connect with friends and family, share experiences, and participate in online discussions. Additionally, the module will explore collaborative platforms, like virtual meeting spaces and document-sharing tools, encouraging learners to engage in group projects. By the end of this module, participants will have acquired the essential digital competencies required for effective communication and collaboration, empowering them to stay socially connected, actively participate in the digital world, and overcome potential barriers presented by their limited digital experience.

2.2.2. Learning Outcomes

By the end of this module, learners will be able to:

- Develop proficiency in using collaborative tools and platforms to create, edit, and share documents.
- Enhance their critical thinking skills through brainstorming on a specific topic, taking notes, and searching for resources.
- Practice effective communication and discussion skills.

2.2.3. Course content

The competences in communication and collaboration of digital literacy refer to the essential skills and abilities required to effectively use digital tools and platforms for communication, teamwork, and social interaction in the digital age. These competences enable individuals to stay connected with others, share information, and collaborate on projects, both locally and globally.

Dimensions of Communication and Collaboration competence include:

1. Interacting Through Digital Technologies
2. Sharing Through Digital Technologies
3. Engaging in Citizenship Through Digital Technologies
4. Collaborating Through Digital Technologies
5. Netiquette
6. Managing Digital Identity

1. Interacting Through Digital Technologies

Interacting through digital technologies involves using various communication tools, such as emails, instant messaging, and video calls, to engage with others in the digital realm. For older adults, learning these competences enables them to stay connected with family and friends, fostering meaningful relationships regardless of physical distance. It also opens doors to new social opportunities and online communities, where they can share experiences, interests, and knowledge with like-minded individuals worldwide. Mastering digital interactions empowers older adults to feel more included and engaged in the modern world, reducing feelings of isolation and enhancing their overall well-being.

- **Email Communication.** Email communication refers to being able to create, send, receive, and manage emails. This includes understanding email etiquette, organizing emails with folders and labels, and using attachments to share files. Email communication is an essential aspect of digital literacy, particularly for adults aged 55 and older, as it facilitates staying connected with others, accessing valuable information, and engaging in various online activities. In this module, we will explore the fundamentals of email communication, enabling you to confidently navigate this widely used digital tool.
- **Setting Up Your Email Account.** Setting up your own email account is easier than you might think! You'll choose a unique username, create a strong password, and provide essential details to get your account up and running. Creating your own email account is simpler than you think. Choose a service provider like Gmail, Outlook, or Yahoo Mail. Then, follow these steps:
 1. Create your Username: Pick a unique username. Choose one more professional that will show in your email address when you send and receive messages.
 2. Create a Password: Craft a strong password with a mix of characters for security.
 3. Personal Details: Provide your name, birthdate, and phone number.
 4. Verification: Verify your account through a code sent via email or SMS.

Once set up and verified, you'll gain access to your inbox.

Composing, Sending, and Replying to Emails: Once your account is set up, you'll learn how to compose and send emails. You should learn the basics of writing clear and concise messages, including adding recipients, a subject line, and the main content. In a short time, you'll also become proficient in replying to emails, ensuring seamless communication with family, friends, and other contacts.

Attaching Files and Managing Attachments: Sending files and photos through email is a wonderful way to share memories and important information. Additionally, you'll learn how to manage attachments, making it easier to find and access them in your inbox.

Organizing Emails with Folders and Labels: As your inbox grows, organization becomes crucial. You'll discover how to create folders and labels to categorize and store your emails efficiently. Organizing your inbox will help you find important messages quickly and keep everything neat and tidy.

Instant Messaging and Online Chat: Involve real-time communication using platforms like instant messaging apps. These tools enable dynamic conversations with multimedia elements such as emojis and images. These platforms revolutionize communication, providing quick, text-based interactions for personal and professional use. Stay connected, share multimedia, and collaborate seamlessly with the power of instant messaging.

- **Video Conferencing.** Video conferencing refers to having the ability to initiate and participate in video calls and virtual meetings. This competence includes understanding video conferencing features such as muting, screen sharing, and video effects. Video conferencing has become an indispensable tool for connecting people in the digital age, allowing individuals and groups to communicate face-to-face regardless of their physical location. Through video conferencing applications, participants can see and hear each other in real time, creating a sense of presence and enhancing the quality of communication. Video conferencing offers a range of features, such as screen sharing, virtual backgrounds, and interactive chat, enabling seamless collaboration and engagement during online meetings. It has proven especially valuable for remote work, virtual social gatherings, and educational purposes. By eliminating geographical barriers, video conferencing fosters global connections and enables individuals to participate in meetings, events, and discussions from the comfort of their own spaces. The ability to see facial expressions and body language enhances the effectiveness of communication, making video conferencing a powerful and versatile tool in today's interconnected world.
- **Collaboration Tools.** Collaboration Tools indicate being familiar with collaborative platforms that facilitate teamwork and group projects. This includes co-editing documents in real time, managing shared files, and participating in virtual team meetings. Collaboration tools are digital catalysts for remote teamwork. They offer a virtual haven where minds converge, ideas flow, and projects evolve in real-time. A standout feature is the simultaneous co-editing of documents, presentations, and spreadsheets. Seamlessly integrated communication tools, from instant messaging to video conferencing, ensure uninterrupted dialogue. Version control and activity tracking maintain cohesion. These tools have revolutionized remote collaboration, boosting productivity across domains. Embrace them to excel in virtual teamwork, meetings, and projects—embracing the digital era's teamwork prowess!
- **Online Community Engagement.** Competence in finding, joining, and actively participating in online communities, forums, and social media groups related to one's interests or professional goals. Online Community Engagement involves actively participating in virtual communities, forums, and social media groups based on shared interests, hobbies, or professional pursuits. It provides a platform for individuals to connect, collaborate, and exchange information with like-minded people from diverse backgrounds and locations. Engaging in online communities allows you to share your knowledge, experiences, and insights, while also learning from others who share similar passions. By contributing to discussions, asking questions, and offering support, you become an integral part of these communities, building valuable connections and expanding your network. Understanding online etiquette and safety is vital in this context, as it ensures respectful and meaningful interactions. By respecting community guidelines, maintaining digital decorum, and protecting your privacy, you can foster a positive and inclusive online environment. Online community engagement opens up endless possibilities for learning, collaboration, and personal growth. Embrace the opportunity to be part of vibrant online communities that align with your interests and passions!
- **Cross-Cultural Communication:** Cross-Cultural Communication refers to developing the ability to communicate and collaborate with individuals from diverse cultural backgrounds, understanding and respecting different communication norms and customs. Cross-cultural communication refers to the process of exchanging information, ideas, and messages between individuals or groups from different cultural backgrounds. In today's interconnected world, people often interact with others from diverse cultures, making effective cross-cultural communication a crucial skill. Understanding and appreciating cultural differences is essential in cross-cultural communication. Different cultures have distinct communication styles,

norms, values, and non-verbal cues, which can influence how messages are perceived and interpreted. By being aware of these variations, individuals can avoid misunderstandings and navigate intercultural interactions with sensitivity and respect. Developing cross-cultural communication skills involves active listening, empathy, and adaptability. It requires an open mindset to appreciate and learn from diverse perspectives. By embracing diversity and seeking to bridge cultural gaps, individuals can foster meaningful connections and promote mutual understanding, enhancing communication and collaboration across cultural boundaries.

- **Adaptability to Various Platforms:** It refers to being flexible and adaptable to different digital communication and collaboration platforms, learning new tools as technology evolves. Adaptability to Various Platforms is a crucial aspect of digital literacy that empowers individuals to navigate and use different digital tools, applications, and platforms with ease. As technology constantly evolves, new platforms emerge, and existing ones undergo updates, adaptability becomes essential for staying proficient in the digital realm. By being adaptable, individuals can quickly learn and familiarize themselves with various platforms, regardless of their complexity or purpose. This competence enables seamless transitions between different digital environments, such as social media platforms, productivity tools, collaboration software, and video conferencing applications. Adaptability involves a willingness to explore, experiment, and embrace change in the digital landscape. It also includes being receptive to learning new features, interfaces, and functionalities as technology progresses. Embracing adaptability empowers individuals to remain relevant and engaged in an ever-evolving digital world, ensuring that they can effectively communicate, collaborate, and participate in the digital age's vast opportunities and experiences.
- **Effective Online Presentation:** Effective Online Presentation refers to the ability to present ideas, information, and projects effectively in online environments, using multimedia tools and visual aids to enhance communication. As digital communication becomes increasingly prevalent, mastering online presentation skills is essential for various contexts, including webinars, virtual meetings, online classes, and professional presentations. Creating a compelling online presentation involves careful planning, clear organization, and engaging visuals. Presenters must adapt their communication style to suit the virtual environment, utilizing multimedia tools, such as slides, videos, and graphics, to enhance their message. They should also consider using interactive elements to encourage audience participation and maintain interest. Moreover, effective online presenters pay attention to their tone, pace, and body language, even in a virtual setting, to establish a connection with their audience. They should be mindful of potential technical issues and have contingency plans in place to ensure a seamless presentation experience. By mastering effective online presentation skills, individuals can confidently deliver impactful messages, inspire engagement, and leave a lasting impression on their virtual audience, regardless of the platform or topic.

These competences empower individuals to actively participate in the digital world, connect with others, and collaborate on various tasks and projects. By developing these skills, individuals can overcome digital barriers, enhance their social and professional interactions, and fully engage in the opportunities offered by the digital age.

2. Sharing Through Digital Technologies

The ability to share through digital technologies allows older adults to exchange information, memories, and content with others easily. By learning to share photos, documents, and stories via email, social media, or cloud storage, they can preserve and cherish memories with loved ones and

even participate in virtual events or family gatherings. This competence also facilitates collaborating on projects and contributing to online discussions, empowering older adults to actively engage in community initiatives or volunteer opportunities from the comfort of their homes.

Sharing through digital technologies is a valuable skill that empowers older adults to connect with their loved ones, engage in collaborative efforts, and actively participate in various online activities. In today's digital age, being able to share information, memories, and content easily is essential for staying connected and involved in both personal and community matters. Explore how you can learn and master sharing through digital platforms.

- **Familiarize Yourself with Digital Tools:** Start by getting acquainted with the digital tools that facilitate sharing. These may include email platforms, social media networks, cloud storage services, and online file-sharing platforms. Take the time to explore their features and functionalities, as each tool may offer different ways to share content.
- **Preserve and Cherish Memories:** Digital technologies allow you to capture and share precious memories easily. Learn how to take photos and record videos using your smartphone or camera. Practice sending these photos and videos to your loved ones through email or social media. By doing so, you can create digital albums and share them with family and friends, bridging the distance and cherishing moments together.
- **Engage in Virtual Events and Gatherings:** Many communities and organizations now organize virtual events and gatherings. These could be family reunions, social meetups, or even educational webinars. Learn how to join virtual meetings through video conferencing platforms like Zoom or Microsoft Teams. Participating in such events allows you to be a part of various activities and discussions, no matter where you are physically located.
- **Collaborate on Projects:** Digital sharing enables you to collaborate with others on projects and initiatives. Whether it's working on a community-driven project or contributing to a shared document with friends, understanding collaboration tools like Google Drive or Microsoft Office 365 can enhance your participation. Embrace the opportunity to bring your ideas to the table and engage in teamwork within a digital environment.
- **Safeguard Your Privacy:** As you explore sharing through digital technologies, it's crucial to be mindful of your privacy and security. Always use strong and unique passwords for your accounts, and be cautious about sharing personal information online. Familiarize yourself with privacy settings on social media platforms to control who can see your posts and content.
- **Stay Curious and Learn Continuously:** Digital technologies are continually evolving, and there's always something new to learn. Stay curious and open to exploring new digital tools and trends. Be willing to ask questions and seek guidance when needed. Enroll in workshops or classes designed for older adults to build your confidence in using digital technologies for sharing and communication.

Remember, sharing through digital technologies offers endless possibilities to stay connected, engaged, and actively involved in various aspects of your life. Embrace the learning journey, and with practice, you'll discover the joy of sharing memories, experiences, and ideas with others, making meaningful contributions to your digital community.

3. Engaging in Citizenship Through Digital Technologies

Engaging in citizenship through digital technologies empowers older adults to be active participants in societal matters and civic responsibilities. By accessing news, governmental websites, and online forums, they can stay informed about current events, policies, and community initiatives. This

knowledge allows them to voice their opinions, participate in online petitions, or communicate with elected representatives, advocating for causes they care about. Digital citizenship fosters a sense of social responsibility, enabling them to make positive contributions to society and stay informed and involved in civic matters.

- **Start with the Basics:** If you're new to digital technologies, don't worry! Begin by getting familiar with devices like computers, tablets, or smartphones. Learn how to turn them on/off and navigate the user interface. Try to learn how you can utilise them to make your life as a citizen easier. For instance, paying bills, getting appointments, paying taxes, etc.
- **Explore the Internet:** The Internet is a vast resource for staying informed about current events and policies. Try using search engines to find reliable news sources that interest you. For instance, to learn about your taxes, use the search engine and find out how to pay them online.
- *e.g.: Go to the search engine and write: how to get a vaccine appointment and check the answers available.*
- **Discover Government Websites:** Access official governmental websites to learn about community initiatives, policies, and how to contact your representatives. You can even access government services online. For example, what is the most common government institution you use? A bank let's say.

Go to that bank's website and explore what it offers for the citizens. Find out what Dos and Don'ts they write on the website.

- **Stay Informed:** Learn how to critically evaluate news articles and verify information before sharing it. Being well-informed is essential for active citizenship. Various websites tend to post false information and encourage people to share it immediately.
- **Before** sharing anything:
 - o Check the source
 - o Read the whole article
 - o Look for references
 - o Cross-check with other sources
 - o Beware of bias
 - o Consider the tone
- **Engage in Online Discussions:** Join online forums or social media groups where people discuss societal matters and community initiatives. Remember to keep interactions respectful and constructive.
- **Explore Civic Resources:** There are websites and platforms focused on civic engagement and volunteering opportunities. Discover how you can participate in online petitions or community-driven projects. For instance, search for some environmental problems in your environment and try to learn what locals can do.
- **Prioritize Safety:** Be cautious online. Learn about online safety, such as creating strong passwords and recognizing phishing attempts. Understand privacy settings on social media platforms.
- **Believe in Yourself:** Learning new things can be challenging, but don't give up. Celebrate your achievements, no matter how small, and stay positive throughout the learning process.

Remember, you have the power to be an active participant in societal matters and civic responsibilities through digital technologies. Take it one step at a time, and you'll discover the enriching experience of engaging with the world in new and exciting ways.

4. Collaborating Through Digital Technologies

Collaboration through digital technologies allows older adults to work together on projects, share ideas, and contribute to group efforts. Learning to use collaborative tools, such as shared documents or virtual meeting spaces, empowers them to participate in remote teams, volunteer organizations, or learning communities. This competence fosters a sense of teamwork and inclusivity, enabling older adults to share their knowledge and experiences while learning from others in a collaborative and supportive digital environment.

- **Explore Collaborative Tools:** Take the time to learn about various collaborative tools, such as shared documents, virtual meeting platforms (e.g., Zoom or Microsoft Teams), and project management tools. Familiarize yourself with their features and functionalities.
- **Join Online Communities:** Seek out online communities or groups that align with your interests or goals. Participate in discussions, share your insights, and learn from others' experiences.
- **Contribute Positively:** Be an active and constructive participant in collaborative projects or discussions. Share your knowledge and experiences while being open to new ideas and perspectives.
- **Communicate Clearly:** In virtual collaborations, clear communication is crucial. Express your thoughts concisely, ask questions, and seek clarification when needed.
- **Respect Others' Time:** Be mindful of others' schedules and time zones when scheduling virtual meetings or setting deadlines for collaborative projects.
- **Practice Digital Etiquette:** Be polite and respectful in all online interactions. Avoid using all caps (considered shouting) and be cautious with humour, as it may not always translate well in written form.
- **Protect Your Privacy:** Be cautious about sharing personal information online. Use secure passwords and be aware of privacy settings on collaborative platforms.
- **Embrace Flexibility:** In virtual collaborations, technical issues or scheduling conflicts may arise. Stay flexible and adapt to changes as needed.
- **Seek Help When Needed:** Don't hesitate to ask for help or guidance if you encounter challenges with using collaborative tools or platforms. There are often tutorials or support resources available.

