



**information  
matters**

# Training Programme **for Online Courses**

## **Module 4**

### Media Literacy Hardware & Software



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## Description for online Lesson

Hello and welcome to Module 4 of our course. Today we will cover the topic of Hardware and Software. This module is structured in order to introduce the seniors into the basic concepts of digitalization and news and how these two concepts are going to link together in the future, in a process that already started a few years ago. In order to get them closer to digital media, we want to support the understanding of the basics of hardware and software, internet and applications (APPS description regarding phone/tablet).

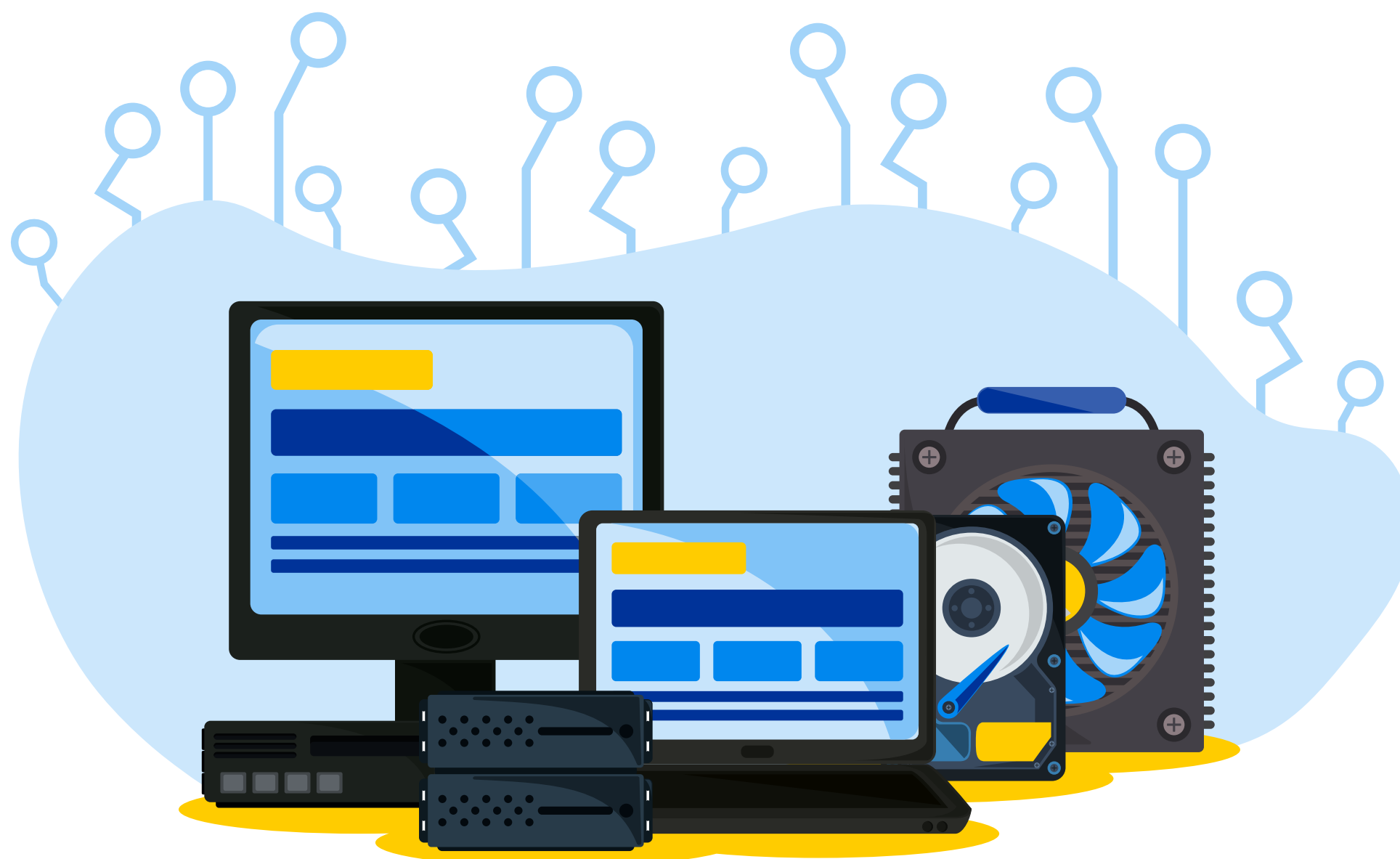
### Learning Outcomes:

By the end of this module, participants will be able to understand why digital skills are important in daily life and provide foundational knowledge to facilitate the hardware and software training for older people.

