

## MODULE 2: Functional literacy in the framework of ICTs

### Introduction

As a society, we are encouraged to believe that more people than ever are technologically literate and connected through an array of smart devices on a daily basis. Particularly during the pandemic, it appeared as if everyone was online and learning new digital abilities. With the pandemic raging through 2020 and 2021, many businesses, public services and entertainment companies raced to put their products, services, advice, and procedures online. Increasingly, people's social lives, leisure time, medical or health services and communication with loved ones have moved online. But, without the appropriate aptitudes in digital technology, how can people access these services to overcome the challenges of entering a whole new digital world?

In this module we will offer the basic concepts about the important ICTs for everyday life and how to improve the knowledge about different platforms, apps, and digital resources that facilitate basic procedures.

### Defining ICT and Functional literacy

#### 2.1 What is ICT?

**Information and communication technologies (ICT)** is defined as a diverse set of technological tools and resources used to transmit, store, create, share or exchange information. These technological tools and resources include **computers, the Internet (websites, blogs and emails)**, live broadcasting technologies (radio, television and webcasting), recorded broadcasting technologies (**podcasting, audio and video players, and storage devices**) and **telephony (fixed or mobile, satellite, visio/video-conferencing, etc.)**. ICT has become an integral part of everyday life for many people. It increases its importance in people's lives and it is expected that this trend will continue, to the extent that ICT literacy will become a functional requirement for people's work, social, and personal lives.

#### Components of ICT

The term information and communications technology (ICT) is generally accepted to mean all technologies that, combined, allow people and organizations to interact in the digital world.



Source: TechTarget



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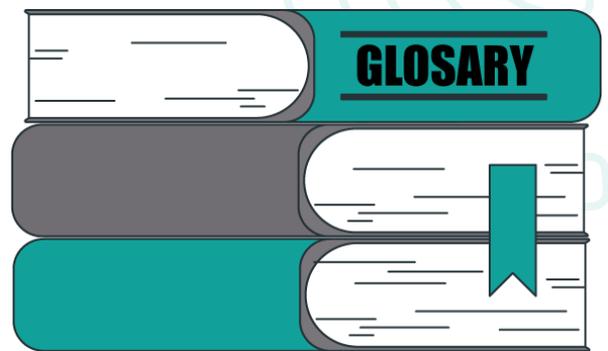
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## 2.2 What is Functional Literacy?

Functional Literacy refers to the capacity of a person to engage in all those activities in which literacy is required for effective function of his or her group and community and also for enabling him or her to continue to use reading, writing and calculation for his or her own and the community's development. Functional literacy is about developing and enhancing the skills our whole society needs to function. If we don't have individuals with mathematical knowledge, reading and writing skills, or analytical abilities, we cannot have functioning communities, businesses, or governments. One of the functional skills that make society perform for efficiently is computer skills- the ability to use computers. This skill set can range from using applications like email, word processors and spreadsheets to advanced knowledge about programming and computer science. We also have to contend with digital literacy, information literacy and data literacy.