5. Netiquette

Netiquette refers to the proper online behaviour and etiquette when communicating and collaborating on digital platforms. For older adults, understanding netiquette is crucial in building positive online relationships and avoiding misunderstandings or conflicts. Learning to express oneself respectfully, avoiding offensive language, and considering others' feelings and perspectives fosters a harmonious online community. Netiquette also involves being cautious about sharing personal information and being vigilant against online scams or phishing attempts. By embracing netiquette, older adults can confidently navigate digital interactions, create a positive digital identity, and maintain healthy online relationships.

Practice netiquette when collaborating through digital technologies

- **Be Respectful:** Always treat others with respect and courtesy in online interactions. Use polite language and avoid offensive or provocative comments.

- **Think Before Responding:** Take a moment to think before responding to a message or comment. Avoid reacting impulsively, especially in emotionally charged discussions.
- **Consider Others' Perspectives:** Acknowledge that different people may have diverse viewpoints and experiences. Be open to understanding and learning from others' perspectives.
- **Use Clear and Concise Language:** Communicate your thoughts clearly and concisely. Avoid using excessive jargon or complex language that may be difficult for others to understand.
- **Be Mindful of Tone:** In written communication, tone can be easily misunderstood. Use emoticons or emojis when appropriate to convey emotions or humour.
- **Protect Your Privacy:** Be cautious about sharing personal information online. Avoid posting sensitive details such as addresses, phone numbers, or financial information.
- **Report Inappropriate Behavior:** If you encounter offensive or abusive behaviour, report it to the platform administrators or moderators.
- **Seek Consent for Sharing Content:** If you want to share someone else's content or ideas, seek their permission first and provide proper attribution.
- **Don't Engage in Cyberbullying:** Avoid engaging in cyberbullying or any form of harassment. Treat others online as you would in face-to-face interactions.
- **Avoid Spamming or Overposting:** Refrain from excessive posting or sending unsolicited messages to others. Respect their online space and time.
- **Don't Share Misleading Information:** Verify information before sharing it to avoid spreading false or misleading content.
- **Avoid ALL CAPS:** Writing in all capital letters is considered shouting and may be perceived as aggressive. Use appropriate capitalization in your messages.
- **Don't Feed Trolls:** If you encounter provocative or disruptive individuals online, it's best not to engage with them. Instead, report their behaviour if necessary.
- **Avoid Arguments:** Online discussions can get heated, but avoid engaging in arguments or personal attacks. Focus on the issue at hand and maintain a respectful tone.
- **Don't Trust Unknown Links:** Be cautious about clicking on links from unknown sources, as they may lead to phishing websites or malware.

By following these, you can create a positive and respectful online environment, build meaningful connections, and enhance your collaborative experiences through digital technologies. Practising netiquette contributes to a more harmonious and inclusive digital community.

6. Managing Digital Identity

Managing digital identity involves being conscious of the information shared online and how one presents themselves in the digital space. For older adults, this competence is essential in safeguarding their online reputation and privacy. By understanding the importance of strong passwords, limiting public sharing of personal information, and adjusting privacy settings on social media, they can protect themselves from potential cyber threats. Additionally, managing digital identity empowers older adults to present themselves positively in professional settings, such as job applications or networking platforms, enhancing their digital presence and opportunities in the digital world.

- **Use Strong Passwords:** Use strong and unique passwords for all online accounts. Avoid using easily guessable information like birthdays or common words. Consider using a mix of letters (both uppercase and lowercase), numbers, and special characters in your passwords.
- **Limit Public Sharing:** Be cautious about what you share publicly on social media and other online platforms. Avoid sharing sensitive personal information such as your address, phone number, or financial details. Limit your posts to trusted friends and connections.

- **Adjust Privacy Settings:** Review and adjust the privacy settings on your social media accounts and other online profiles. Ensure that only people you trust can view your personal information and posts.
- **Think Before Posting:** Before posting anything online, consider whether it aligns with your desired digital identity and how it may be perceived by others. Be mindful of the potential long-term impact of your posts.
- **Regularly Monitor Accounts:** Regularly review your online accounts and profiles to ensure that there are no unauthorized posts or activities. If you notice anything suspicious, take immediate action to secure your account.
- **Be Cautious with Links:** Avoid clicking on suspicious links sent via email or messages. They may lead to phishing websites that aim to steal your personal information.
- **Enable Two-Factor Authentication:** Enable two-factor authentication (2FA) whenever possible. This adds an extra layer of security by requiring a second form of verification to access your accounts.
- **Use Private Browsing:** When using public computers or devices, utilize private browsing or incognito mode. This prevents the browser from saving your browsing history, cookies, and other data.
- **Regularly Update Software:** Keep your devices and software up to date with the latest security patches and updates. This helps protect against known vulnerabilities.

By following these tips, you can effectively manage your digital identity, safeguard your online reputation and privacy, and present yourself positively in the digital world. Managing digital identity is essential for maintaining a safe and respectable online presence, both in personal and professional settings.

Overall, older adults' learning of digital competences in communication and collaboration enables them to stay connected, engaged, and informed in the digital age. These skills not only enhance their social interactions but also provide avenues for personal growth, civic engagement, and active participation in the modern digital society.

2.2.4. Practical exercise

Title: Exploring Collaborative Tools

Let's create a specific collaborative task using the collaborative tools we discussed earlier. For example, we have the task to create a "Virtual Book Club". How are we going to do that?

Step 1: Familiarize Yourself with Collaborative Tools. Explore the shared document platform and familiarize yourself with how to create, edit, and share documents collaboratively. Additionally, learn how to schedule and conduct virtual meetings using a virtual meeting platform like Zoom or Microsoft Teams.

Step 2: Form a Book Club Group. On the online learning platform, find other learners who are interested in reading and discussing books. Form a book club group with them, and decide on a book to read together.

Step 3: Read the Book Individually. Each member reads the chosen book individually, taking notes and highlighting interesting passages as they go.

Step 4: **Collaborate on a Shared Document.** Create a shared document where each member can contribute their thoughts, reflections, and discussion points about the book. Use this document to collectively summarize the key themes, characters, and plot points.

Step 5: **Schedule and Conduct Virtual Meetings.** Utilize the virtual meeting platform to schedule regular book club meetings. During these meetings, discuss the book, share your thoughts, and engage in lively discussions. Use the shared document as a reference during the meetings.

Step 6: **Reflect and Share.** After each virtual book club meeting, take some time to reflect on the discussions and insights gained. Share your reflections and takeaways on the online learning platform, and encourage others to do the same.

Step 7: **Engage with Peers.** Interact with other book club groups on the platform. Attend their virtual meetings as a guest or invite them to your book club meetings for cross-discussions and diverse perspectives.

Step 8: **Ask Questions and Seek Assistance.** Throughout the process, don't hesitate to ask questions, seek assistance, and share your progress with your online teacher.

Step 9: **Evaluation.** Ask participants to answer the following questions:

- How have digital collaborative tools helped you to communicate with peers?
- How would you use collaborative digital tools in your everyday life?

2.2.5. Key takeaway

The Communication and Collaboration module equips older adults with vital digital literacy skills, enabling effective communication and confident collaboration in the digital realm. Mastering email, instant messaging, and video calls bridges generation gaps and fosters connections with family and friends. Introduction to collaborative platforms facilitates teamwork and participation in group projects. Understanding netiquette and managing digital identity promote positive online relationships and safeguard privacy. Embracing these competences enhances social interactions, personal growth, and civic engagement, empowering older adults in the modern digital society. Online communities provide support and valuable information for well-being and a sense of belonging.

2.2.6. Advice

Some advice for educators to effectively teach these skills is to create a positive and inclusive digital environment in the classroom. Teach learners about netiquette, which includes guidelines for polite online behaviour, to ensure that students maintain a positive and respectful tone in their online communications. Integrate group projects and activities that require learners to work together online, fostering teamwork and communication skills.

Teachers can serve as role models for effective digital communication. Demonstrate how to communicate clearly, concisely, and professionally through various digital channels, such as emails, discussion forums, and instant messaging. Encourage learners to ask questions, seek clarification, and actively participate in online discussions, thereby improving their communication skills in the digital realm.

2.2.7. References

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2.2.8. Evaluation questions

1. Why do we critically evaluate news articles before sharing them?
 - A. To increase website traffic.
 - B. To stay informed about current events.
 - C. To verify the information for active citizenship.

2. What is a crucial step in accessing reliable information on the internet?
 - A. Checking the source.
 - B. Sharing immediately.
 - C. Using any search engine available.

3. Netiquette is essential for older adults to practice proper online behaviour and etiquette when collaborating through digital technologies. Which of the following is NOT a part of netiquette?
 - A. Being respectful and considerate in online interactions.
 - B. Protecting personal information and privacy online.
 - C. Engaging in cyberbullying and offensive language.

4. What is one of the recommended ways for older adults to safeguard their online privacy and reputation while managing their digital identity?
 - A. Sharing personal information openly on social media.

- B. Using weak and easily guessable passwords for online accounts.
- C. Adjusting privacy settings on social media and online profiles.

5. Match the following digital communication features with their descriptions.

Digital communication features:	Descriptions:
A. Video Calls	i. Connecting with family through virtual meetings.
B. Instant Messaging	ii. Sending messages in real-time.
C. Collaborative Platforms	iii. Participating in group projects.
D. Email	iv. Organizing inboxes and managing attachments.

2.2.9. Facilitation sheet

Title	Using Digital Collaboration Tools with Seniors
Time	2 h
Target group	Seniors Adults 55+
Learning outcomes	<ul style="list-style-type: none"> - Develop proficiency in using collaborative tools and platforms to create, edit, and share documents. - Enhance critical thinking skills through brainstorming on a specific topic, taking notes, and searching for resources. - Practice effective communication and discussion skills.
Materials	<ul style="list-style-type: none"> - Presentation - Computers/laptops/tablets/mobile phones - Projector - Wi-fi
Facilitation steps	<p>Engage Tell participants the following scenario: <i>In a quiet corner of the neighbourhood, Sarah, a spirited senior, stumbled upon a collaborative app. With a smartphone in hand and a desire to bridge the distance, she met up again with someone she hadn't seen in a long time. Which applications do you think it refers to?</i></p> <p>Explore Brainstorm with participants about collaborative apps. Give learners an orientation to the collaboration tools and virtual meeting platforms that exist and tell them they will use them in the workshop. Present the benefits of collaboration. Offer tutorials to ensure they are comfortable with the digital tools selected: Gmail, Padlet and Google Meet. Address any questions and encourage practice before starting the activity.</p> <p>Elaborate Divide the participants into pairs or groups of 3. Each group will be given a topic to work on:</p> <ol style="list-style-type: none"> 1. Ways to increase creativity online and offline 2. Promoting (your country) through digital technology 3. Benefits of continuing education 4. Old Media vs. New Media 5. Ways to improve online well-being <p>(The facilitator can create more themes depending on the number of participants) Give more hints on each topic if a deeper understanding is needed. These themes should be addressed through brainstorming among the group participants. They will receive by email a request for collaboration with a link in the Padlet app, where all the ideas about the themes will be centralized. There will be one Padlet per theme where participants can add resources, personal experiences, ideas, tools, pictures, and texts to present at the end in front of everyone. Padlet links must be made in advance by the facilitator.</p>

	<p>Explain Emphasize the value of active listening and diverse perspectives during discussions. After the 40 minutes of gathering resources and uploading to the Padlet, groups will be emailed a link to a Google Meet video conference. Participants will learn how to use the application and share the Google Meet screen on the Padlet created in the group work.</p> <p>Evaluate Evaluate and Encourage Reflection: Prompt learners to reflect on discussions and share insights with the group. Provide feedback on their contributions and encourage constructive feedback among peers to foster continuous improvement. Ask them:</p> <ul style="list-style-type: none"> - <i>What challenges have you faced during your work?</i> - <i>What communication methods did you use in this activity?</i> - <i>What did you learn from others' presentations?</i>
Methods	<ul style="list-style-type: none"> - Discussion - Question and answer - Reflection - Tutorial - Group work - Brainstorming
Evaluation	<p>From 1 (lowest) to 5 (highest), evaluate the activity in terms of the following items: Instructional content Benefit Peer feedback</p>
References	<p>https://padlet.com/ https://meet.google.com/</p>

2.3. Digital content creation

2.3.1. Scope

The scope of this module is to introduce and illustrate the Digital Content Creation area of competence of the DigComp European framework. It also entails the second dimension of competences in the format of steps to be followed to go from a foundation level of expertise to an intermediate/advanced one.

Development of digital content, together with integration and re-elaboration of the same, the copyright and the programming-related skills, attitudes and knowledge are presented in a way that the 55+ adult educator can easily draw a learning path for his/her adepts and stress on competence or an another at different times.

The module closes with a practical exercise on multimedia digital content, aimed at verifying the level of understanding of the overall theoretical content, including using the right register and format to vehicle the message towards a specific target public.

2.3.2. Learning Outcomes

By the end of this module, learners will be able to:

- Illustrate the needed steps from the planning of the digital content to the creation of it;
- Identify the basic copyright and licence rules of content creation;
- Create actual digital content at a foundation/intermediate level.

2.3.3. Course content

The Digital Content Creation area of competence is a vital component of the DigComp framework. In today's digital age, where communication and expression take place through various digital platforms, the ability to create engaging, informative, and visually appealing content is crucial. Digital content creation empowers individuals to effectively communicate their ideas, knowledge, and messages using digital tools and media.

This competence area encompasses the skills and knowledge required to plan, design, develop, and distribute digital content across different formats and channels. It involves understanding the principles of effective storytelling, visual design, multimedia integration, and user engagement. By developing Digital Content Creation competences, individuals can create content that captivates the targeted audiences, conveys information effectively, and drives meaningful interactions.

To explain the Digital Content Creation competence further, we can break it down into key components:

1. **Development of digital content**, which includes the acknowledgement and usage of different formats and media, and the ability to rightfully address the message to its final target;
2. **Integration and Re-Elaboration of digital content**, which entails the ability to select and assess how to edit and modify the information created in an original way;
3. **Copyright and Licenses**, or in other words, rules and warrants that protect the originality of the content created or to re-elaborate;

4. **Programming**, or developing a certain sequence of instructions to solve a problem or do a task.

Overall, in the frame of content development and creation, it is relevant to follow a set of steps that can ensure effective communication and transmission of digital content.

Content Planning and Strategy: Conducting audience analysis, identifying objectives, and creating content strategies that align with organizational or personal goals.

Storytelling and Narrative Development: Creating engaging content to emphasize the structure of the narratives, developing compelling storylines, and delivering content in a coherent and captivating manner.

Visual Design and Multimedia Integration: Understanding the principles of graphic design to appeal visually to the targeted audience, applying colour theory, and multimedia integration for more impactful content.

Content Creation Tools and Technologies: Using software applications, content management systems, multimedia editing tools, and other digital platforms to develop and enhance digital content.

User Engagement and Interactivity: Incorporating interactive elements, designing for user experience, and optimizing content for different devices and platforms.

Content Distribution and Promotion: Effectively distributing and promoting it to reach the intended audience is essential. Promotion strategies have to cover content distribution, search engine optimization (SEO), social media promotion, and understanding analytics to measure content performance.

By developing competences in Digital Content Creation, individuals can effectively communicate their ideas, information, and messages in the digital realm. They can leverage various tools, technologies, and storytelling techniques to create content that resonates with audiences, conveys information effectively, and fosters meaningful connections, which is vital for 55+ adults who first approach social networks, for example.