### Keywords:

Mouse, keyboard, Smartphone, laptop, PC, router, connection, Zoom, Teams, Kahoot!, GMeets, Drive, Padlet, applications/apps.

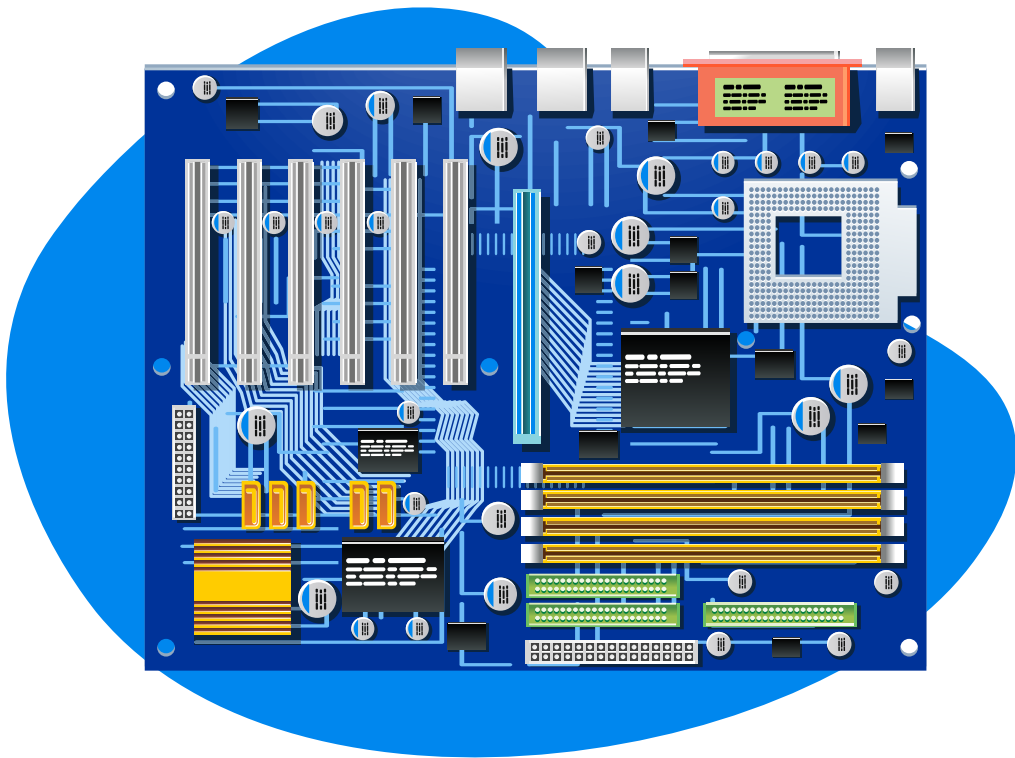




## Hardware

Hardware includes the physical parts of a computer, such as the case, central processing unit (CPU), random access memory (RAM), monitor, mouse, keyboard, computer data storage, graphics card, sound card, speakers and motherboard. And why is it important? Because it's recommended for us, all of us, to know how to properly use a device and what would be the steps if something is not working.