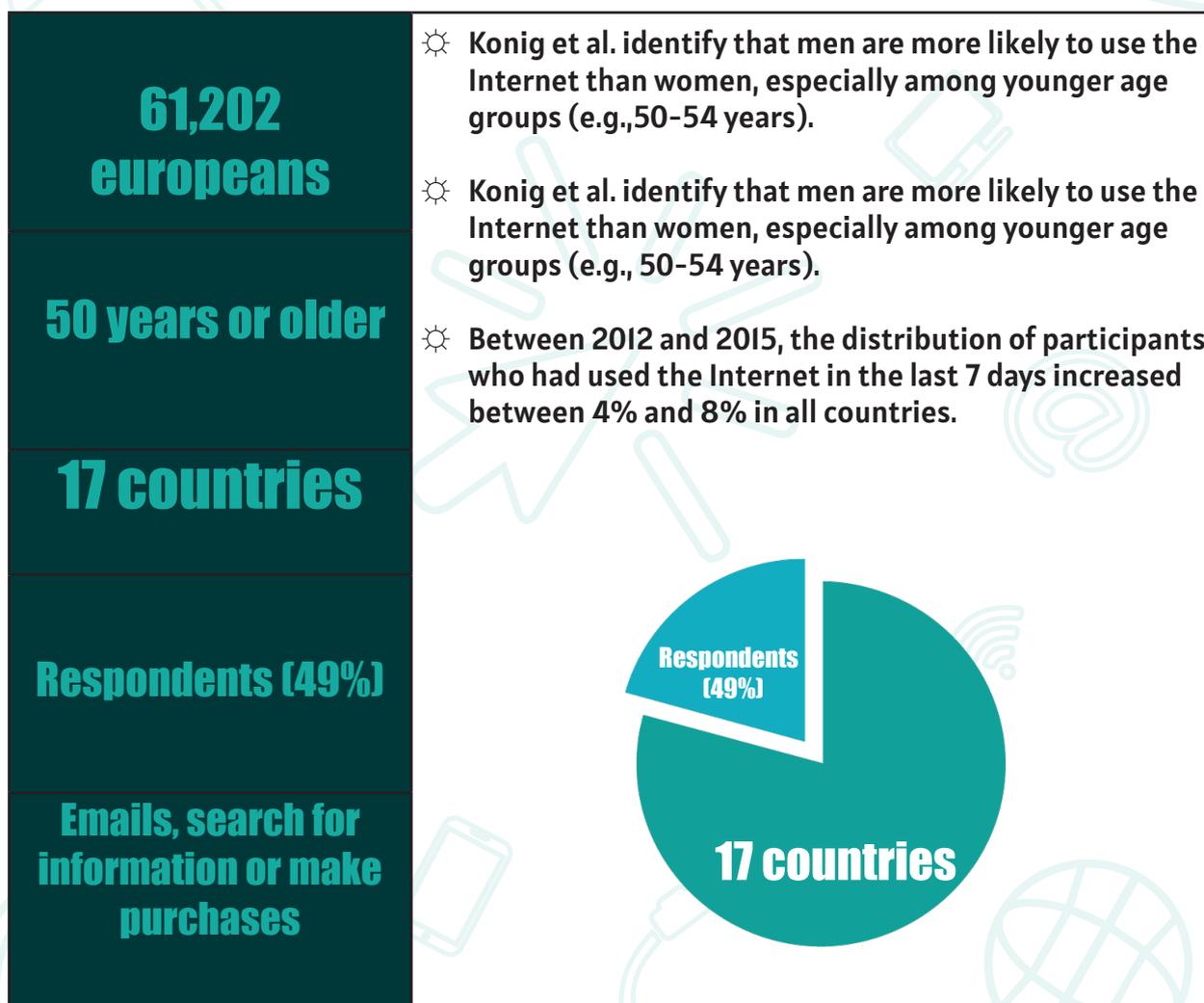
## 2.3 Glossary about ICT

- ⌋ **Address bar:** The address bar is at the top of your web browser (such as Internet Explorer or Google Chrome). It's where the address of a webpage (or URL) appears. You can type a web address straight into the address bar.
- ⌋ **Apps (applications):** A type of computer program that you can download for your computer, tablet, or mobile phone. There are hundreds of different apps available that do lots of different things, from playing games and puzzles, to allowing you to access your bank account. You download apps from Google Play Store if you have an Android phone or tablet, or the App Store if you have an Apple device.
- ⌋ **Browser:** The computer software or app you use to access the internet. Examples include Internet Explorer, Google Chrome and Safari.
- ⌋ **Cookies:** Most websites pop-up with a message asking you to 'accept cookies'. A cookie is a small piece of data that is stored on your computer, smartphone or tablet when you visit a website. They allow the website to track information about your activity on the website, such as how many times you have visited and how long you spent on the website. You don't have to accept cookies, but it might mean that you can't access some websites.
- ⌋ **Data allowance:** It uses mobile data, measured in megabytes (MB) and gigabytes (GB), to use the internet on your phone or tablet if you aren't connected to Wi-Fi. Most phone and tablet contracts have monthly allowances for data usage. Once you use up your allowance, you might get charged for additional usage, or you might not be able to use mobile data until your allowance renews the next month.
- ⌋ **Link (or Hyperlink):** Text, an image, or a button that you can click or tap on in order to access a website. The link may be blue in colour and underlined and may include wording such as 'click here for more information' or 'find out more'.
- ⌋ **Log in:** If you have set up an online account for anything including email, banking, shopping or social media, you will need to use a username (often your email address) and password to access the account. This is known as logging in.
- ⌋ **Phishing:** An attempt at identity theft in which criminals direct users to a fake website to trick them into disclosing private information, such as usernames or passwords.
- ⌋ **Scroll :** To move text or other information on a computer screen up, down, or sideways, with new information appearing as the old disappears.



- ☞ **Search engine:** Search engines enable you to find websites and ask questions on the internet. Popular search engines include Google and Bing. You can type in some keywords to find out information or access websites. Someone might tell you to 'google' something, which means to look up information online using a search engine.
- ☞ **Social media:** Social media, or social networks, are online communities where you can connect with friends, family and other people who share your interests. Examples include Facebook, Twitter and Instagram.
- ☞ **Spam:** A commercial email that you did not request, also known as junk mail.