Creating and editing digital content in different formats to express oneself through digital means can be simplified into the following 10 steps:

1. *Define your purpose:* Determine why you want to create digital content and what message or idea you want to convey. Clarify your goals and consider the target audience you want to reach;
2. *Choose the appropriate format:* Select the digital format that best suits your content and purpose. It could be text-based, such as blog posts or articles; visual, like images or infographics; audio, such as podcasts or music; or multimedia, combining various elements like text, images, audio, and video;
3. *Plan your content:* Outline and organize your ideas before diving into the creation process. Create a structure, storyboard, or script to guide your content creation and ensure coherence;
4. *Create and gather resources:* Start creating or collecting the necessary resources for your content. This may include writing original text, capturing photos or videos, recording audio, or collecting relevant data and information;
5. *Use digital tools and software:* Utilize digital tools and software to create and edit your content. Depending on the format, you may need word processing software, graphic design

tools, audio or video editing software, or content management systems. Explore user-friendly options that suit your level of expertise;

6. *Edit and refine:* Review and revise your content to ensure clarity, coherence, and quality. Edit text for grammar, spelling, and style. Enhance visuals by adjusting colours, adding effects, or cropping images. Fine-tune audio and video by trimming, enhancing sound quality, or adding transitions;
7. *Optimize for different platforms:* Consider adapting your content for various digital platforms and devices. Ensure compatibility, responsive design, and appropriate formatting to enhance the user experience across different screens and channels;
8. *Incorporate interactivity:* Engage your audience by incorporating interactive elements into your digital content. This could include hyperlinks, quizzes, polls, or interactive multimedia features that encourage user participation and feedback.
9. *Seek feedback and iterate:* Share your digital content with others and gather feedback. Be open to constructive criticism and use it to improve and refine your work. Iteration is key to enhancing the quality and impact of your digital content.
10. *Publish and promote:* Once your digital content is ready, publish it on the relevant platforms or channels. Promote it through social media, email newsletters, or collaborations with other content creators to increase visibility and reach your target audience.

Remember, creating and editing digital content is a continuous learning process. Experiment with different formats, explore new tools and adapt to emerging trends to enhance your digital expression and effectively communicate your ideas to the digital world.

As for **modifying, refining, improving, and integrating information and content** into an existing body of knowledge – for which it would be helpful to revise the course content about Information and Data Literacy - to create new, original, and relevant content and knowledge can be explained through these steps:

1. *Assess existing knowledge:* Begin by evaluating the existing body of knowledge related to your topic. Understand the current state of information, identify any gaps or limitations, and determine how your new content can contribute and add value;
2. *Identify areas for improvement:* Analyse the existing information and content to identify areas that can be modified, refined, or improved. Look for outdated or inaccurate data, inconsistencies, or gaps in understanding that can be addressed to enhance the overall quality and relevance of the content;
3. *Conduct research and gather additional information:* Research to gather new information, insights, and perspectives. Explore a variety of reputable sources, such as academic publications, industry reports, expert opinions, or relevant case studies, to enrich your understanding and expand your knowledge base;
4. *Synthesize and integrate new information:* Analyse the new information gathered and identify key findings, trends, or insights that can be integrated into the existing body of knowledge. Synthesize the information and identify connections or relationships that can contribute to a more comprehensive and nuanced understanding of the topic;
5. *Refine existing content:* Review the existing content and identify sections or elements that can be refined or improved. This may involve rewriting sections to enhance clarity, revising data or statistics to ensure accuracy, or reorganizing the content structure to improve logical flow;
6. *Generate new perspectives and ideas:* Utilize the new information and insights to generate new perspectives and ideas. Think critically and creatively about how the existing knowledge

can be expanded or reframed to create fresh, original content that brings unique value to the audience;

7. *Incorporate different formats or media:* Consider incorporating different formats or media into your content to enhance its effectiveness and engagement. This could include incorporating visuals, infographics, videos, interactive elements, or multimedia presentations that effectively communicate and illustrate new information and ideas;
8. *Attribute and cite sources:* Ensure that proper attribution is given to all the sources of information you have utilized. Cite your references and provide links or citations to support the validity and credibility of the new content you have created;
9. *Refine the new content:* Review the newly created content to ensure coherence, accuracy, and relevance. Seek feedback from peers, subject matter experts, or your target audience to gather insights and refine the content further;
10. *Publish and share the new content:* Once the new content has been thoroughly reviewed and refined, consider disseminating it through websites, blogs, social media, or professional networks to reach a wider audience and contribute to the existing body of knowledge;

When providing information on **copyright and licenses**, it has to be highlighted the importance of respecting intellectual property rights while promoting a clear understanding of permissible use. Here are some useful and easy-to-understand points to share:

Copyright Basics:

- Copyright protects original creative works, such as books, articles, music, images, videos, and software, giving creators exclusive rights over their work.
- Copyright is automatically granted upon creation, and it generally lasts for the creator's lifetime plus a specific number of years.
- Copyright grants the creator the right to reproduce, distribute, publicly display, and modify their work, unless they choose to share it under a specific license.

Fair Use and Educational Exceptions:

- Fair Use is a legal principle that allows for the limited use of copyrighted material without seeking permission from the copyright holder. It applies to certain educational purposes, criticism, commentary, news reporting, research, and other transformative uses.
- Fair Use factors include the purpose and character of the use, the nature of the copyrighted work, the amount and substantiality used, and the effect on the market for the original work.
- Educational exceptions may exist in some countries, permitting the use of copyrighted material within classrooms for teaching purposes. Educators should familiarize themselves with the specific provisions applicable to their jurisdiction.

Creative Commons Licenses:

- Creative Commons (CC) licenses are a set of standardized licenses that enable creators to grant permissions beyond traditional "all rights reserved" copyright.
- CC licenses provide a range of permissions that allow others to use, share, adapt, or build upon the creator's work while still respecting the creator's rights.
- CC licenses have different variations, such as Attribution (CC BY), Attribution-ShareAlike (CC BY-SA), NonCommercial (CC BY-NC), and No Derivatives (CC BY-ND).

On this matter, 55+ adult educators are suggested to follow some pieces of advice to contribute to the rightful exploitation of their and their learners' created digital content:

- Always assume that materials, including online content, are copyrighted unless stated otherwise;
- Seek permission when using copyrighted materials beyond what is permitted by fair use or educational exceptions;
- Encourage students to create original works or use materials with proper attribution and under suitable licenses;
- Familiarize yourself with open educational resources (OER) that are licensed for free use and modification, supporting open access to educational materials;

What is more, educators can easily approach a set of resources for further 55+ apprentices' learning:

- Point to reputable resources, such as the Creative Commons website, copyright offices, or educational institutions' copyright guidelines;
- Recommend online courses or tutorials that cover copyright and licensing topics for education;
- Encourage ongoing professional development to stay informed about copyright law updates and best practices.

Planning and developing a sequence of understandable instructions for a computing system to solve a given problem or perform a specific task involves breaking down the process into manageable steps. Here's a guide to help you create a sequence of instructions effectively:

Understand the Problem or Task:

- Clearly define the problem or task that needs to be solved or accomplished. Identify the specific objectives and desired outcomes.
- Analyse the requirements and constraints involved, such as input data, expected outputs, computational resources, or any limitations.

Determine the Approach:

- Devise a high-level strategy or approach to solve the problem or complete the task. Think about the logical sequence of steps needed to achieve the desired outcome.
- Consider any algorithms, techniques, or methods that can be employed to solve the problem efficiently.

Break Down the Problem into Steps:

- Decompose the problem or task into smaller, more manageable steps. Each step should be clear, concise, and achievable.
- Identify the sequence and dependencies among the steps, ensuring they flow logically from one to another.

Use a Structured Format:

- Write each step in a structured format using a consistent style or language. Consider using a combination of plain language, or a programming language, depending on the intended audience and purpose.

- Make sure the instructions are clear, unambiguous, and easy to understand. Avoid jargon or technical terms that may confuse the reader.

Provide Input and Output Specifications:

- Specify the required input data or parameters for each step. Clearly define the format, type, and range of acceptable values.
- Describe the expected output or result for each step. Specify the format, type, and any specific requirements or constraints on the output.

Include Error Handling and Validation:

- Anticipate potential errors, exceptions, or unexpected situations that may arise during the execution of the instructions.
- Include error-handling mechanisms, such as conditional statements or exception-handling routines, to address and handle such situations gracefully.

Test and Refine:

- Test the sequence of instructions with sample data or scenarios to ensure they produce the desired results. Debug any issues or errors encountered during testing.
- Refine the instructions as needed, making adjustments or clarifications to improve their effectiveness and reliability.

Document and Communicate:

- Document the sequence of instructions in a clear and well-organized manner. Include any relevant explanations, assumptions, or additional notes to aid understanding.
- Communicate the instructions effectively to the intended audience, whether it's end-users, developers, or stakeholders. Consider using visual aids, diagrams, or examples to enhance comprehension.

Review and Iterate:

- Seek feedback from others, such as colleagues or experts, to review and validate the sequence of instructions. Incorporate their suggestions and refine the instructions accordingly.
- Continuously iterate and improve the instructions based on user feedback, updates to the computing system, or changes in the problem requirements.

The area of digital content creation is the one that always more is developed by today's users due to the social networks' predominance among the promotional media and communication tools online. For a non-digital native, learning the combination of the above-mentioned competences is key, to be effective when addressing a message, despite the mean chosen or the integrated other media, to the targeted recipient.

2.3.4. Practical exercise

The following proposed exercise is about the **creation of a website** at a very basic level for other 55+ adults, so as to share interests and address similar needs. With this task, the adult learner can practice all the skills entailed by the module course and demonstrate a general understanding of the digital

content creation area of competences. The educator, once assigned the task, will have to provide the right timing for each above-listed step, including some homework time for the purpose to be fully encountered.

Step 1: Planning

- Start by determining the purpose and target audience of the website. Consider the interests and needs of adults aged 55 and above, such as retirement, silver tourism, hobbies, etc.
- Identify the key features and functionalities you want to include on the website, such as large text size, easy navigation, and clear content organization.
- Think about embedding videos or other media that can support the created original content.

Step 2: Choose a Website Builder

- Research different website builders that offer user-friendly interfaces and templates suitable for your target audience. Some popular options include:
 - Wix <https://www.wix.com/>
 - WordPress <https://wordpress.com/>
 - Squarespace <https://www.squarespace.com/>
- Select a website builder that aligns with your requirements and sign up for an account.

Step 3: Select a Template

- Browse through the template library provided by the chosen website builder.
- Look for templates that are visually appealing, easy to read, and have a layout suitable for older adults.
- Choose a template that you think would be a good starting point for your website.

Step 4: Customize the Template

- Start customizing the template by adding your own content, such as text, images, and videos.
- Modify the colour scheme, fonts, and other design elements to match the preferences and needs of your target audience.
- Ensure the text is large enough and easy to read for older adults.

Step 5: Create Navigation

- Pay attention to the website's navigation structure, making it simple and intuitive for older adults to find their way around.
- Create clear and descriptive menu items that lead to different sections of your website.
- Include a search bar if needed to allow users to find specific information quickly.

Step 6: Add Relevant Content

- Write informative and engaging content that is specifically tailored to your target audience.
- Break down the content into smaller sections or bullet points to enhance readability.
- Include information or resources that are relevant and useful to older adults, such as health tips, retirement planning, or hobbies.

Step 7: Optimize for Accessibility *(advanced level of expertise)

- Ensure your website is accessible to older adults with various needs and abilities.
- Make sure the website is responsive and works well on different devices, including smartphones and tablets.
- Consider incorporating features like adjustable text size, high contrast options, and audio playback for those with visual impairments.

Step 8: Test and Review

- Test the website's functionality and usability by navigating through its different sections.
- Share the website with a small group of adults aged 55 and above and gather feedback on their experience.
- Make any necessary adjustments based on the feedback received.

Step 9: Launch the Website

- Once you're satisfied with the website's design and functionality, it's time to launch it.
- Set up a hosting plan and purchase a domain name if you haven't done so already.
- Publish the website and make it live for the public to access.

Step 10: Maintain and Update *(intermediate level of expertise)

- Regularly update the website with fresh content to keep visitors engaged.
- Monitor the website's performance using analytics tools and make improvements based on the data.
- Stay responsive to user feedback and continue optimizing the website's usability and accessibility.

By following these steps, you'll be able to create a website that caters to the needs and preferences of adults aged 55 and above. Remember to consider their unique requirements throughout the process (accessibility).

2.3.5. Key takeaway

Digital Content Creation is one of the most important areas of competences that a citizen should master in today's world. Communication, in fact, is often offered by a set of media and formats online which embrace a different language, coding, and rules that all independent users should know. This course covers a step-by-step understanding of digital content development, from planning to doing, the integration and original elaboration of existing content, copyrighting rules, and programming insights.

2.3.6. Advice

Whenever this course is provided face-to-face, it is important for the educator to possess a visual support to show and explain the content of the training (ppt presentation, a hard copy of the theoretical part, enough pc for the users to do the exercises by themselves).

Moreover, a group dynamic is advisable, especially when performing the practical exercise, so as to gather opinion, knowledge and responses to the general input provided by the educator.

2.3.7. References

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DigComp. (n.d.). EU Science Hub. https://joint-research-centre.ec.europa.eu/digcomp_en

2.3.8. Evaluation questions

1. Choose the right definition from the below. Digital content creation competence area encompasses:

- A. The skills and knowledge required to plan, design, develop, and distribute digital content across different formats and channels.
- B. The ability to create digital messages for all kinds of audiences with the same content.
- C. The knowledge about digital tools which makes you create content of different types.

2. Choose the right statement from the below. Strategically planning digital content creation is particularly important for:

- A. The development of such digital content and integration with other media.
- B. Copying some other existing content without making the target group notice it.
- C. Testing and refining the content at a certain point.

3. Which of the below is a correct description of the copyright?

- A. Permission to copy every type of content with no restrictions.
- B. Protection for original creative works, such as books, articles, music, images, videos, and software, giving creators exclusive rights over their work.
- C. The right to make as many copies of the content in question as wanted.

4. Why is it important to obtain feedback about the digital content created?

- A. To assess the level of general understanding of the created content.
- B. To evaluate the acknowledgement of the content targeted public and make the due ameliorations.
- C. To have a second expert opinion even if the content is addressed to someone else.

2.3.9. Facilitation sheet

Title	Digital Content Creation
Time	3 h
Target group	Seniors Adults 55+
Learning outcomes	<ul style="list-style-type: none"> - Illustrate the needed steps from the planning of the digital content to the creation of it; - Identify the basic copyright and licence rules of content creation; - Create actual digital content at a foundation/intermediate level.
Materials	<ul style="list-style-type: none"> - Hard copies of the theoretical part of the course; - PPT of the course; - computer/s; - projector.
Facilitation steps	<p>Engage The course starts with a general poll on the overall level of expertise in digital content creation of the attending learners. That could be done through a Mentimeter, so as to visually understand the basis from where to start to explain and practice the step-by-step content planning, development, re-elaboration, and promotion. The poll could contain the following questions:</p> <ul style="list-style-type: none"> - How often do you create digital content (including social network posting)? - Do you usually plan what to communicate online? YES/NO. - Are you familiar with copyrighting? <p>Explore As follows, the educator proposes the learners shoot a short video presentation for the other classmates. This way, it will be possible to understand whether they know the format, they are able to integrate media and address the audience with the right register and set of information.</p> <p>Explain By using the PPT presentation, the educator introduces the area of competence and the 2nd dimension key competences so relevant for the learner to become an independent user of the digital environment and technological devices.</p> <p>Elaborate The practical exercise is about the creation of a website about adult 55+ interests and needs. The purpose is to strategically plan, develop, pilot and improve their created content, even if in a basic way. Possibly through a group effort, the learner directly familiarizes with several digital formats and media at the same time.</p> <p>Evaluate Once completed the exercise, the educator can propose a questionnaire about the content studied and practically exercised. For the face to face activity, the educators may wish to invite participants to present their work. In this case, the educator</p>

	would observe the competencies developed in the area of copyright, digital content planning and presentation skills.
Methods	Group Discussion Final Debriefing
Evaluation	In a range from 1 to 5, where 1 is not sufficient and 5 excellent, how much would you rate the: <ul style="list-style-type: none"> - Theoretical content on Digital Content Creation (1-2-3-4-5); - The group engagement (1-2-3-4-5); - Your interest in the topic (1-2-3-4-5); - The educator's overall facilitation (1-2-3-4-5); - The practical exercise proposed (1-2-3-4-5).
References	PPT presentation

2.4. Safety

2.4.1. Scope

Safety emphasizes the importance of protecting oneself and others in the digital world. It includes knowledge about online risks, privacy, cybersecurity, and responsible digital behaviour. The "Safety in the Digital Competence Framework" course is designed to help participants develop essential digital safety skills and knowledge within the context of the European Commission's Digital Competence Framework (DigComp). The course will cover various aspects of digital safety, including personal safety, online security, data protection, and responsible digital citizenship.