## Examples of Hardware elements:

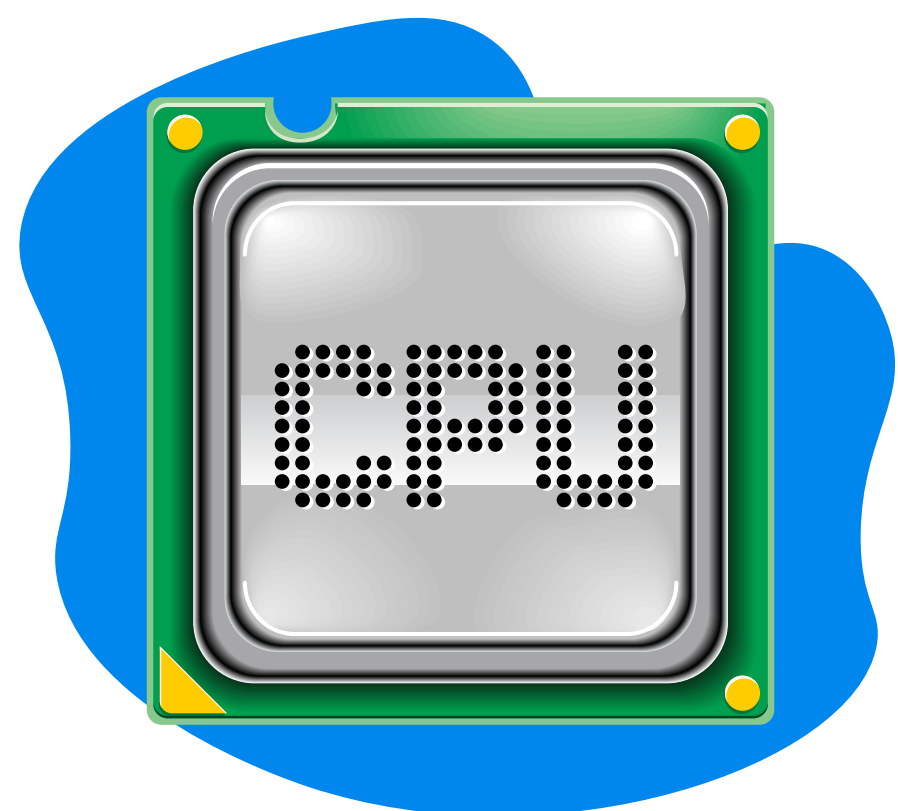


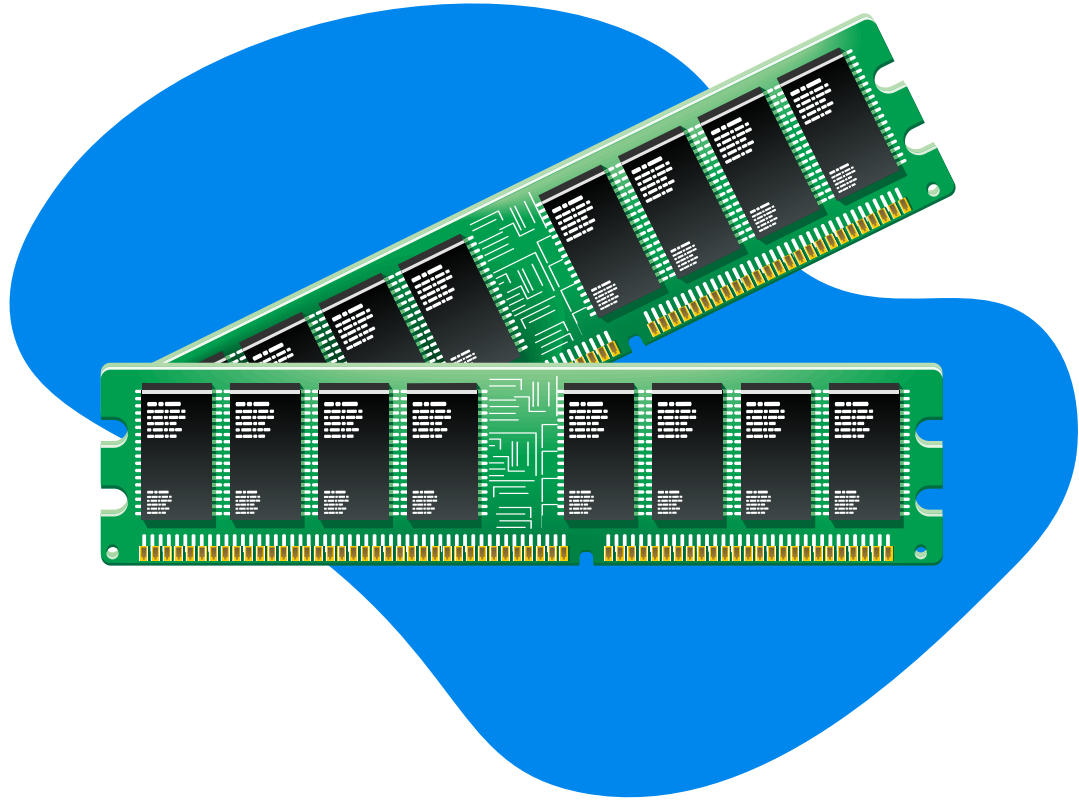
### **Motherboard:**

This is a printed circuit board that holds the central processing unit (CPU) and other essential internal hardware and functions as the central hub that all other hardware components run through.

### **CPU:**

The CPU is the brain of the computer that processes and executes digital instructions from various programs; its clock speed determines the computer's performance and efficiency in processing data.





## RAM:

RAM - or dynamic RAM - is temporary memory storage that makes information immediately accessible to programs; RAM is volatile memory, so stored data is cleared when the computer powers off.