- ☞ **Tab:** Tabs are at the very top of your internet browser. You can click on the '+' symbol to open a new tab, where you can visit a different website without losing access to the webpage, you're on. Some apps might also have tabs at or near the top, which you can click or tap on to switch between different parts of the app.
- ☞ **Viruses:** Programmes that spread from one computer to another by email or through malicious websites. They can slow your computer down, display unwanted pop-up messages and even delete files.
- ☞ **Wi-Fi:** Wi-Fi is the wireless technology used to connect computers, tablets, smartphones and other devices to the internet.

## 2.4 Data and Information



A SHARE-based study explores the drivers of Internet use among Europeans aged 50+. The access to and use of new technologies is becoming ever more important for all generations. **But how often do older people use the Internet and its resources?** Researchers from Switzerland and Germany take on this question and explore the factors driving Internet use among Europeans aged 50+. König et al. base their analysis on data from the sixth wave of the Survey on Health, Ageing and Retirement in Europe (SHARE). The study population includes 61,202 Europeans aged 50 or older from 17 countries.

Nearly half of the respondents (49%) use the Internet – for e-mailing, searching information or making purchases. König et al. state that this proportion is considerably varying between countries, with respondents from Northern and Western countries (e.g. Denmark, Sweden, Switzerland) being far more often online than older people from the Southern and Eastern parts of the continent (e.g. Croatia, Greece, Poland). The immediate circumstances one lives in also showed to be influencing the likelihood of Internet use. Living in an urban area and having a partner who is a frequent internet user stimulate the use of the web. Still, individual circumstances also contribute to the frequency of Internet use.

König et al. identify that men are more likely to use the Internet than women, especially among younger age groups (e.g. 50-54 years). Furthermore, good health and well-being, higher education and socioeconomic status, better familiarity with new technology, especially through work, serve as factors increasing the personal Internet use. On the contrary, retiring from work appears to be decreasing one's frequency of going online. Overall, the authors observed an increase in the Internet use among older Europeans over time.

Between 2012 and 2015, the distribution of participants who had used the Internet within the past 7 days increased by 4–8% in all countries.

## 2.5 Technology and Society

The idea of **technological determinism** appeared in the latter half of the 19th century and has been a prevailing popular sentiment ever since, moreover numerous works of scientific importance also bear its marks. Its existence has significantly contributed to the endurance of some technology related misunderstanding. Technological determinism argues that technology is the principal driving force of society determining its mode of operation, development, course of history, structure and values in a decisive manner.