2.4.2. Learning Outcomes

By the end of this module, learners will be able to:

- Recognize potential risks and threats in the digital environment and demonstrate an understanding of proactive measures to mitigate them.
- Utilize best practices for creating and maintaining strong passwords, as well as implementing secure authentication methods.
- Evaluate and adjust privacy settings on Social Media platforms to ensure a safe and secure online presence.

2.4.3. Course content

In the digital world, safety is paramount. It's not just about knowing how to navigate online spaces, but also about ensuring your digital well-being and protecting your identity. The Safety component of the DigComp framework encompasses a range of skills and knowledge that are vital for a secure and responsible digital presence.

For digital facilitators working with low-skilled adults aged 55 and above, the focal point is guiding them through a safe digital journey. Understanding security practices is paramount, encompassing antivirus software and encryption insights to safeguard devices and accounts. Beyond the technicalities, emphasizing respectful online behaviour, avoiding cyberbullying, and grasping virtual world impact becomes pivotal.

Equipping learners to manage their digital identities is another critical facet. This involves imparting knowledge about safeguarding personal information, practising cautious data sharing, and recognizing the potential consequences of oversharing. The digital era poses unique well-being challenges, prompting the need to delve into strategies for maintaining a healthy online/offline balance.

Building cybersecurity awareness among this demographic holds immense value. Enabling them to recognize common cyber threats like phishing and malware fosters their online safety. Understanding the cues of suspicious emails and attachments empowers them to evade online scams. Additionally, providing an understanding of copyright and intellectual property principles ensures respectful use of and engagement with digital content.

The significance of data protection and privacy can't be overstated. Familiarizing learners with data protection laws, emphasizing individual rights concerning personal information, and imparting ethical online conduct underscore responsible digital citizenship.

Ultimately, as a digital facilitator, your role is to empower this group through the DigComp framework's Safety section. By equipping them with skills for secure and respectful digital engagement, you enable their journey to be not just about technology use, but about meaningful contribution and positive participation in the online realm.

1. Protecting devices. Protecting devices involves safeguarding digital content and comprehending risks in online environments. It's essential to grasp safety measures, prioritize security, and respect privacy. Being mindful of reliability is key, to ensuring a secure and trustworthy digital experience.

For adults aged 55 and above, awareness of phishing and malware is crucial. Recognizing these online threats empowers them to navigate the digital landscape safely. Phishing involves deceptive emails or messages designed to extract personal information or money, often mimicking legitimate sources. Malware, on the other hand, encompasses harmful software that can damage devices or steal sensitive data.

Understanding the red flags of phishing emails – such as unfamiliar senders, urgent requests, or suspicious links – is key. Equipping adults with the ability to differentiate between genuine and fraudulent messages reduces their vulnerability. Teaching them not to click on suspicious links and to verify the legitimacy of requests before acting is essential.

Regarding malware, helping them comprehend the risk of downloading files from untrusted sources is paramount. Educating them on the importance of reliable antivirus software and the significance of software updates is vital. By recognizing signs of malware infection – like sluggish performance or unexpected pop-ups – adults can take prompt action to mitigate potential damage.

In summary, empowering adults 55+ with knowledge about phishing and malware arms them with the tools to make informed decisions online, enhancing their digital safety and well-being.

Recognizing and defending against common online threats (e.g., phishing, malware)

Recognizing and defending against common online threats, such as phishing and malware, is essential to maintaining your online security. These threats can lead to identity theft, financial loss, and other serious consequences. Here's how to identify and protect yourself from these threats:

Phishing:

Phishing is a cybercrime in which attackers impersonate legitimate organizations to trick you into revealing sensitive information or performing actions that compromise your security. Here's how to recognize and defend against phishing:

- **Be Skeptical:** Be cautious of unsolicited emails, messages, or pop-ups asking for personal information, passwords, or payment details.
- **Check the Sender:** Verify the sender's email address. Be wary of misspellings or unusual domains.
- **Hover Over Links:** Before clicking on any links, hover your mouse cursor over them to preview the URL. Make sure it matches the official website.
- **Don't Share Personal Information:** Legitimate organizations rarely ask for sensitive information via email. Avoid sharing personal or financial details through email.
- **Look for Secure Websites:** Make sure the website you're visiting has "https://" in the address bar and a padlock icon. Avoid entering sensitive information on unsecured sites.

- Avoid Urgent Requests: Phishers often create a sense of urgency to pressure you into acting quickly. Take your time and verify requests.

Malware:

Malware (malicious software) refers to software designed to harm your computer, steal your information, or gain unauthorized access. Protecting yourself from malware involves both preventive measures and ongoing vigilance:

- Use Antivirus Software: Install reputable antivirus and anti-malware software and keep it updated regularly.
- Update Software: Regularly update your operating system, applications, and plugins to patch vulnerabilities that malware might exploit.
- Download from Trusted Sources: Only download software and apps from official and reputable sources. Be cautious of third-party websites.
- Email Attachments: Don't open email attachments from unknown or suspicious sources. Verify the sender's identity before opening attachments.
- Use a Firewall: Enable a firewall on your computer to block unauthorized access and data transfers.
- Scan External Devices: Scan USB drives and other external devices for malware before using them on your computer.
- Stay Informed: Educate yourself about different types of malware, such as viruses, ransomware, and spyware, to recognize warning signs.
- Regular Backups: Back up your important files regularly to an external drive or cloud storage. This ensures you can recover your data in case of a malware attack.
- Secure Wi-Fi: Use a strong password for your Wi-Fi network to prevent unauthorized access to your devices.
- Be Cautious Online: Be careful when clicking on ads, pop-ups, or downloading files from unknown sources. Avoid visiting suspicious or untrustworthy websites.

By staying vigilant and adopting these practices, you can significantly reduce your risk of falling victim to phishing attacks and malware infections. Remember that cyber threats evolve, so it's important to stay informed and keep your security measures up to date.

2. Protect personal data and privacy. Upholding the security of personal data and privacy in digital settings is of utmost importance. This encompasses understanding responsible practices for using and sharing personally identifiable information, safeguarding both oneself and others from potential risks. Recognizing the existence of a "Privacy policy" for digital services is key, as it outlines the procedures for managing and utilizing personal data.

Digital Footprint and Data Protection

Your digital footprint refers to the traces of information you leave behind when using digital technologies, such as the Internet, social media, and online services. It's a cumulative record of your online activities, interactions, and contributions.

Digital footprints carry significance for adults 55+. As they navigate online spaces, their actions leave traces that shape their virtual identity. With awareness, adults can craft a meaningful, respectful online footprint that mirrors their values and experiences. These traces can include:

- *Social Media Activity:* Posts, comments, likes, shares, and the profiles you create on social media platforms.
- *Online Searches:* Search queries made on search engines and the websites you visit.
- *Website Visits:* The websites you browse, the content you consume, and the links you click on.
- *Email Communication:* Emails sent and received, including attachments and metadata.
- *Online Purchases:* Information related to your online shopping, including products purchased and payment details.
- *Location Data:* Geolocation information from devices like smartphones.

Understanding digital footprints and their implications

Understanding digital footprints and their implications is essential for navigating the digital world safely and responsibly. These digital footprints can have a wide range of implications, both positive and negative, that can impact various aspects of your life. Here are some key points to consider:

Positive Implications:

- Online Identity and Branding
- Networking and Opportunities
- Educational and Professional Growth
- Showcasing Talents and Achievements
- Social Connections

Negative Implications:

- Privacy Concerns
- Reputation Damage
- Data Exploitation
- Cyberbullying and Harassment
- Employment Consequences
- Legal and Regulatory Issues

Best practices for protecting personal data online

Protecting your personal data online is crucial to ensure your privacy and security in the digital world. Follow these best practices to safeguard your sensitive information:

- **Use Strong and Unique Passwords:** Create complex passwords that include a mix of uppercase and lowercase letters, numbers, and special characters. Avoid using easily guessable information like birthdays or names. Use different passwords for each of your online accounts.
- **Enable Two-Factor Authentication (2FA):** Whenever possible, enable 2FA for your online accounts. This adds an extra layer of security by requiring a second form of verification in addition to your password.
- **Beware of Phishing:** Be cautious of unsolicited emails, messages, or links that ask you to provide personal information or login credentials. Verify the sender's identity and only click on links from trusted sources.
- **Secure Your Devices:** Use strong passcodes or biometric authentication (fingerprint or face recognition) to lock your devices. Install security updates regularly to protect against vulnerabilities.

- Use Secure Wi-Fi Connections: Avoid using public Wi-Fi networks for sensitive activities. When using public networks, consider using a virtual private network (VPN) to encrypt your internet connection.
- Review Privacy Settings: Regularly review and adjust privacy settings on social media platforms, apps, and online services to control what information is shared and who can see it.
- Limit Personal Information Sharing: Be cautious about the personal information you share online. Avoid posting sensitive details like your full address, phone number, or financial information in public spaces.
- Use Encrypted Communication: Use messaging apps that offer end-to-end encryption for private conversations. This ensures that only you and the intended recipient can read the messages.
- Be Cautious of Apps: Only download apps from reputable sources like official app stores. Review app permissions and avoid granting unnecessary access to your personal data.
- Regularly Monitor Accounts: Keep an eye on your bank accounts, credit cards, and online accounts for any unauthorized activity. Report any suspicious or unauthorized transactions immediately.
- Secure Online Shopping: Shop only on secure and reputable websites. Look for the padlock icon in the address bar, indicating a secure connection.
- Educate Yourself: Stay informed about common online scams, phishing techniques, and best practices for online security. Knowledge is your best defence.

By adopting these best practices, you'll be better equipped to protect your personal data and teach others how to maintain a secure online presence. We all need to learn how to be more responsible with technology, regardless of age.

Understanding and managing your digital footprint empowers you to harness the benefits of the digital world while mitigating potential risks and protecting your privacy and online reputation.

3. Protecting Health and Well-being. Ensuring the preservation of health and well-being while engaging with digital technologies is essential. This involves the ability to steer clear of health-related risks and threats to both physical and psychological wellness during digital interactions. Furthermore, safeguarding oneself and others from potential dangers in digital realms, such as cyberbullying, is paramount. An awareness of digital tools promoting social well-being and inclusion is also vital, enhancing overall digital experiences.

There are some good practices such as **critical consumption** and **digital detox** to improve your well-being. Critical consumption means applying critical thinking when evaluating online content and distinguishing accurate information from misinformation to protect your mental health. On the other hand, a digital detox is a practice of regularly disconnecting from screens, engaging in offline activities, and prioritising face-to-face interactions for a balanced digital lifestyle.

By navigating the digital landscape mindfully, seniors can harness the benefits of technology while prioritizing their mental and physical health, ensuring a rewarding digital journey. At the same time, there are some risks and online practices that could affect our well-being. When vulnerable groups such as seniors engage in behaviours that could harm their health, someone needs to explain to them where these harmful practices come from so that they can be stopped.

Online Communication and Cyberbullying

Online communication offers a wealth of opportunities for connecting, collaborating, and sharing ideas, but it also comes with challenges such as cyberbullying. Addressing cyberbullying among seniors is crucial. As older adults embrace digital spaces, they can become targets of online harassment. Words and actions can cause significant emotional distress.

Addressing Cyberbullying:

Cyberbullying involves using digital communication tools to harass, threaten, or humiliate individuals. If you encounter or suspect cyberbullying:

- Don't Respond: Avoid engaging with the bully. Responding might escalate the situation.
- Save Evidence: Keep records of the bullying messages, posts, or comments. These can be useful if you need to report the incident.
- Report and Block: Use platform-specific reporting tools to report cyberbullying. Block the bully to prevent further contact.
- Seek Support: Talk to a trusted friend, family member, teacher, or counsellor about the situation. Don't hesitate to ask for help.
- Involve Authorities: If the bullying involves threats, harassment, or illegal activities, consider involving law enforcement.
- Promote Digital Empathy: Encourage empathy and kindness in online interactions. Be part of creating a positive online culture.

Remember that online communication has real-world consequences, and your words and actions can impact others' well-being. By practising respectful and responsible online communication and taking a stand against cyberbullying, you contribute to a safer and more inclusive digital environment.

Social Media Safety

Social media platforms offer opportunities for connection, communication, and self-expression, but they also come with potential privacy and security risks. For adults 55+, beware of scams targeting this specific group and verify before engaging in any digital practice. Prioritize respectful, positive interactions, creating a secure digital space tailored to your generation. To ensure your safety while using social media, consider these tips:

Privacy Settings and Account Security:

- Adjust Privacy Settings: Regularly review and customize privacy settings on your social media accounts to control who can see your posts, photos, and personal information.
- Use Strong Passwords: Create unique and strong passwords for each social media account. Enable two-factor authentication (2FA) for an extra layer of security.
- Be Selective with Friend Requests: Only accept friend or connection requests from people you know and trust.
- Limit Sharing: Be cautious about sharing sensitive personal information, such as your address or phone number, publicly on your profile.
- Review App Permissions: Periodically review and revoke permissions for third-party apps that are connected to your social media accounts.

- Beware of Unsolicited Messages: Be cautious of unsolicited messages, especially those that ask for personal information or financial assistance. This can be very harmful for vulnerable adults.

Remember that social media safety requires ongoing vigilance and thoughtful consideration. By following these tips, you can enjoy the benefits of social media while minimizing potential risks to your privacy and security.

4. Protecting the environment. The digital world involves responsible device consumption and waste management. Educate others about the environmental impact of digital technology. Prioritizing energy efficiency and responsible e-waste management conserves resources, reduces emissions, and combats climate change. By adopting eco-conscious practices, we contribute to a greener, more sustainable digital landscape, making a positive difference in our planet's future.

Eco-conscious Digital Consumption

Eco-conscious digital consumption refers to the mindful use of digital resources and technologies with a focus on minimizing environmental impact. It involves adopting practices that reduce energy consumption, electronic waste, and overall carbon footprint associated with digital activities. This approach emphasizes making environmentally responsible choices in terms of device usage, data storage, online behaviours, and the overall digital footprint, contributing to a more sustainable and greener digital landscape.

As a digital consumer, there are various ways to protect the environment:

- Energy Efficiency: Opt for energy-efficient devices and settings to reduce electricity consumption and carbon footprint.
- E-waste Management: Properly dispose of electronic waste by recycling or donating old devices to extend their lifespan.
- Digital Minimalism: Limit unnecessary digital consumption, reducing server loads and energy usage associated with data storage.
- Paperless Practices: Embrace digital documents, reducing paper usage and conserving forests and resources.
- Mindful Downloads: Choose to download and store only essential files, minimizing data usage and server strain.
- Smart Streaming: Stream content at lower resolutions to reduce data demands and energy use during streaming.
- Unsubscribe Unwanted Emails: Trim down your email subscriptions to reduce data storage and energy use on servers.
- Cloud Efficiency: Regularly clean and organize cloud storage to optimize server space and minimize energy use.
- Eco-friendly Apps: Opt for applications that prioritize energy efficiency and sustainable practices.
- Device Lifespan: Extend the life of your devices through proper maintenance, reducing the need for frequent replacements.