## Hard drive:

Hard disk drives are physical storage devices that store both permanent and temporary data in different formats, including programs, OSes, device files, photos, etc.



**Mouse:**

A mouse is a hand-held pointing device that moves a cursor around a computer screen and enables interaction with objects on the screen. It may be wired or wireless.

**Keyboard:**

A keyboard is an input device featuring a standard QWERTY keyset that enables users to input text, numbers or special characters.

**Monitor:**

A monitor is an output device similar to a TV screen that displays information, documents or images generated by the computing device.



**Camera:**

A camera captures visual images and streams them to the computer or through a computer to a network device.

**Speaker:**

A speaker is an external audio output device that connects to a computer to generate a sound output.

**Headphones, earphones, earbuds:**

Similar to speakers, these devices provide audio output that's audible only to a single listener.

**Microphone:**

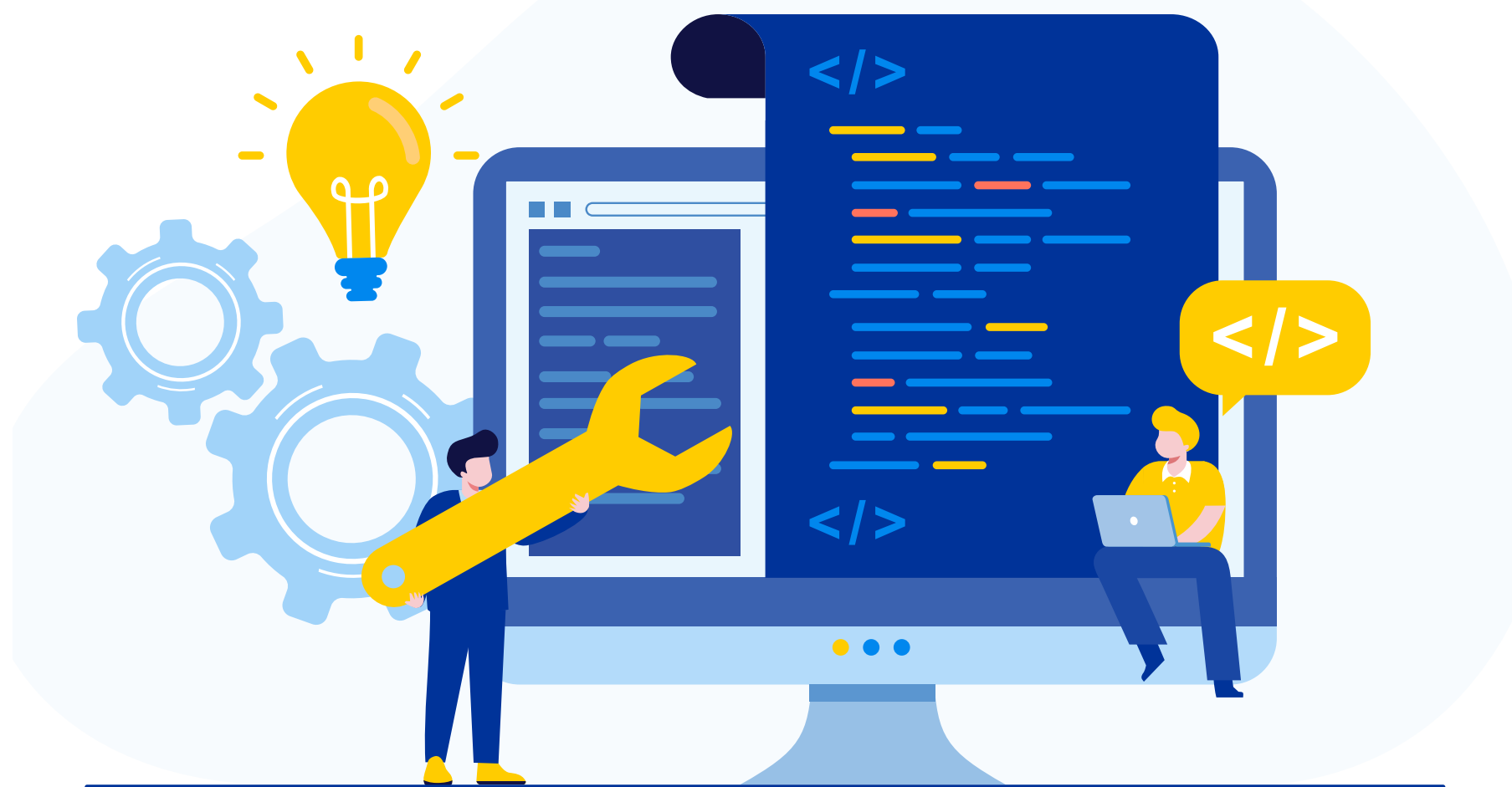
A microphone is a device that translates sound waves into electrical signals and supports computer-based audio communications.