Converse effects are taken into account to a limited extent, fully disregarded or disclaimed. Technological development is thought to be propelled by the logic of science alone. Both technology and society are co-related, co-dependent, co-influence with each other. Technology lays an impact on society, including the potential for society to progress or decline, in both good and bad manner.

**Our society is shaped by technology**, which has both beneficial and harmful consequences. Human societies and technology have grown inextricably linked since technical systems like mobile phones, computers, TV, etc. are produced by humans and reflect the very basis of a population's needs and lifestyle.



## 2.6 Activity

Think of a question you would like an answer to. Use a search engine (e.g. Google) to find an answer.



## 3. The importance of ICT in everyday life

### 3.1 Networked devices in everyday life

IT systems are embedded in many everyday experiences and we have become so used to this that we hardly even realize we are using them. Whether we are aware of it or not, we are surrounded by networks through which information constantly flows. Our notions of time and place are changing. The world seems to have become a 'global village' where distance is no longer a barrier to commercial or social contact.

The terms information society and network society have been used to analyze the social and economic changes that are taking place along with technological advances. One of the discussions about IT concerns whether changes in society are driven by technological development or whether technologies are influenced and shaped by the society that produces them. This is a complex debate but an interesting idea to think about. On the one hand, if technologies are shaped by social conditions, they will inevitably reflect the values and norms of the particular society in which they are created.

On the other hand, if we believe that technology determines the way society develops, then we can feel very helpless and fatalistic. You could also think about this at the level personal. En su vida cotidiana, probablemente habrá experimentado



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it happens to you. However, technologies are also shaped by the people who design and create them.

Societies and individuals can also control or influence how technologies are used. It seems like every month new mobile phones come out with extra features and the incessant advertising tries to persuade us that we need to have the latest version. However, as a consumer, you have ultimate control over whether or not you choose to purchase one. Some network devices that we use in our daily lives are computers, mobile phones, the Internet, tablets, Wi-Fi, ATMs, smart watches, and many more.



### 3.1 Digital Resources for Basic Procedures

To truly appreciate the importance of IT systems in our daily life we need to take a look at the major areas in our daily life that it can facilitate.

#### 3.2.1 Accessing Information

Not only are there daily news updates available online, but access to information by anyone has become a simple process. One of the main and necessary uses of the Internet is a way of finding information, obtaining and processing information on the Internet. There are millions of web pages that provide free information and a search engine is one way to find the website you are looking for.

**How to find information online? What are the ways to search for things online? What are “Keywords”? How not to get lost with the information available online?**

These are some of the main questions of someone searching for information online.

**What are the ways to search for things online?**

The search engine: The gateway to the world of the internet, whether on your computer at home, or from your smartphone. To find what you are looking for in the large amount of content on the internet. There are search engines. Search engines are comparable to a type of information that searches the internet for you. The search engine provides you with the answers to your search in the form of Internet page references, which are so-called “links”.

**How not to miss out on the information available online?**

If search engines like Google do a lot for us, and already provide surprisingly good results with just a few search terms, you need to be familiar with the basic search options for your search to be successful. Keyword research is a search engine optimization technique that is used to identify the search terms that people type to locate information on a certain topic. This can be done through a variety of different methods.

Ask yourself what The key terms are important for your search and combine them with each other. Here are some tips on how to use keywords effectively.

1. **Concise keywords - Long phrases are not only unnecessary, but also do not offer additional guarantees at the level of results.**
2. **Be specific about what you're looking for - type more than one word, eg Holidays in Athens.**
3. **Do not ask questions, if you want to know the weather tomorrow, enter: Weather Tuesday**
4. **Use quotes if you are looking for a specific quote. Example: "I can't help but fall in love"**
5. **Use lowercase letters.**

## How to safely browse the Internet without losing the experience of doing so - YouTube

### Online security

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

The subject of internet security is difficult to handle even for experts. Browse the web with a web browser and find interesting information. Sending and receiving emails. These are the basic possibilities offered by the Internet. Hackers and Virus writers can infect your computer if you set a low security level in your email application and web browser.