By adopting these practices, you can play your part in conserving resources and minimizing the environmental impact of your digital consumption.

2.4.4. Practical exercise

Reviewing and Enhancing Social Media Privacy

The activity has the objective of reviewing and adjusting Social Media privacy settings to enhance participants' online security and privacy. Participants will use their personal devices to enter their security and privacy settings on Social Media platforms or, if they don't have one, their Google account to browse the internet safely. Participants are 55+ years old and some of them may encounter difficulties during the activity. The facilitator together with other digital facilitators should help them whenever they encounter a problem.

This activity can also be facilitated through a video call on Zoom or Google Meet with a small number of participants. In this case, the facilitator will give a share screen to the settings page of the particular platform and will explain each section while guiding the participants.

Step 1: Select a Platform: Choose one active Social Media platform preferred by participants (e.g., Facebook, Instagram, Twitter, LinkedIn) and if participants do not have Social Media accounts apply the activity to their Google accounts.

Step 2: Enter in Login and Access Settings:

- Log in to Social Media accounts.
- Locate and Access the Privacy settings section. This is usually found in the account settings or options menu.

Step 3: Review Current Settings: Review current privacy settings for visibility, posts, friend/connection requests, and personal information.

Step 4: Adjust Privacy Settings

Modify settings to enhance privacy. For example:

- Limit profile visibility to friends or connections.
- Set strict privacy settings for posts and photos.
- Control who can send friend/connection requests.
- Review and restrict third-party app permissions.
- Enable Two-Factor Authentication (2FA):
- Check if the chosen platform offers 2FA. If available, enable it for added account security.

Step 5: Review and Clean Up Content: Review posts, photos, and shared content. Remove anything that might compromise privacy or online security.

Step 6: Secure Your Password:

- Advise them to change their passwords to a stronger combination of characters.
- Update passwords for other linked accounts if applicable.

Step 7: Monitor Account Activity: Regularly check for unfamiliar activity or unauthorized logins. Many platforms offer activity logs or notifications.

Step 8: **Facilitate discussion:** While you're at it, take some time to read up on the latest privacy and security features offered by the platform and open a discussion about online risks and ways to increase online privacy.

Step 9: **Reflect and Share**

- Reflect on the changes they've made and how they contribute to their online security and privacy.
- Advise participants to share their experiences and insights with a friend or family member to encourage them to review their social media privacy settings too.

Debriefing questions

- What other steps can be taken to protect our identity on Social Media?
- What is the most important feature of online security in your opinion?

2.4.5. Key takeaway

In the digital realm, securing your online presence involves key practices. Begin by considering potential impacts before sharing anything online. Regularly adjust privacy settings on accounts and platforms to control data access. Prioritize cybersecurity with strong passwords and two-factor authentication. Periodically audit profiles, ensuring accuracy. Stay informed through ongoing education. Treat online interactions with respect and mindfulness, just as in-person interactions.

2.4.6. Advice

Whenever this course is provided face-to-face, it is important for the educator to possess visual support to show and explain the content of the training (a PowerPoint presentation, a hard copy of the theoretical part, and enough PCs for the users to do the exercises by themselves).

Moreover, a group dynamic is advisable, especially when performing the practical exercise, so as to gather opinions, knowledge and responses to the general input provided by the educator.

2.4.7. References

DigComp 2.2: The Digital Competence Framework for Citizens - With new examples of knowledge, skills and attitudes, Publications Office of the European Union, JRC128415, 978-92-76-48882-8 (online), <https://publications.jrc.ec.europa.eu/repository/handle/JRC128415>

Digital Competences Framework (DigComp 2.2) update published, <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=10193&furtherNews=yes>

2.4.8. Evaluation questions

1. What is one potential risk of oversharing personal information on social media?
 - A. Increased engagement with friends.
 - B. Enhanced digital reputation.
 - C. Exposure to cyberbullying.
2. What is the purpose of two-factor authentication (2FA)?

- A. It adds an extra layer of verification beyond just a password.
 - B. It helps you create strong passwords.
 - C. It provides additional security by requiring two passwords.
3. How can you recognize a phishing email or message?
- A. By providing your personal information.
 - B. By opening attachments from unknown sources.
 - C. By checking for suspicious sender email addresses and hovering over links.
4. What is a digital footprint?
- A. A digital version of your physical footprint.
 - B. The information you leave behind when using the internet.
 - C. A type of malware.
5. How can you handle cyberbullying on social media?
- A. Block and report the offender, and seek support.
 - B. Ignore it and hope it goes away.
 - C. Engage in a heated argument with the bully.

2.4.9. Facilitation Sheet: Social Media Safety and Online Security

Title	Social Media Safety and Online Security
Time	2 h
Target group	Seniors Adults 55+
Learning outcomes	<ul style="list-style-type: none"> - Recognize potential risks and threats in the digital environment and demonstrate an understanding of proactive measures to mitigate them. - Utilize best practices for creating and maintaining strong passwords, as well as implementing secure authentication methods. - Evaluate and adjust privacy settings on Social Media platforms to ensure a safe and secure online presence.
Materials	Presentation Projector Internet connection Online Devices to login to Jamboard Feedback forms Markers, Whiteboard, Post-its
Facilitation steps	<p>Engage</p> <p>Introduction and Welcome: Greet participants and introduce yourself as the facilitator. Provide an overview of the workshop's goals and what participants can expect to learn. Clearly explain the agenda, schedule, and any ground rules for the workshop. Have each participant write on a Post-it or tell about an online threat or attack they have experienced or know about. Collect the post-its and make a spidergram on the board. Write in the center of the diagram the phrase "Online Risks". After going through each of the ideas from the participants brainstorm with them to find what competences we should improve to increase online safety.</p> <p>Explore</p> <p>Facilitate a group activity or discussion on engaging constructively in conversations. Have participants work in 4 groups to find some of the solutions they have to protect their data from malware attacks, online identity theft, their well-being from cyberbullying and the environment from the harmful effects of technology. Present what Online Security means within the DigComp Framework with a focus on:</p> <ul style="list-style-type: none"> ● Protecting devices ● Protecting personal data and privacy ● Protecting health and well-being ● Protecting the environment <p>Use the Jamboard app for teamwork with participants. Have them collect their ideas and possible solutions in the app. Don't explain all the DigComp subtopics mentioned above, but guide them how to match the homework given for the exercises with the correct reference areas. Participants will work in teams for 30 minutes, during which time they can come up with their own experiences, ways to stop or diminish online risks and ways to protect the security and integrity of both themselves and the environment.</p>

	<p>Explain Participants will present their ideas from the group activity. Supplement their ideas with information from the PowerPoint created for the activity and explain more about the DigComp Framework. Create a Q&A session on what it means to be a well-informed digital citizen. Provide participants with practical tips they can implement in their online activities.</p> <p>Elaborate At the end, participants will be invited to enter the settings of their phone or certain applications in the Privacy settings section. Have them review the settings to better protect themselves from online attacks and risks. The facilitators will help participants make the right choices and explain the steps they can take to protect the security of their Google account and Social Media accounts.</p> <p>Evaluate Reflection and Group Sharing: Ask participants to reflect on what they've learned and share insights with the group. Collect feedback from participants about the workshop's content, delivery, and activities. Ask them: <i>What other steps can be taken to protect our identity on Social Media?</i> and <i>What is the most important feature of online security in your opinion?</i></p>
<p>Methods</p>	<p>Lecture and Presentation Case Studies Brainstorming Group activity Spidergram Q&A</p>
<p>Evaluation</p>	<p>Debriefing Feedback forms from participants</p>
<p>References</p>	<p>PPT presentation</p>

2.5. Problem-solving

2.5.1. Scope

The scope of this module is to equip older adults aged 55+ with essential problem-solving skills in the context of digital technologies. The module will focus on four key aspects: Solving technical problems, Identifying needs and technological responses, Creatively using digital technologies and Identifying digital competence gaps.

Learners will explore how to address common technical challenges they may encounter while using digital devices and platforms. Additionally, they will learn to identify their specific needs and how to find appropriate technological solutions to meet those needs. The module will encourage learners to think creatively and resourcefully in using digital technologies to enhance their daily lives and engage in various activities. Furthermore, learners will gain insights into identifying gaps in their digital competences and develop strategies to improve their digital literacy effectively.

2.5.2. Learning Outcomes

By the end of this module, learners will be able to:

- Formulate effective approaches to solve technical problems related to digital devices and platforms
- Identify personal needs and select suitable technological solutions to address those needs
- Demonstrate creativity in using digital technologies for various practical purposes
- Evaluate their current digital competences and devise a plan to bridge any gaps in digital literacy effectively

2.5.3. Course content

In today's digital age, technology plays a significant role in our daily lives. This module aims to provide you with the knowledge and skills to effectively use digital technologies and address common challenges you may encounter. The module will equip you with essential skills to confidently navigate the digital world. First, delve into the art of problem-solving in **Solving Technical Problems** where you'll learn to troubleshoot and resolve issues with digital devices and platforms. Next, in **Identifying Needs and Technological Responses** discover how to assess your unique technological requirements and explore digital tools tailored to enhance your daily life. Unleash your creativity in **Creatively Using Digital Technologies** as you explore graphic design, video editing, storytelling, and more. Lastly, in **Identifying Digital Competence Gaps** embrace a growth mindset to recognize and improve your digital skills for an ever-evolving future.

Problem-solving within the DigComp framework is particularly valuable for adults aged 55 and above. It equips them to confidently navigate the digital landscape by tackling challenges effectively. This skill involves critically assessing situations, devising solutions, and implementing strategies to address digital issues.

For this age group, problem-solving encompasses both technical and practical aspects. It enables them to troubleshoot technical glitches, adapt to new digital tools, and make informed decisions in various online scenarios. Beyond technicalities, problem-solving aids in overcoming digital dilemmas related to privacy, security, and effective communication.

1. Solving Technical Problems

In today's increasingly digitalized world, the competency of Solving Technical Problems has become an indispensable skill. Solving Technical Problems refers to the ability to effectively identify and resolve various technical issues that users may encounter while navigating digital devices, applications, or online platforms. These technical problems can range from minor inconveniences, such as connectivity issues and software errors, to more significant challenges, such as device malfunctions or slow performance. As technology continues to advance, being equipped with the knowledge and skills to troubleshoot and overcome these obstacles has become crucial for individuals from all walks of life.

In this section of our module, we will explore the common challenges users face in the digital landscape and provide comprehensive step-by-step instructions to tackle them effectively. At the end of this section, you will have gained the confidence and know-how to navigate through technical glitches with ease, ensuring a smoother and more enjoyable digital experience. Whether you are a seasoned tech-savvy individual, a digital facilitator or just beginning to explore the digital world, mastering the art of solving technical problems will empower you to confidently navigate the ever-evolving digital landscape.

Connectivity Issues:

Problem: Your device is not connecting to the internet or experiencing slow internet speed.

Solution:

- [1] Step 1: Check your Wi-Fi connection: Ensure that your device is connected to a stable Wi-Fi network. Look for the Wi-Fi icon on your device's screen and verify that it shows a strong signal.
- [2] Step 2: Restart your router: Unplug your Wi-Fi router from the power source, wait for 10 seconds, and then plug it back in. This can often resolve minor connectivity issues.
- [3] Step 3: Verify your password: Double-check the Wi-Fi password you entered. Make sure it is correct and hasn't been changed.
- [4] Step 4: Reset network settings: If the problem persists, you can reset your device's network settings. Go to the settings menu, find the network or Wi-Fi settings, and choose the option to reset network settings.

Software Errors:

Problem: You encounter error messages while using software applications.

Solution:

- [1] Step 1: Restart the application: Close the software application and reopen it. Sometimes, errors can be temporary and may go away with a simple restart.
- [2] Step 2: Update the software: Check if there are any updates available for the software. Developers frequently release updates to fix bugs and improve performance.
- [3] Step 3: Reinstall the application: If the error persists, consider uninstalling the software and then reinstalling it. This can refresh the application and resolve issues caused by corrupted files.

Device Malfunctions:

Problem: Your device is not responding or behaving unusually.

Solution:

- [1] Step 1: Restart your device: A simple restart can often fix minor glitches and restore normal functionality.
- [2] Step 2: Check for hardware issues: Inspect your device for any physical damage or loose connections. If you find any issues, consult a professional technician for repairs.
- [3] Step 3: Update device firmware: Manufacturers release firmware updates to address hardware-related issues. Check the device settings or the manufacturer's website for any available updates.
- [4] Step 4: Perform a factory reset (with caution): As a last resort, you can consider a factory reset. However, keep in mind that this will erase all data and settings on your device, so back up your important data before proceeding.

Slow Performance:

Problem: Your device is running slowly or experiencing lag.

Solution:

- [1] Step 1: Close unnecessary applications: Check if multiple applications are running in the background. Close any unused apps to free up memory and processing power.
- [2] Step 2: Clear cache and temporary files: Over time, cached data and temporary files can slow down your device. Clearing them can improve performance. Go to settings, find storage or device maintenance, and choose the option to clear the cache.
- [3] Step 3: Delete unused files and apps: Remove any unnecessary files, photos, or applications to free up storage space.

By following these step-by-step instructions, you can troubleshoot and resolve common technical problems with confidence. Remember, technical challenges are a natural part of using digital devices, and with a little know-how, you can overcome them and enjoy a smooth digital experience.

2. Identifying Needs and Technological Responses

Identifying Needs and Technological Responses is a crucial digital competence that empowers individuals to recognize their unique technological requirements and make informed decisions in the digital landscape. It involves the ability to assess one's daily activities and challenges, identifying areas where technology can enhance overall well-being and productivity. By understanding personal needs, learners can explore and select suitable technological solutions, such as digital tools, devices, or applications, to address specific requirements effectively. This competency encourages individuals to engage with their social networks, seek support from peers and tech-savvy friends, and participate in technology workshops to gain insights and recommendations. Ultimately, mastering this competence enables individuals to leverage digital technologies to improve various aspects of their lives and embrace the opportunities offered by the digital age.

As you navigate the digital landscape, identifying your unique requirements will empower you to make informed decisions about the technologies that can enhance your daily life and overall well-being.

- **Assess Your Personal Needs:** Begin by reflecting on your daily activities and areas where you may encounter challenges or inefficiencies. Consider aspects such as communication with loved ones, accessing information, managing finances, or pursuing hobbies. Identifying these needs will guide you in seeking appropriate technological responses.
- **Explore Relevant Digital Technologies:** Research and explore various digital tools and devices that cater to your identified needs. For example, if staying connected with family and friends is a priority, look into video calling applications or social media platforms. If you wish to access news and information easily, consider news apps or online newspapers. Take advantage of senior-friendly smartphones, tablets, or smart home devices that offer accessibility features tailored to older adults' needs.
- **Seek Support from Family or Tech Enthusiasts:** Don't hesitate to involve your family members or tech-savvy friends in the process. They can provide valuable insights, recommendations, or even hands-on demonstrations of technologies that might suit your needs. Embrace this learning opportunity as a chance to bond with loved ones and explore digital solutions together.
- **Attend Technology Workshops or Webinars:** Many organizations and community centres offer workshops or webinars focused on technology use for older adults. Participating in these sessions can expand your knowledge and skills, allowing you to explore technological responses relevant to your needs in a guided setting. Don't be afraid to ask questions and engage actively in these learning environments.
- **Start with User-Friendly Technologies:** If you are new to using digital technologies, start with user-friendly devices and applications. Look for intuitive interfaces, clear instructions, and ample customer support resources. Gradually build your confidence by mastering one technology at a time before moving on to more advanced tools.