**Printer:**

Printers render electronic data from a computer into printed material.







## Software

Software is a set of computer programs and associated documentation and data. Meaning that in order to read some news online, you use the software by opening a browser or an application on your phone or tablet, while the browser or application works as a link between the hardware components and the results you want to have.

There is a main difference between software and a program. Both are for enabling the computer to perform specific tasks. The software is the collection of programs. We have created a program to perform the task and they compile. If there is no error in the program then the program is sent to create a software. Program is the set of instructions that are written by a programmer in a language while the software is a collection of programs that will enable the system to perform the specific task.

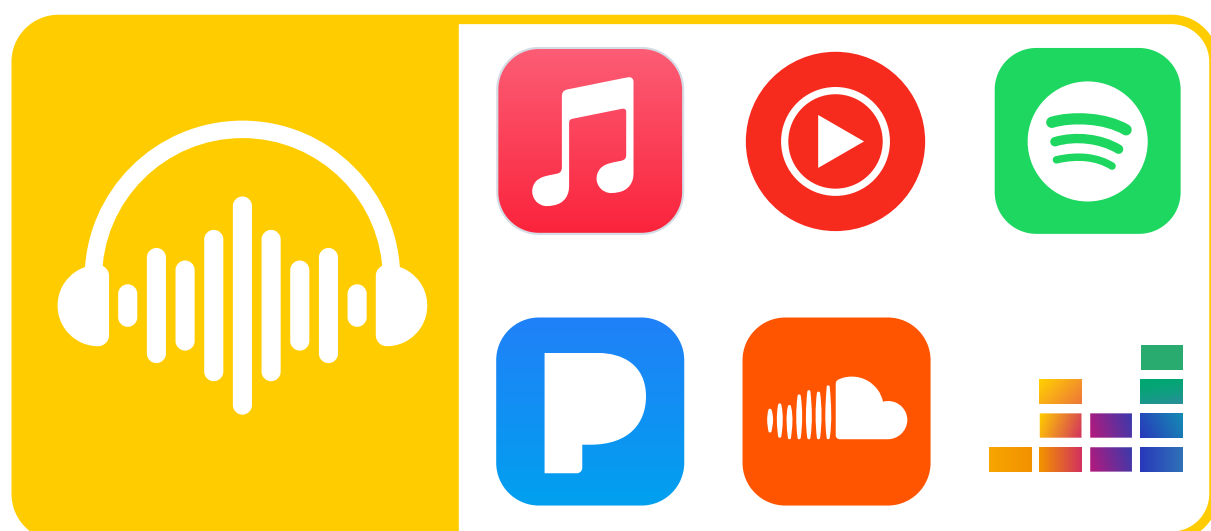


### The Microsoft suite (writing & presentation):

Office, Excel, Word, PowerPoint, Outlook, etc.

### Internet browsers:

Firefox, Chrome, Safari, Internet Explorer/Edge, Opera, Brave



### Music software:

Apple Music, YouTube Music, Spotify, Pandora,

### Communication software:

Teams, Skype, Slack, Zoom, Viber, WhatsApp



## Validation of the Module

After the activities done in Hardware and Software parts, the participants will be able to recognize them both in a better way. And so, they will be able to differentiate between the two elements of the digital world.

Congratulations on taking this important step towards understanding and improving the knowledge about hardware & software. We encourage you to continue with the fifth lesson, good luck!



## Introduction

This module is structured in order to introduce the seniors into the basic concepts of digitalization and news and how these two concepts are going to link together in the future, in a process that already started a few years ago. In order to get them closer to digital media, we want to support the understanding of the basics of hardware and software, internet and applications (APPS description regarding phone/tablet).

## Learning Outcomes

By the end of this module, participants will be able to understand why digital skills are important in daily life and provide foundational knowledge to facilitate the hardware and software training for older people.

## Main keywords

Mouse, keyboard, Smartphone, laptop, PC, router, connection, Zoom, Teams, Kahoot!, GMeets, Drive, Padlet, applications/apps.