They can do this by sending a malicious email or by enticing you to visit a malicious site.

Fraudulent information is often based on links in emails, websites, or chat that appear to come from a service you trust, such as your bank, credit card provider, or social network. The goal of social engineering is often to silently install spyware and trick it into revealing your passwords or other financial or personal information. Never respond to unsolicited prompts to update your account information!

From: **GlobalPay <VT@globalpay.com>**   
 Subject: Restore your account  
 Date: February 7, 2014 3:47:02 AM MST  
 To: David

Hide

1 Attachment, 7 KB

Save ▾

Quick Look

Dear customer,

We regret to inform you that your account has been restricted.

To continue using our services please download the file attached to this e-mail and update your login information.

© GlobalPaymentsInc



[update2816.html \(7 KB\)](#)

### 3.2.2 Financial services and transactions

Every time you use a **credit or debit card**, the store uses a terminal connected to other computers through a network. Your identification details are automatically transferred from your card to your bank or credit card company for verification, and your balance is adjusted accordingly. It also applies



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if you are buying online or by phone (when reserving a movie ticket for example). ATMs allow you to check your bank balance or withdraw cash from anywhere in the world. The machines are networked to a central computer, which keeps records of your account in a filing system known as a database.

Many banks also offer Internet banking services, minimizing the need for customers to visit a branch. Saving time and the possibility of making purchases at any time of the day or night are also very important. Here it is also important to take into account some rules:

- ⌋ **Check the credibility of online stores (via store reviews, discussion forums.)**
- ⌋ **Keep your device secure and up to date.**
- ⌋ **Use an antivirus**
- ⌋ **Check that your internet connection access is secure.**
- ⌋ **Do not enter private information from an untrusted store**
- ⌋ **Please read the terms and conditions before ordering.**

### 3.2.3. Socialization and communication

Sharing information quickly and easily around the world **crosses language and geographic barriers and allows people to continuously communicate with each other.** Share images and videos online or just a thought for the day. From sending messages to someone who lives on the other side of the map, the use of IT has made it possible to connect through internet rooms and open source applications. Online communication through the internet is very popular. Previously, sending email was one of the fastest communications. Now we can communicate in real time. The only lag is due to keyboard control practice or the speed at which we speak.



We can use tools like **Skype, Whatsapp, Messenger and others.** The biggest risk we can take on the internet is the **loss of privacy.** Keep in mind that what we post online can usually be undone and deleted. Information and passwords can be stolen

General contact online creates continuity in relationships, allowing frequent interaction that was not available in the days when letters or long-distance phone calls provided the only connection to distant friends and loved ones. Online communications provide **intellectual stimulation**, keeping seniors in touch not only with friends and family but with the world at large. These technologies can be a lifesaver for those with health issues that keep them confined at home.

#### Passwords

**Passwords** are keys that are used to access different types of accounts, whether on a computer, corporate network, services, companies and other online portals. If this data is stolen by criminals or other malicious users, they can access accounts and cause significant damage. These include, for example, gaining control of the computer, transferring money from a bank account, making online payments on behalf of the account

owner, identity theft and misuse for various types of crimes.