While doing these; don't feel overwhelmed by the abundance of digital technologies; take it one step at a time. Avoid investing in devices or applications without understanding how they address your specific needs and don't be discouraged by initial challenges; learning technology is a continuous process. Refrain from sharing sensitive personal information or passwords with unfamiliar sources.

Remember, identifying needs and finding technological responses is a personalized journey. By staying curious and proactive, you can discover digital solutions that enrich your life and empower you to embrace the opportunities that digital technologies offer.

3. Creatively Using Digital Technologies

Creatively using digital technologies is a vital digital competence that unlocks the artistic potential within individuals in the digital realm. This competency empowers learners to explore and employ various digital tools, applications, and platforms to express their creativity and innovation. It involves engaging in activities like graphic design, video editing, digital storytelling, virtual tours, and music composition to bring imaginative ideas to life. By joining online creative communities and collaborating with like-minded individuals, learners can share their creations and receive valuable feedback, fostering a supportive and inspiring environment. Creatively using digital technologies encourages learners to embrace a growth mindset, experiment fearlessly, and celebrate the diverse forms of self-expression made possible by digital tools. Through this competence, individuals find joy and fulfilment in the boundless opportunities for creativity and self-discovery in the dynamic world of digital technologies.

In today's fast-paced digital age, technology is transforming the way we live, work, and connect with others. Embracing digital technologies can open doors to new opportunities for creativity, productivity, and social engagement. Explore how to creatively use digital technologies.

- **Embrace Learning with Confidence:** Embracing digital technologies might feel overwhelming at first. But rest assured, you are not alone on this journey. Embrace this learning opportunity with confidence, knowing that you have the ability to adapt and grow in the digital world.
- **Explore Your Creativity:** Digital technologies offer a vast canvas for your creativity to flourish. From photo editing and graphic design to video creation and storytelling, we will explore various creative applications. Unleash your artistic side and bring your ideas to life through these exciting tools.
- **Connect with Others:** One of the most wonderful aspects of digital technologies is their power to connect people from all around the world. Engage with online communities, participate in virtual events, and join social media groups centred around your interests. Connect with like-minded individuals and expand your social horizons to improve your creativity.
- **Lifelong Learning:** Learning has no age limit, and digital technologies provide an ocean of knowledge waiting to be explored. Discover online courses, educational resources, and virtual lectures tailored to your interests. Lifelong learning has never been more accessible and fulfilling.
- **Digital Art and Design:** Explore graphic design software to create stunning visuals, artwork, and digital illustrations. Experiment with different colours, shapes, and styles to express your artistic vision. You can also use digital drawing tablets or touchscreen devices to create digital paintings and sketches.
- **Photo and Video Editing:** Enhance your photography skills by using photo editing software to retouch and manipulate images. Create collages, add filters, and play with special effects to give your photos a unique touch. Similarly, dive into video editing to compile and edit videos, adding transitions, text, and music to tell engaging stories.
- **Digital Storytelling:** Combine images, videos, and audio to create captivating digital stories. Use multimedia tools to craft narratives and share your experiences, memories, or fictional tales in an interactive and engaging format.
- **Blogging and Writing:** Start a blog to share your thoughts, stories, and expertise on subjects that interest you. Experiment with different writing styles and formats, such as articles, poems, or personal reflections, to showcase your creativity through words.
- **Podcasting and Audio Production:** Delve into podcasting by creating audio content on topics you are passionate about. Use recording software to produce and edit episodes, infusing your unique perspective and personality into each episode.
- **Virtual Music Creation:** Explore digital music production software to compose and record your own music. Experiment with virtual instruments and sound effects to craft melodies that resonate with your emotions and interests.
- **Social Media Creativity:** Express yourself on social media platforms by sharing content that reflects your personality and interests. Engage with others through visual posts, videos, and thoughtful captions that showcase your creativity.
- **Digital Scrapbooking:** Digitize your scrapbooking hobby using online tools and platforms. Organize your memories, photos, and mementoes in virtual scrapbooks, adding text, stickers, and decorations to preserve your special moments creatively.
- **Online Creative Communities:** Join online creative communities and forums where you can collaborate with others, share your work, and receive feedback. Engaging with like-minded individuals can inspire new ideas and provide valuable insights into your creative endeavours.

Remember, creativity knows no bounds in the digital world. Embrace the vast array of digital tools and platforms available, and let your imagination run wild. Whether it's visual art, storytelling, music, or any other form of expression, technology offers endless possibilities to explore and express your unique creativity. So, don't hesitate to dive in and use technology as your canvas for creative self-expression!

4. Identifying Digital Competence Gaps

Identifying digital competence gaps is a fundamental skill that enables individuals to assess their proficiency and knowledge in navigating the digital landscape. This competence involves a systematic self-evaluation process to recognize areas of strength and areas that need improvement in using digital tools, applications, and platforms. By identifying these gaps, learners can tailor their learning journey to address specific deficiencies and build on existing skills. It also fosters a growth-oriented mindset, encouraging learners to embrace challenges as opportunities for growth and development.

Engaging in this process involves acknowledging the diverse experiences and backgrounds of adults 55+, as well as their unique concerns when it comes to technology. By conducting thorough assessments, gathering feedback, and understanding their goals, we can create targeted learning experiences that address their digital competence gaps.

Ultimately, this journey aims to equip adults 55+ with the confidence and skills needed to navigate the digital world with ease and proficiency. It's about embracing their digital journey and ensuring they have the tools to participate fully in today's interconnected society. Here are some valuable tips to enhance your digital skills and embrace new opportunities.

Digital competence gaps vary widely, influenced by factors like age and access to technology. Common gaps include basic digital literacy, navigating online spaces, online safety, critical thinking for information evaluation, digital communication, problem-solving, digital creativity, adaptability, data privacy, and economic inclusion. Addressing these gaps empowers individuals to navigate the digital landscape effectively.

- **Understanding Digital Competence Gaps:** Digital competence refers to the essential knowledge, skills, and attitudes required to effectively navigate the digital landscape. Identifying digital competence gaps involves recognizing areas where you may have limited knowledge or experience with specific digital tools, platforms, or applications. Some examples are as follows:
 - o Microsoft Learn - For Microsoft-related skills, Microsoft Learn offers a range of learning paths and assessments to gauge your proficiency with Microsoft products and services.
 - o Google Digital Garage - Google's Digital Garage offers free courses on various digital marketing and online skills, and they provide assessments to test your knowledge.
 - o Quizlet - Quizlet is a versatile learning platform that offers digital flashcards and quizzes. You can find user-created quizzes for various digital skills topics.

Certainly, here are the essential strategies for digital facilitators to combat the digital divide and digital competence gaps among adults aged 55 and above, along with concise explanations for each point:

- **Equitable Access:** Ensure that technology and internet access are available to all participants, levelling the playing field for digital learning.

- **Tailored Training:** Create training programs designed specifically for adults aged 55 and above. Customized content respects their learning pace and preferences.
- **Personalized Guidance:** Provide individualized support to help participants navigate digital challenges. Tailored assistance boosts their confidence and addresses unique obstacles.
- **Community Engagement:** Foster a supportive community where older adults can connect, share experiences, and learn from one another in a comfortable environment.
- **Intergenerational Learning:** Encourage interaction between different age groups during sessions, promoting knowledge exchange and mutual learning.
- **Accessible Content:** Develop user-friendly materials and platforms to ensure easy comprehension, especially for those new to digital tools.
- **Promote Relevance:** Emphasize the practical benefits of digital skills, showcasing how these skills enhance daily life and communication.
- **Embrace the Growth Mindset:** The first step towards identifying and bridging digital competence gaps is to embrace a growth mindset. Understand that learning is a continuous process, and it's okay to not know everything about digital technologies. Embrace the challenges as opportunities for growth and improvement.
- **Self-Assessment:** Perform a self-assessment of your current digital skills and knowledge. Identify areas where you feel confident and proficient, as well as areas where you might need further development. This self-awareness will guide you in focusing on specific areas that require attention.
- **Task-based Assessment:** Engage in various digital tasks, such as creating a presentation, editing a photo, or using a spreadsheet. Pay attention to areas where you feel less confident or encounter difficulties. These tasks will highlight specific gaps in your digital competencies.
- **Monitor Problem-Solving Abilities:** Reflect on how you approach and solve digital challenges. Notice patterns of difficulty or areas where you frequently encounter roadblocks.

Through these strategies, digital facilitators can effectively guide older adults toward bridging the digital gap, empowering them to embrace digital tools and navigate the digital world with confidence. By understanding the significance of digital competence and recognizing areas that need improvement, you are taking a proactive step towards continuous growth and development. Engage in self-assessment, seek feedback from peers and instructors, and explore various assessment tools to gain insights into your digital skills. By utilizing these valuable tips, you can bridge the gaps in your digital competencies and confidently embrace new opportunities in the ever-evolving digital landscape. Remember, the path to digital empowerment starts with acknowledging your current standing and your determination to enhance your digital skills for a brighter and more successful digital future.

2.5.4. Practical exercise

Digital Photo Collage

Get ready for an exciting and creative journey as we dive into the world of digital photo collages! In this activity, we will use digital technologies to create visually stunning collages that tell our stories and capture our most cherished memories. Some platforms that you can use:

Canva (www.canva.com): Canva is a user-friendly graphic design platform that offers a wide range of templates and tools for creating beautiful photo collages. It provides drag-and-drop functionality and an extensive library of images, stickers, and fonts.

Fotor (www.fotor.com): Fotor is an online photo editing and collage-making tool that is suitable for both beginners and more advanced users. It offers various templates, photo effects, and collage layouts.

PicCollage (www.piccollage.com): PicCollage is a mobile app available for both iOS and Android devices. It offers a fun and easy way to create photo collages using images, stickers, and text.

Ribbet (www.ribbet.com): Ribbet is an online photo editing and collage-making platform that offers a range of tools and features to create personalized collages.

BeFunky (www.befunky.com): BeFunky is a comprehensive photo editing and graphic design platform that includes collage-making capabilities with customizable templates and layouts.

Step 1: Let's Get Inspired!

Take some time to explore the examples of digital photo collages provided on the online learning platform. Get inspired by how others have used visuals to tell captivating stories. Do a self-reflection session on themes or topics that resonate with you.

Consider family moments, hobbies, travel experiences, nature, or any other subject that holds special meaning to you. Engage in the discussion forum to share your thoughts and ideas. Feel free to ask questions or seek inspiration from other peers.

Step 2: Your Collage Vision

Choose the theme for the collage and gather digital photos that align with it. You can use personal photos or access royalty-free images from reliable sources. Through collages, you can address an issue of general interest to draw attention to the topic in order to get involved in solving that problem.

Experiment with the user-friendly photo editing tool or collage maker application we provided. Familiarize yourself with the features and tools to create your desired visual masterpiece.

Feel free to reach out to other participants or facilitators via the messaging system if you encounter any challenges or need guidance. Support others throughout the process.

Step 3: Shine and Share

Once your digital photo collage is complete, it's time to shine and share your creativity with the class! Submit your finished collage on the online learning platform, using the provided submission tab. In the discussion forum, post a brief description of your collage's theme and the emotions or stories you aimed to convey through it. Take the opportunity to appreciate and comment on your peers' collages, celebrating their creative achievements.

Step 4: Evaluate

Answer to the following questions:

- What steps did you take in the creative process?
- How do you think such content creation platforms can improve your skills?

2.5.5. Key takeaway

By fostering problem-solving skills, adults 55+ and their digital facilitators can proactively anticipate and prevent issues, enhancing their digital experience. This proficiency encourages a confident approach to technology, enabling them to navigate the digital world with resilience and adaptability. In an era where digital interactions are increasingly integral, honing problem-solving skills is an essential component of their digital literacy journey.

In the digital realm, learners can unleash their creativity through various avenues such as digital art, photo and video editing, storytelling, virtual tours, blogging, podcasting, and more. Embrace technology as a powerful tool to express yourself artistically, connect with others, and share your unique perspectives with the world.

Participating in a hands-on workshop where you can bring your own devices is a good idea. Embrace this opportunity to explore and experiment freely with troubleshooting techniques in a supportive environment. Don't hesitate to collaborate with fellow participants, sharing experiences and solutions. Seek guidance and assistance as needed, remembering the value of patience and persistence in problem-solving.

2.5.6. Advice

Encourage learners to experiment with different digital creative tools without fear of making mistakes. Create a safe space where they feel comfortable exploring their creativity and trying new things.

Recognize that learners may have diverse interests and preferences for creative expression and encourage learners to collaborate with their peers, share their creations, and provide feedback to one another.

2.5.7. References

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2.5.8. Evaluation questions

1. What should you do first if your smartphone is not connecting to the Wi-Fi network at home?

- A. Restart your smartphone.
 - B. Check the Wi-Fi settings on your smartphone.
 - C. Contact your Internet Service Provider (ISP).
2. If you have tried all troubleshooting steps and the Wi-Fi issue persists, what is the best course of action?
- A. Seek guidance from technical support professionals.
 - B. Forget the Wi-Fi network and try again later.
 - C. Change your smartphone's settings to fix the issue.
3. How can technology enhance creativity in the learning process?
- A. By limiting access to digital tools and encouraging traditional methods.
 - B. By offering a wide range of digital platforms and tools for artistic expression.
 - C. By discouraging learners from experimenting and trying new creative approaches.
4. Which of the following methods can help identify specific digital competence gaps effectively?
- A. Engaging in self-assessment and seeking feedback.
 - B. Exploring online learning resources and courses.
 - C. Limiting access to digital tools and platforms.
5. Match the following tips with the corresponding actions to identify needs and technological responses:

Tips:		Actions:
A. Assess Your Personal Needs		i. Reflect on daily activities and identify challenges or inefficiencies.
B. Explore Relevant Digital Technologies		ii. Research and explore digital tools and devices that cater to identified needs.
C. Seek Support from Family or Tech Enthusiasts		iii. Involve family or tech-savvy friends for valuable insights and recommendations.
D. Attend Technology Workshops or Webinars		iv. Participate in guided learning sessions to explore technology responses.
E. Start with User-Friendly Technologies		v. Begin with easy-to-use technologies and gradually expand your skills.