## Subjects

### Understanding Software & Hardware:

#### What is the hardware part?

- » Introduction to key concepts
  - Elements of hardware that are important to know;
  - Testing the hardware performance and skills when using digital tools;
  - Learning by doing when it comes to hardware skills for everyday use.





#### Why is the software part?

- » Knowing to use the following:
  - the Microsoft suite;
  - Internet browsers;
  - Music software;
  - Communication software.





## Useful resources

-  <https://www.indeed.com/career-advice/career-development/what-are-basic-components-of-computer-hardware>
-  <https://www.indeed.com/career-advice/career-development/web-app-vs-mobile-app>
-  <https://www.indeed.com/career-advice/finding-a-job/what-are-applications>
-  <https://www.netsolutions.com/insights/11-best-news-apps/>  
[https://journalists.feedspot.com/european\\_news\\_website](https://journalists.feedspot.com/european_news_website)

## Activity 1#: Hardware performance game

For this activity, the participants will not get theoretical input, but they will get to check and verify their basics through learning and doing methods. This is one activity split in two parts.

### A. Learning objectives: test your hardware performance!

- Participants will start to recognize the importance of hardware in their digital lives.
- Participants will see the links between some of the components of the hardware devices and gadgets.
- Participants will remember the knowledge about the hardware basics and tools and will improve their performance in virtual space.

### A. Settings/materials/duration

- Settings: Can work both in offline and online setting
- Materials: Devices for each participant (laptop, PC, Tablet)
- Duration: Approximately 40 minutes

## A. Implementation of the activity:

### Step 1 - Preparation:

- Prepare a brief presentation about hardware and what are its main components, using our information listed above (can be just a speech, can be a power point or just some info).
- Prepare the links for the participants (they are written below, just to check them before the activity).
- If online, you can remain in the big group, if in offline setting, you can create small groups of 2-3 participants each.

### Step 2 - Introduction:

(10 minutes)

- Welcome participants and explain the purpose of the activity: to understand the hardware and the software skills and that the activity will consist in two parts.
- Introducing the first part which is the basics of hardware.

## Step 3 - Testing the devices:

(20 minutes)

Most of the devices we use can be tested online, and for each of them there is a link where the participants can easily do it. Ask each of them to open the following links and see how they can use it. After each of them, have a moment of reflection time in order to see how much they needed to know that and the utility of it.

- For testing the internet connection:

 <https://fast.com>

- For testing the camera:

 <https://webcamtests.com>

- For testing the microphone:

 <https://www.onlinemictest.com>

- For testing the keyboard speed (here you can actually give the participants an assignment, where they will write for 1-2 minutes and then will see their performance, knowing how to work on it):

 <https://www.typingtest.com/>

- For testing the CPU performance, which is the main processor of a PC/Laptop (processor performance test allowing you to check online your processor at heavy load):

 <https://cpux.net/cpu-stress-test-online>

- After each question, hear about the answers of each participant and/or team and provide explanations, answers, and additional insights related to their answers.

### **Step 4 - Discussion:**

(10 minutes)

- Facilitate a group discussion after the test.
- Ask participants about their key takeaways and any questions or concepts they found particularly interesting or challenging.

### **A. Recommendations for implementation**

- Encourage participants to actively discuss each question, fostering collaborative learning.
- Use a mix of multiple-choice, true/false, and open-ended questions to engage various learning styles.
- Create a friendly and supportive atmosphere to make participants feel comfortable asking questions.



## A. Reflective questions

- How was using the devices?
- Did you enjoy knowing more about the basic tools in hardware settings? Please explain your answer.
- How useful is it for you to see that every piece of technology that builds up a device is connected?
- Are you planning on exploring more of this world?

## B. Learning objectives: using our software skills and knowledge.

- Participants will start to recognize the importance of hardware in their digital lives.
- Participants will see the links between some of the components of the hardware devices and gadgets.
- Participants will remember the knowledge about the hardware basics and tools and will improve their performance in virtual space.

## B. Settings/materials/duration

- Settings: Can work both in offline and online setting
- Materials: Devices for each participant (laptop, PC, Tablet)
- Duration: Approximately 45 minutes.

## B. Implementation of the activity:

### Step 1 - Preparation:

- Briefly present about software and its purpose.
- If online, you can remain in the big group, if in offline setting, you can create small groups of 2-3 participants each.
- Create a Kahoot! With questions that are learning points about Hardware and Software.
- Make a mentimeter for the use of evaluation.
- Kahoot! is a Norwegian online game-based learning platform. It has learning games, also known as “kahoots”, which are user-generated multiple-choice quizzes that can be accessed via a web browser or the Kahoot! App.