2.5.9. Facilitation sheet

Title	Create a poster about problem-solving with the help of technology
Time	2 h
Target group	Seniors Adults 55+
Learning outcomes	<ul style="list-style-type: none"> - Demonstrate proficiency in using digital photo editing tools to create awareness about the benefits of technology. - Express creativity and storytelling skills by selecting themes, images, and visual elements that effectively convey emotions and stories through their posters. - Engage in collaborative discussions, share work, and provide feedback to peers, fostering a supportive online learning community centred around creativity and artistic expression.
Materials	Digital photos Computers or laptops Presentation Projector Internet connection Paper and markers
Facilitation steps	<p>Engage</p> <p>Give participants the following real-case scenario: <i>Imagine you're working on an important project, and suddenly, your device starts acting erratically. The screen freezes, and commands go unanswered. Frustration sets in as you realize your device isn't responding as it should. This situation isn't just inconvenient; it could potentially lead to data loss, productivity setbacks, and even device damage.</i></p> <p>Ask them to brainstorm and find solutions to the problem and listen to their answers. After that, focus on the idea of solving the problem creatively and introduce the Problem-Solving component of the DigComp Framework. Discuss freely with participants the difference between the problems we face with technology and the problems we can solve with technology.</p> <p>Explore</p> <p>Explore the various digital photo editor platforms such as Canva. Familiarize your learners with their features, templates, and tools to choose the platform that suits your creative vision best. Talk about using technology creatively and present the activity of illustrating an awareness message about an issue in participants' lives that can be achieved with the help of technology. They can use personal images, royalty-free images from the Internet or directly from the Canva app. Give them the option of writing down a few ideas first to guide their creative process.</p> <p>Ask participants: <i>What problem can be solved with technology? What message do you want to promote? and How do you want to tell this story through pictures?</i></p>

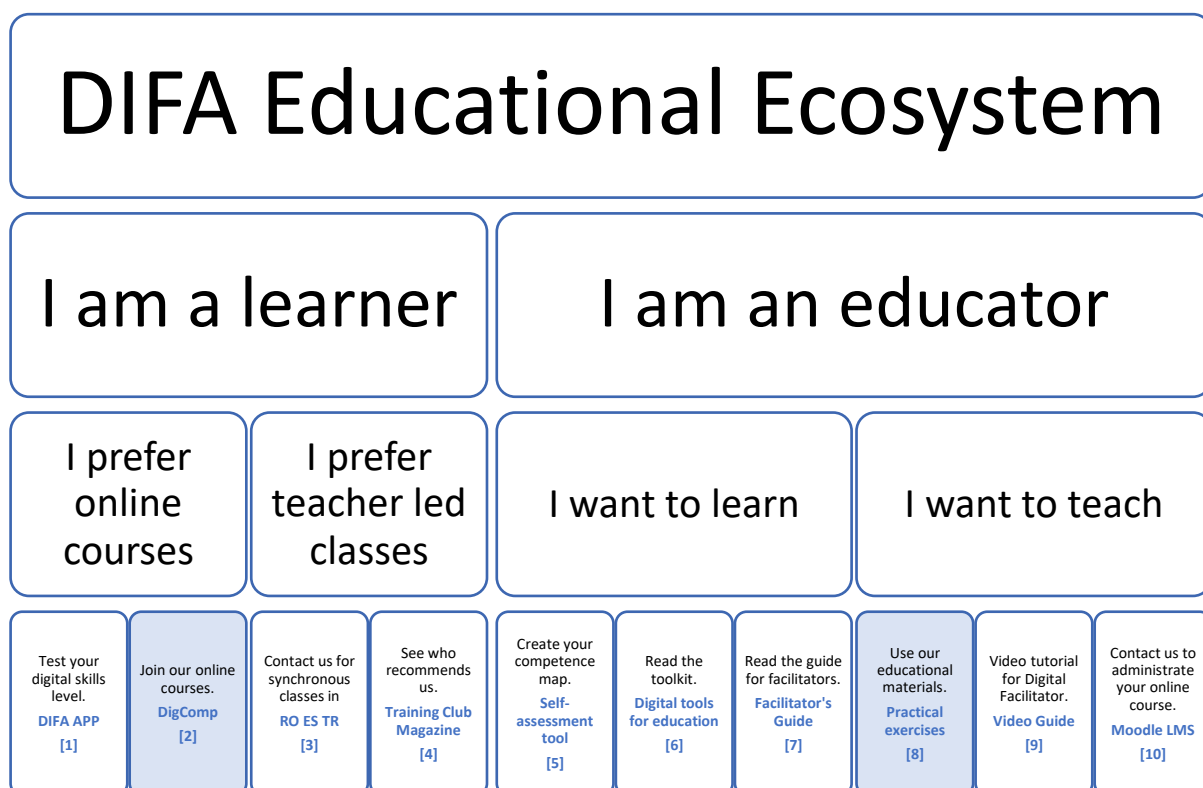
	<p>Explain Invite participants to explain their chosen theme for the digital poster and the emotions they aim to convey through it. Ask them to share their ideas with their peers to gain insights and feedback. If they don't have any ideas, brainstorm in groups to find solutions about what digital tools, devices or technologies help us in life and in what ways.</p> <p>Elaborate Elaborate on the process of creating their posters. They can also work in pairs on a PC/laptop if they have agreed on the same theme. Participate actively in discussions, offer encouragement, and provide feedback on their ideas and progress. Ask them to collaborate and share insights, inspiring each other's creativity and fostering a supportive learning environment. Help them in selecting material, downloading images, formatting text and choosing colours if they ask for technical help. At the end, ask them to present their projects and describe the techniques, tools, and artistic decisions made during the creation process. Learners will submit their finished work to the facilitator via e-mail.</p> <p>Evaluate Reflect on the skills they applied and the areas where they have grown in their digital creativity. Encourage them to offer constructive feedback to their peers, appreciating their achievements and providing suggestions for improvement. Ask them: <i>How do you think such content creation platforms can improve your skills?</i></p>
Methods	Demonstrations and Tutorials Project-Based Learning Peer Learning and Collaboration Real Case Scenario
Evaluation	From 1 (lowest) to 5 (highest), evaluate the activity in terms of the following items: <ul style="list-style-type: none"> - Instructional content - Benefit - Peer feedback
References	www.canva.com

Chapter 3. Integration in the digital educational ecosystem

Setting up a digital education ecosystem for adult education is intended to offer several advantages for both learners and educators. It allows for flexibility and convenience. This is especially beneficial for adult learners with busy schedules or those who live in remote areas, providing them the chance to study at their own pace and on their own schedule. In addition, educators can use data and analytics to track learner progress and adjust course materials and strategies accordingly, providing a more tailored learning experience.

While online education offers numerous advantages, it is essential to understand that it may not be suitable for everyone. Some individuals, especially adult learners, thrive in traditional classroom settings, and certain subjects as using digital tools and programs may require hands-on learning experiences.

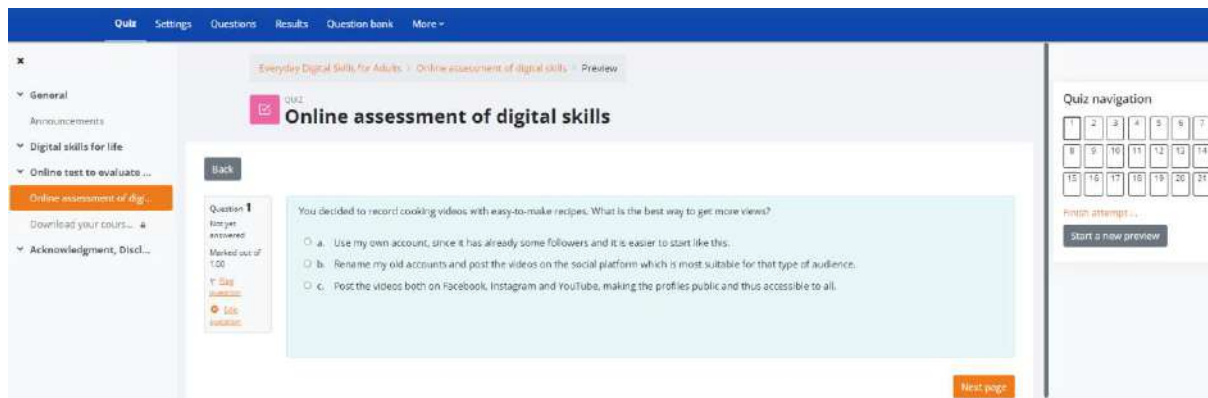
In order to respond to these challenges, the innovative DIFA55+ digital education ecosystem is adaptable to various learning styles, preferences and formats.



DIFA55+ digital education ecosystem is a comprehensive and interconnected network of digital tools, platforms, resources, and experts that support and enhance the process of teaching and learning.

3.1. DIFA55+ App

The era of digitalization brings us various challenges, apps and online tools. [DIFA55+ APP](#) is an invitation for users to self-evaluate and understand the areas which may need some improvements. This self-assessment quiz focuses on the way in which each individual is using digital skills in daily life. Upon completion of the 21 questions with a 50% passing score, the user may download the certificate showing the final score.

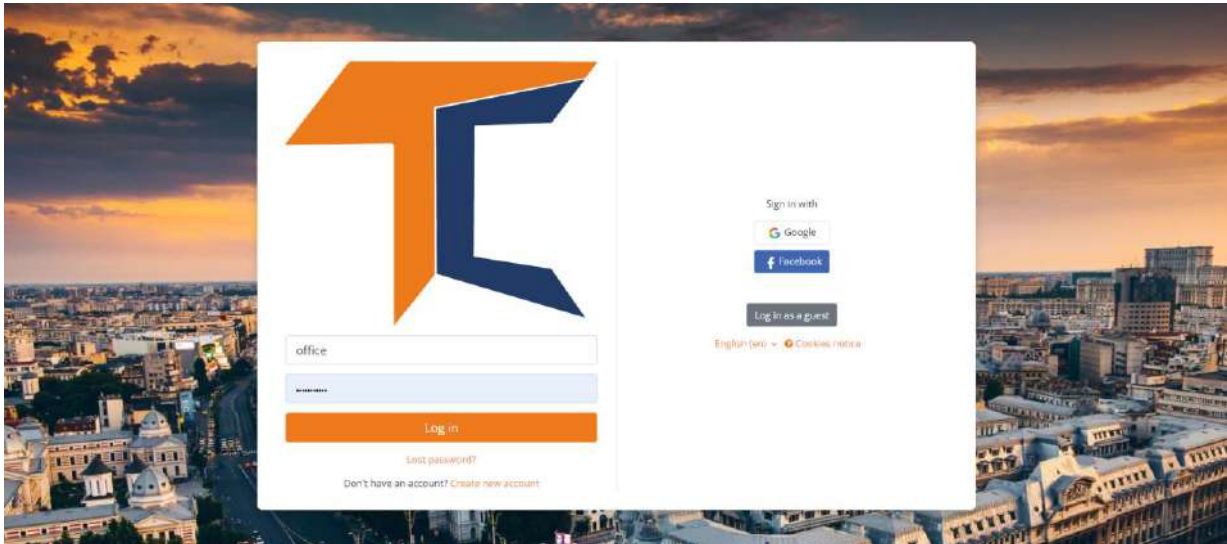


In addition, the instructor may find useful the methodology used for the development of the [Web App for everyday digital skills assessment](#).



3.2. DigComp online course

Five comprehensive modules including digital textbooks, videos, interactive activities and means for evaluation are part of the [DIGCOMP online course](#). All modules are in line with the Digital Competence Framework for Citizens addressing the competence areas of information and data literacy, communication and collaboration, digital content creation, safety, and problem-solving.

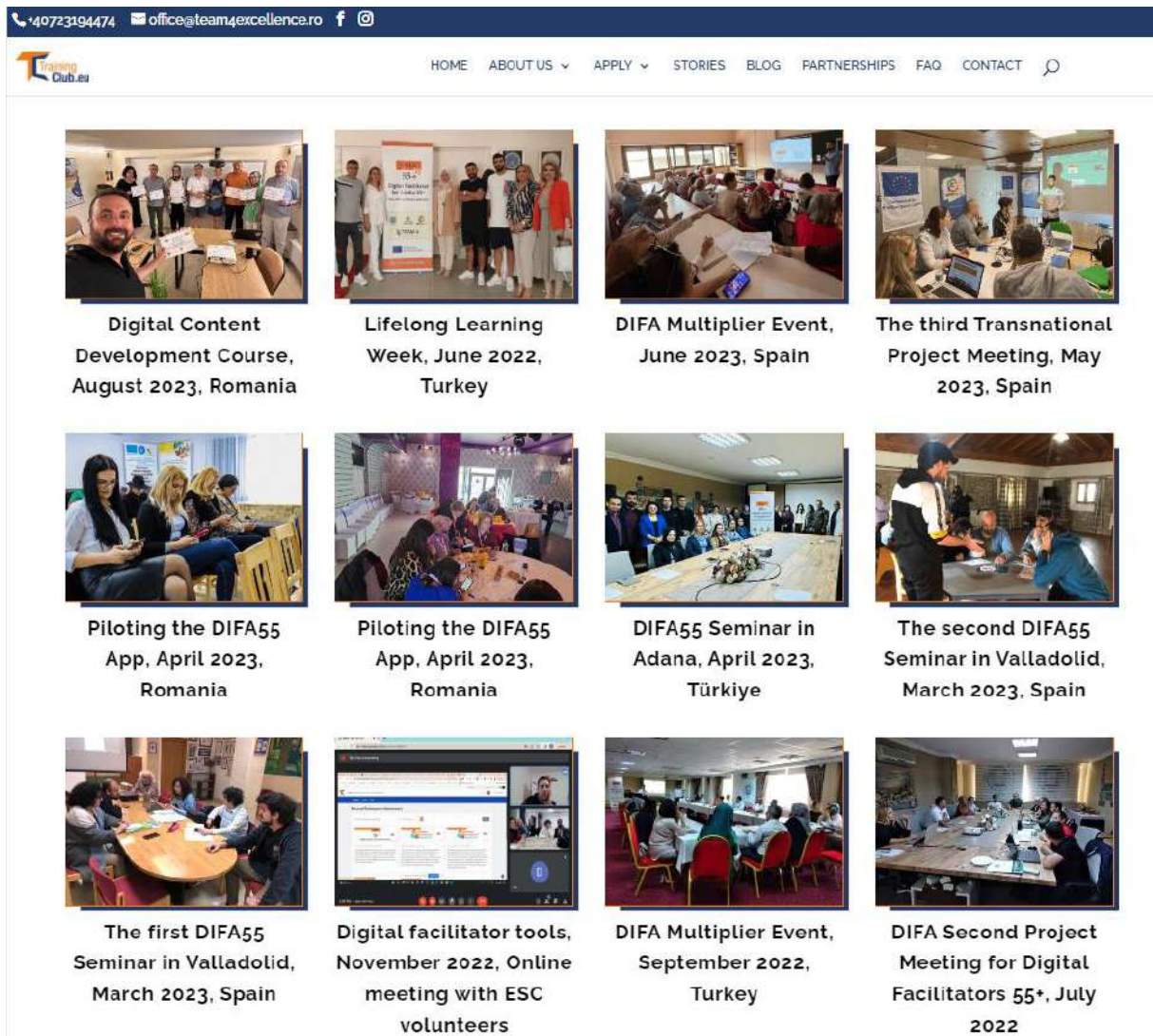


By the end of the course, after completing all the tasks, participants can download the course completion certificate.




3.3. Synchronous classes

Erasmus+ project partners from Romania, Spain and Turkey initiated the “DIFA55+ Digital Facilitator for Adults 55+” project and organized several activities in local communities. Digital facilitators from Formative Footprint (Valladolid, Spain), TEAM4Excellence (Constanta, Romania), Voluntariat Pentru Viata (Marasesti, Romania) and Saricam Halk Egitimi Merkezi (Adana, Turkey) are constantly running educational activities with adult learners in national languages. Get in contact and join the classes that suit you.




The screenshot shows the DIFA website with a navigation menu and a grid of 12 activity photos. Each photo is accompanied by a caption describing the activity, including the title, date, and location.