- Mentimeter: The app focuses on online collaboration for the education sector allowing students or public members to answer questions anonymously. The app enables users to share knowledge and real-time feedback on mobile with presentations, polls or brainstorming sessions in classes, meetings, gatherings, conferences and other group activities.

## **Step 2 - Introduction:**

(10 minutes)

- Welcome participants and explain the purpose of the activity: to understand the hardware and the software skills and that the activity will consist in two parts.
- Introducing the link between hardware and software and the fact that they go together, and then getting participants familiar with the second part which is the software.

## **Step 3 – Interactive use of the software skills:**

(30 minutes)

- Welcome participants and explain the purpose of the activity: to understand their own software skills.
- First, explain to the participants how to use the Kahoot! App. Ask them to Scan the QR code (it might be new for them the scanning part) and start playing the activity. Questions that could help are

related to the use of Email, the role of the hardware parts from the previous activity, the importance of apps and their use compared to the websites from a browser).

- Then, ask the participants to install an app related to news from each country/ or at European level if they want (such as Euronews, Politico etc, a full list you can find here

 [Top 20 European News Websites To Follow in 2023 \(feedspot.com\)](https://feedspot.com/top20/europe/news-websites-to-follow-in-2023/)

- Ask the participants to complete the Menti from their device as an evaluation part.

## **Step 4 - Discussion:**

(10 minutes)

- Facilitate a group discussion after the test. (using questions such as: How was this activity? Did you see any differences between hardware and software? If yes, what are some of them? What are the main characteristics of the hardware part? And for the software one? Which component is more important when talking about the hardware part? Why is it important to know the software part? )
- Ask participants about their key takeaways and any questions or concepts they found particularly interesting or challenging.



## B. Recommendations for implementation

- Encourage participants to actively discuss each question, fostering collaborative learning.
- Use a mix of multiple-choice, true/false, and open-ended questions to engage various learning styles.
- Create a friendly and supportive atmosphere to make participants feel comfortable asking questions.







## Evaluation of the Module

Objective: Explore the impact of social media on daily life by making decisions on digital engagement and reflecting on their consequences.

### Instructions:

#### 1. Setup:

- » Design a virtual environment representing different aspects of daily life, such as work, personal relationships, and leisure.
- » Each player receives a character with a daily routine and various social media platforms.

## 2. Gameplay:

- » Players navigate through a typical day, encountering scenarios where they must decide whether to engage with social media or not.
- » Scenarios may include posting updates during work hours, checking social media during family time, or responding to controversial posts.

## 3. Challenges:

- » Players earn points for positive interactions, meaningful connections, and responsible use of social media.
- » Introduce challenges like balancing online and offline activities, dealing with digital distractions, and managing the impact of social media on mental well-being.

## 4. Reflection:

- » After the game, facilitate a discussion on how social media choices influenced their character's daily life.
- » Encourage players to reflect on the role of social media in shaping their relationships, productivity, and overall well-being.

## Key Takeaways:

- Players gain insights into the choices they make regarding social media in different aspects of life.
- The game prompts discussions on the balance between online and offline activities and the potential effects of social media on personal and professional life.

This game aims to highlight the nuanced role social media plays in shaping daily routines and encourages players to consider the impact of their digital choices on their overall well-being.

## Learning objectives:

- Better understanding of the role of social media
- Understanding the need of young people to interact and be online.

## Settings/materials/duration

- Short presentation on social media or video

 **Example:** <https://www.youtube.com/watch?v=ItoTvKPhgFk>

- Sharing and discussion – 30-45 minutes

## Recommendations for implementation

- Give space to each participant to share
- Support participants to come out with proposals and conclusions
- Write some main outcomes from the shared above

## Reflective questions

- Are social media just “bad” or “good”?
- How can we limit the time spent on SM?
- What are the main benefits of elderly people from being on SM?



## Evaluation of the Module

### Quiz for Self-Assessment

To be answered by learners at the end of the module. A printable version you can find in the annex..

### Questionnaire

To be answered by learners at the end of the module to measure the overall impact of the training program. Please see annex.

### Validation of the Module

At the end of the Module, learners will have acquired

#### Knowledge:

The learners are able to

- Recognize the using of a device from several points of view
- See the main parts of a device and its components and the internal software of it
- Support other peers in their understanding of a digital device, from both hardware and software point of view.