Activity Title	Date	Location
Digital Content Development Course	August 2023	Romania
Lifelong Learning Week	June 2022	Turkey
DIFA Multiplier Event	June 2023	Spain
The third Transnational Project Meeting	May 2023	Spain
Piloting the DIFA55 App	April 2023	Romania
Piloting the DIFA55 App	April 2023	Romania
DIFA55 Seminar	April 2023	Türkiye
The second DIFA55 Seminar	March 2023	Spain
The first DIFA55 Seminar	March 2023	Spain
Digital facilitator tools meeting	November 2022	Online meeting with ESC volunteers
DIFA Multiplier Event	September 2022	Turkey
DIFA Second Project Meeting for Digital Facilitators 55+	July 2022	




Contact: office@team4excellence.ro
 Web: <https://trainingclub.eu/>
 Location: Constanta, Romania



Contact: innovation@formativefootprint.com
 Web: <https://www.formativefootprint.com/>
 Location: Valladolid, Spain



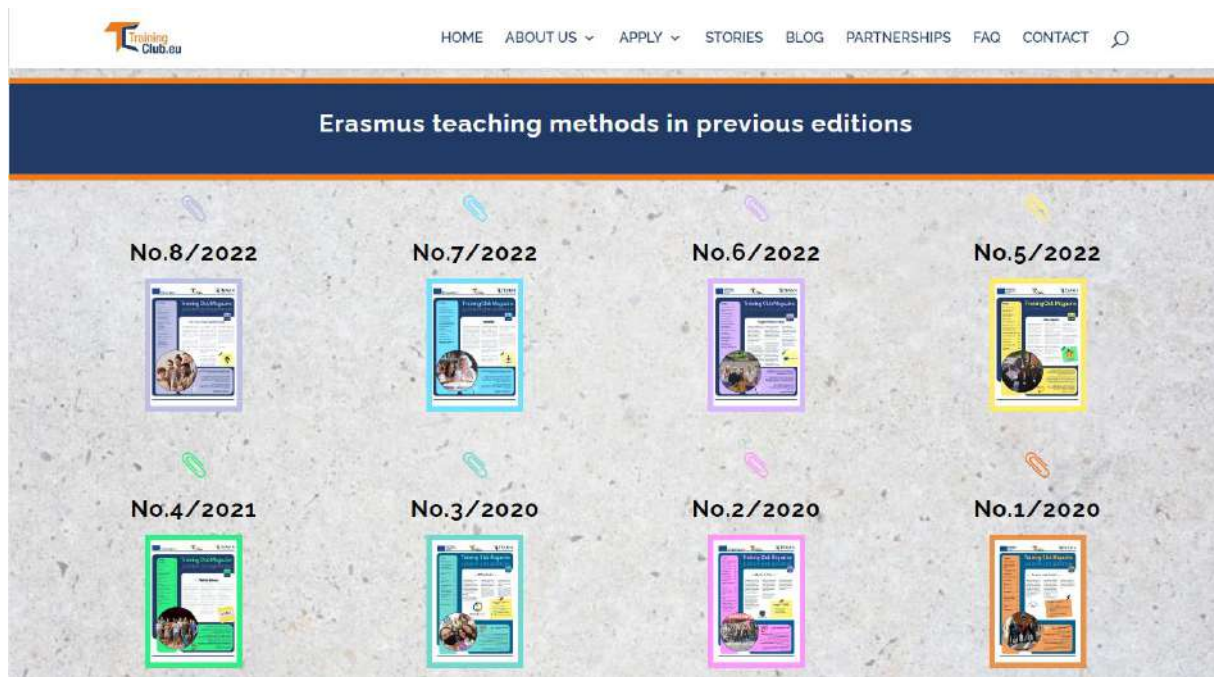
Contact: saricamhem@gmail.com
 Web: <https://saricamhem.meb.k12.tr/>
 Location: Adana, Turkey



Contact: contact@voluntariatpentruviata.ro
 Web: <https://voluntariatpentruviata.ro/>
 Location: Marasesti, Romania

3.4. Training Club Magazine

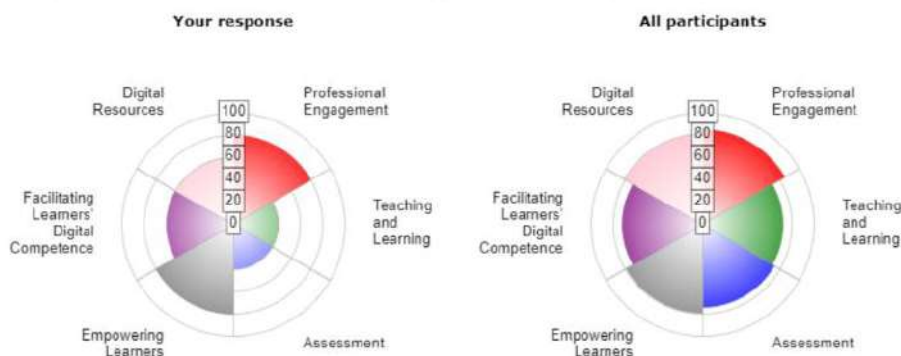
The [Training Club Magazine](#) is a collection of tried and tested non-formal Erasmus teaching methods, education tools and activities for youth, adults and trainers. Adult learners may wish to join our activities while educators and teachers may find inspiration for creating memorable learning experiences. Moreover, our magazine is open for publishing tried and tested activities, granting copyright and acknowledging the authors' work within the pages of the magazine.



3.5. Self-assessment tool

The competence map and the [online self-assessment instrument](#) designed by the research team to identify competence gaps in the six areas set out by the DigCompEdu framework may be used per se, adapted to particular narrower categories of target groups or utilised as good practice examples of competence maps and online assessment tools for other topics and target groups. This online self-assessment tool is to evaluate yourself and to generate your competence map. All questions of the quiz focus on how you are using your digital skills in your professional life.

Digital Facilitator Skills - Competence map



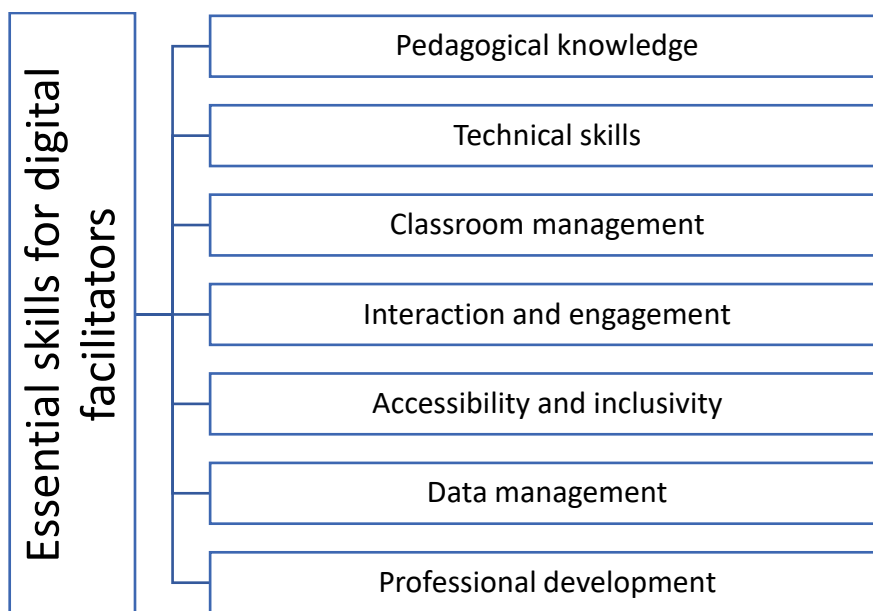
3.6. Digital tools for education

The [toolbox of instruments for creating engaging & active learning](#) is a collection of tools, which assist digital facilitators of adults 55+ in bridging the competence gaps. It sought to expand the research into the tools that may assist digital facilitators of adults 55+ in rounding their knowledge, attitudes and skills in the six areas that compose the competence map. It is thought that these will further assist field educators in designing and delivering digital courses.



3.7. Facilitator's guide

In order to support and enhance the delivery and management of online educational programs, the digital facilitators may find in this [Facilitator's Guide](#) useful information, tools and digital resources. The structure of this comprehensive guide covers the seven areas that are essential for digital facilitators of online courses.



3.8. Practical exercises

The educational materials for digital skills improvement comprise five fully engaging activities that can be implemented by adult educators in face-to-face classes or can be self-administered by adults willing to boost their digital skills. The proposed practical activities are designed for a duration of two hours of face-to-face training and are supported by facilitation sheets and PowerPoint Presentations. Educators may wish to adapt the activities to the learners' needs, adjust or simply implement them in different learning environments creating unique learning experiences.

Title	Become an active user of technology
Time	
Target group	
Learning outcomes	
Materials	
Facilitation steps	
Methods	
Evaluation	
References	

3.9. Video tutorial for digital facilitators

Adult educators and adult education organizations wishing to empower adults to be active technology users are invited to watch the video tutorial for digital facilitators, join our community and use the DIFA55+ e-learning environment to create, deliver and manage their own attractive educational programs.



<https://www.youtube.com/@trainingclub1637>

3.10. Moodle learning management system

[DIFA55+ online learning platform](#) is designed with and for educators and other adult education staff, with information, tools and resources to support and enhance the delivery and management of educational programs. It supports professional development helping educators stay current with digital tools and pedagogical techniques while offering unique learning experiences for their adult learners.



DIFA55+ digital education ecosystem is a complex network of digital tools and resources that revolutionizes the way education is delivered, experienced, and managed. The ecosystem aims to enhance access of adult learners, foster engagement, and facilitate the achievement of learning outcomes while addressing the unique needs and challenges of the digital age.



Recommendations for usability and transferability

The main advantage of the DIFA55+ education ecosystem is that the online is an environment that never sleeps, the MOOC is always open, the educational resources are always available online and anyone can learn anytime. All these are made available to any teacher, trainer and digital facilitator to organise classes 24/7 around the year, every year, no matter of time zone. Everything will be maintained and updated for many years from now.

For course developers

In this manual, the project researchers and adult educators developed a methodology that clarifies how to integrate the preferences of adult learners for the development of attractive and effective courses. An explanatory correlation table is provided to course developers to guide them during course design ensuring that the educational materials developed would foster active learning.

Moreover, the development of educational materials using the 5E instructional design strategy needs slightly different pedagogical approaches, from self-administered to educator-led training. The authors explained the approach in which each of the 5Es is integrated into the course activities online/ face-to-face/ synchronous or asynchronous.

For learners

Acknowledging the user experience encourages learners to actively engage with digital educational materials, platforms, and tools, the authors provided an overview of the digital education ecosystem. Platform features, summary and captioning, make it possible for all learners to access and benefit from the educational content.

The course materials especially designed starting from real-life examples are introduced to raise the interest, as well as to connect the content of the course to practical, real-world applications. This approach also demonstrates how the information or skills being taught can be immediately useful in the learners' personal or professional lives.

For adult education organizations

This educational package is integrated into the digital education ecosystem and can be used online, hybrid or face-to-face in English, Romanian, Spanish Turkish languages. It should also be noted that the resources are available online for people with disabilities. In the DIFA55+ Moodle, the research team implemented an accessibility pack for those with visual impairments. Taking advantage of these, adult educators as well as adult education organizations may wish to adapt and tailor educational content and activities to each learner's individual needs, pace, and learning style.

In addition, another evidence of the usability and transferability of the DIFA55+ educational ecosystem is that the full package can be provided upon request to other training institutions and may easily be installed in any Moodle platform.

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About the authors

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AKARÇAY NUR Yeliz has a bachelor's degree in international relations as well as a diploma in English Language Teaching. Yeliz is an English teacher and trainer with rich experience in non-formal education and the development of creative and innovative educational methodologies and activities. She is a fully qualified project leader with over 15 years of experience in designing and coordinating international projects, as well as providing a wide range of adult learning training courses on topics such as New Technologies and Digital Skills which are designed to be adapted to all levels and needs, as well as trainings for educators focusing on developing digital and ICT skills and how to use digital tools in learning environments. She also implements activities for low-skilled/low-qualified adults and has gained expertise in social innovation and inclusion through collaboration with adult education institutions across Europe.

AKILLI Alpaslan is the manager of Sarıçam HEM. He has extensive knowledge and experience in project management and implementation for EU-funded projects. He has more than 25 years of professional experience in 'Education, Management, Inspection Planning' as well as assessment and evaluation studies.

BARBU Daria, graduated from the Faculty of Arts and is a specialist in designing non-formal educational activities. She holds the project assistant position and is in charge of the coordination of seminars, workshops and webinars with adult learners. Throughout the implementation period, she also coordinated the communication campaigns, ensuring that the project scope and aim were accurately and effectively transmitted.

CARABIAS Manuel, PhD is teaching at the University of Valladolid the subject “Programs and plans for adult education and seniors”. He holds a Master's Degree in Psychopedagogy and a PhD in lifelong learning. Thanks to his experience in working with adults, he is the Project Director at Formative Footprint and is in charge of the educational department. Manuel has experience in designing new training processes adjusted to the European Qualifications Framework and European standards such as key competences, EntreComp, DigComp and ESCO.

CHIRIS Bogdan completed his studies at the Faculty of Physiotherapy. He is the president of the Voluntariat Pentru Viata Association since 2018 and deals with the organization and coordination of the activities of all employees of the Association. He coordinates activities regarding the Association's participation in the development of projects and the decision-making processes.

DRAGAN Daniel completed his studies at the Faculty of Law. He has been working as a project manager at Voluntariat Pentru Viata Association since 2014. During this period, he has implemented more than 30 projects financed by Erasmus+ and the European Solidarity Corps. Since 2011, Daniel is also the director of the O Noua Sansa Home for Elderly People in Marasesti and has extensive experience in working with elderly people.

SUDANO Damiana is an adult educator responsible for the volunteer process inside Deses-3. Moreover, she is the project manager for Erasmus+ projects. She led five international projects for young people and adults, participating in the preparation, writing, development and evaluation phases. Damiana graduated in Languages and Cultures for tourism and international trade, as well as from the Superior School of ethno-tourism.

About partner organisations



TEAM4Excellence (T4E) is a Romanian association aiming to improve the quality of life through education, research and consulting activities. To address societal challenges, T4E provides learning opportunities and career advice for social inclusion, development and employability of people, and equips trainers with key competences and skills to foster personal as well as professional development. Within 30+ EU-funded projects, the association produces and transfers innovation, experience and know-how through cooperation with domestic and international partners. By hosting events, training courses and conferences, T4E strengthens collaboration between people, supports organisations and bridges gaps between generations. The wide expertise in management enables T4E staff to provide consultancy to large companies and SMEs using EFQM Model and Business Model Canvas.



Sarıçam Halk Eğitimi Merkezi (Sarıçam Public Education Center) is a public institution founded in 2009 in Adana, Türkiye and affiliated with the Ministry of National Education's Directorate General for Lifelong Learning. Sarıçam HEM, which provides training services all year, including weekends and evenings, performs tasks in accordance with the principles and objectives of non-formal education. Since 2010, Sarıçam HEM has been in charge of the execution and planning of adult education services in the areas

of education, training, guidance, information access, counselling, culture, arts, and sports. Sarıçam HEM provides non-formal educational activities in collaboration with various governmental and private institutions, as well as volunteer organisations. Its main responsibilities include implementing training activities, as well as assisting and monitoring training activities. Sarıçam HEM also conducts activities aimed at ensuring the adaptation of adults who have not completed formal education to the constantly changing technological, social, and cultural conditions.



professional experts in education, training and innovation. This brought the organization to work as a training and research centre, specialised in topics related on one hand to education and training, on the other hand to innovation.

Formative Footprint (FFSL) is an educational design organization located in Spain, in the province of Valladolid. FFSL is specialized in the design and creation of new training processes tailored to the specific needs of the 21st century. Based on personal and professional needs, FFSL implements a methodical process that ensures the creation of new practical and successful educational processes that manage to stop previously detected needs/problems that organizations and citizens have. Formative Footprint has built up a team of



association is accredited as a social services provider and it implements projects involving elderly care services at home and in residential centres. To offer multidisciplinary services for individuals who are in a critical social difficulty, they conduct social research and monitor the phenomenon of social exclusion, plan programs of assistance for individuals who are in social crisis and train professionals in working with underprivileged people.

Asociația Voluntariat Pentru Viață is an NGO, based in Marasesti, Romania, founded in 2012 on the initiative of some specialists in the field of education, art, history and social assistance. Their mission is to promote volunteering and civic consciousness by developing activities that respond to the local needs of the community to become aware of the value of volunteering as a tool for active citizenship and human solidarity. A large part of the activities is focused on supporting disadvantaged people to have access to education. The

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Appendix 1 Evaluation quiz check sheets

Evaluation quiz no.1 check sheet – correct answers

1B 2A 3C 4A

Evaluation quiz no.2 check sheet – correct answers

1C 2A 3C 4C 5 match (A->i) (B->ii) (C->iii) (4->iv)

Evaluation quiz no.3 check sheet – correct answers

1A 2A 3B 4B

Evaluation quiz no.4 check sheet – correct answers

1C 2A 3C 4B 5A

Evaluation quiz no.5 check sheet – correct answers

1B 2A 3B 4A 5 match (A->i) (B->ii) (C->iii) (D->iv) (E->v)



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