## Skills:

The learners are able to

- Using devices (phone, tablet, monitor, mouse, keyboard etc) in a more comprehensive way
- See the differences between hardware and software and their importance to learning.
- Create a more sustainable usage of the devices.

## Competencies:

The learners are able to

- Develop more ways to connect with other people and to the news around them.
- Better use the digital devices in their own interest, becoming more self-sufficient in this term.
- Create a sustainable method for using the digital skills that they will obtain.

## ANNEX For Module 4

### Media Literacy and Technology

#### Entry Level Test - Media Literacy Hardware & Software

**Question 1:** What is a hardware part?

- a. Software used to run computer systems
- b. Physical components of a computer system
- c. Digital tools for everyday use
- d. Websites accessed through a browser

**Question 2:** Which of the following elements of hardware are important to know?

- a. Email and important apps
- b. Testing hardware performance and skills
- c. Understanding software and hardware concepts
- d. Learning by doing with hardware skills

**Question 3:** How can hardware performance and skills be tested?

- a. By using digital tools
- b. By accessing websites from a browser
- c. By learning by doing
- d. None of the above

**Question 4:** Which of the following main topics are covered in the module on software?

- a. Testing hardware performance and skills
- b. Understanding software and hardware concepts
- c. Email and important apps d) Learning by doing with hardware skills

**Correct answers:**

**Question 1:** b) Physical components of a computer system.

**Question 2:** c) Understanding software and hardware concepts.

**Question 3:** d) None of the above.

**Question 4:** c) Email and important apps.



## Quiz for Self-Assessment

To be answered by learners at the end of the module:

- 1.** Please rate your understanding of the following concepts on a scale of **1 (Low)** to **5 (High)**:

Hardware:

1	2	3	4	5
---	---	---	---	---

CPU:

1	2	3	4	5
---	---	---	---	---

Internet connection speed:

1	2	3	4	5
---	---	---	---	---

Software activity:

1	2	3	4	5
---	---	---	---	---

Digital world:

1	2	3	4	5
---	---	---	---	---

Apps:

1	2	3	4	5
---	---	---	---	---

Mentimeter, Kahoot!:

1	2	3	4	5
---	---	---	---	---

## 2. True or False:

- » I can use the digital devices without knowing about their functionality.
  - a. True
  - b. False
- » Software and hardware skills are only for people working in IT sector.
  - a. True
  - b. False
- » Digital processes are very complex and have no meaning for a beginner.
  - a. True
  - b. False

## 3. Please provide a brief reflection for 3-4 phrases on one thing you've learned about digital hardware and software during this activity:

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## Questionnaire

To be answered by learners at the end of the module to measure the overall impact of the training program.

**Question 1:** Did the training content about media literacy Hardware and Software meet your expectations?

- a. Yes
- b. No

**Question 2:** Was the mix of presentations/explanations and activities suitable?

- a. Yes
- b. No

**Question 3:** Did you learn anything new?

- a. Yes
- b. No

If yes, please provide more details about your acquainted knowledge skills/competencies. I am able to...

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If no, please provide details about missing knowledge/skills/competencies:

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**Question 3:** Was the course practical or easy to apply?

- a. Yes
- b. No

**Question 4:** Have you observed any positive impacts of this course on your media usage related to digital skills? Could you specify them?

**Question 5:** Based on this training, would you be interested in having trained in other skills?

- a. Yes
- b. No

**Question 6:** Do you have any suggestions to improve this course? If yes/no, please provide more details, why?

### **Exit Level Test- Media Literacy Hardware & Software**

**Question 1:** Understanding Software & Hardware - True or False?

Hardware refers to the physical components of a computer system that you can touch and feel.

**Question 2:** Elements of Hardware - Which of the following are important elements of hardware?

- a. Keyboard and mouse
- b. Operating system
- c. Random Access Memory (RAM)
- d. Internet browser

**Question 3:** Testing Hardware Performance - True or False?

Testing hardware performance is important to ensure that digital tools work efficiently and effectively.

- a. True
- b. False

**Question 4:** Learning by Doing with Hardware Skills Why is it beneficial to learn hardware skills for everyday use?

- a. To troubleshoot and fix hardware issues
- b. To enhance overall computer performance
- c. To effectively use peripheral devices like printers and scanners
- d. All of the above

**Correct answers:**

**Question 1:** a) True

**Question 2:** a) Keyboard and mouse,  
c) Random Access Memory (RAM)

**Question 3:** a) True

**Question 4:** d) All of the above



# information matters

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