People don't like passwords. They must remember them by trying to use simple passwords, constantly repeating passwords. When they use them wrongly they are surprised and do not understand what happened. We must be able to use the computer keyboard which is a strong password. **The password must contain capital letters, numbers and special characters**, and when the user cannot use the keyboard, it is difficult to use these characters. **Do not share passwords with anyone, do not send passwords by email, messages or other communications!**

### 3.2.4. Entertainment

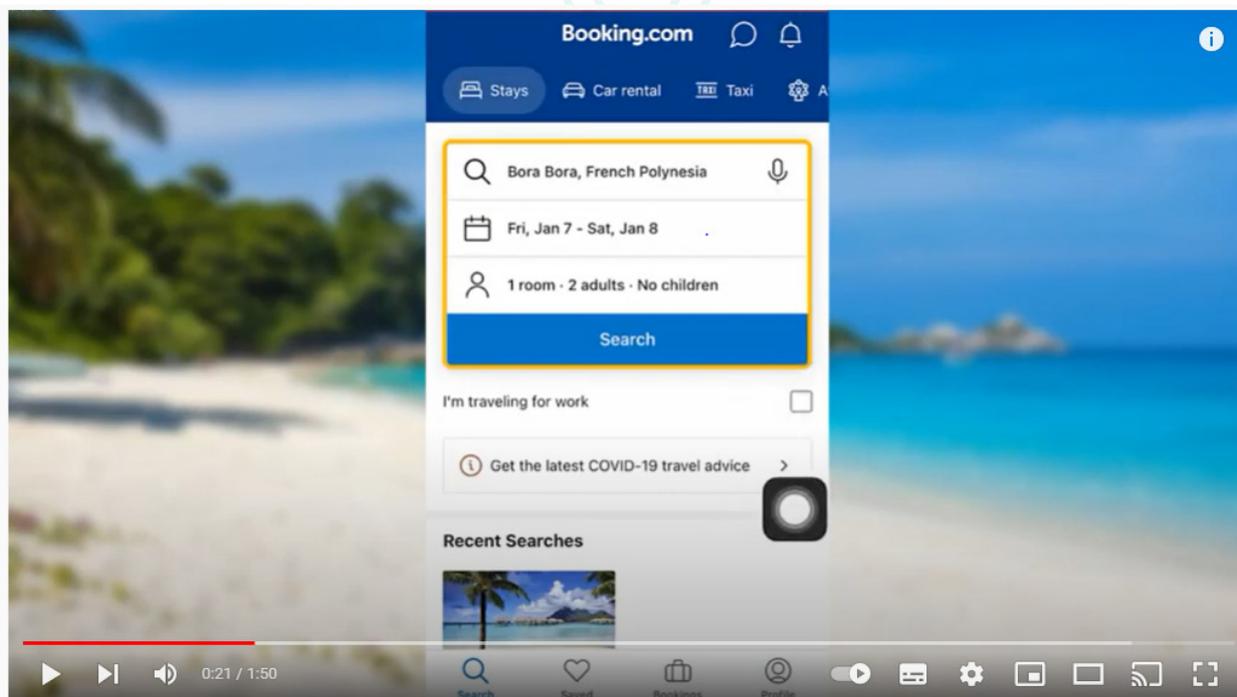
**Digital media** has transformed the entertainment industry in recent years. It has changed the way studios spread marketing content, artists engage with fans, and consumers engage with their content. Media entities have a digital presence and on social networks. Digital media have restructured working models for the music, television, film, and publishing industries.

As a result, **TV shows and movies** have gradually adopted the **on-demand mode** in all electronic devices. On the other hand, newspapers, magazines, books, and other publications are now available on interfaces like smartphones and tablets. People now have access to all kinds of entertainment resources like streaming music, movies, TV shows, podcasts, youtube, online app download. In addition to these resources, we have access to services that provide us with a more accessible and faster participation in experiences such as online reservations for travel, concerts, cinema, wellness, beauty and much more.



Here is an example on how to book a hotel through Booking.com:

[https://www.youtube.com/watch?v=rEXXHxwaWOk&ab\\_channel=HowToGeek](https://www.youtube.com/watch?v=rEXXHxwaWOk&ab_channel=HowToGeek)



How to Book a Hotel Room on Booking.com

1,511 views · 26 Dec 2021

18 DISLIKE SHARE DOWNLOAD SAVE ...



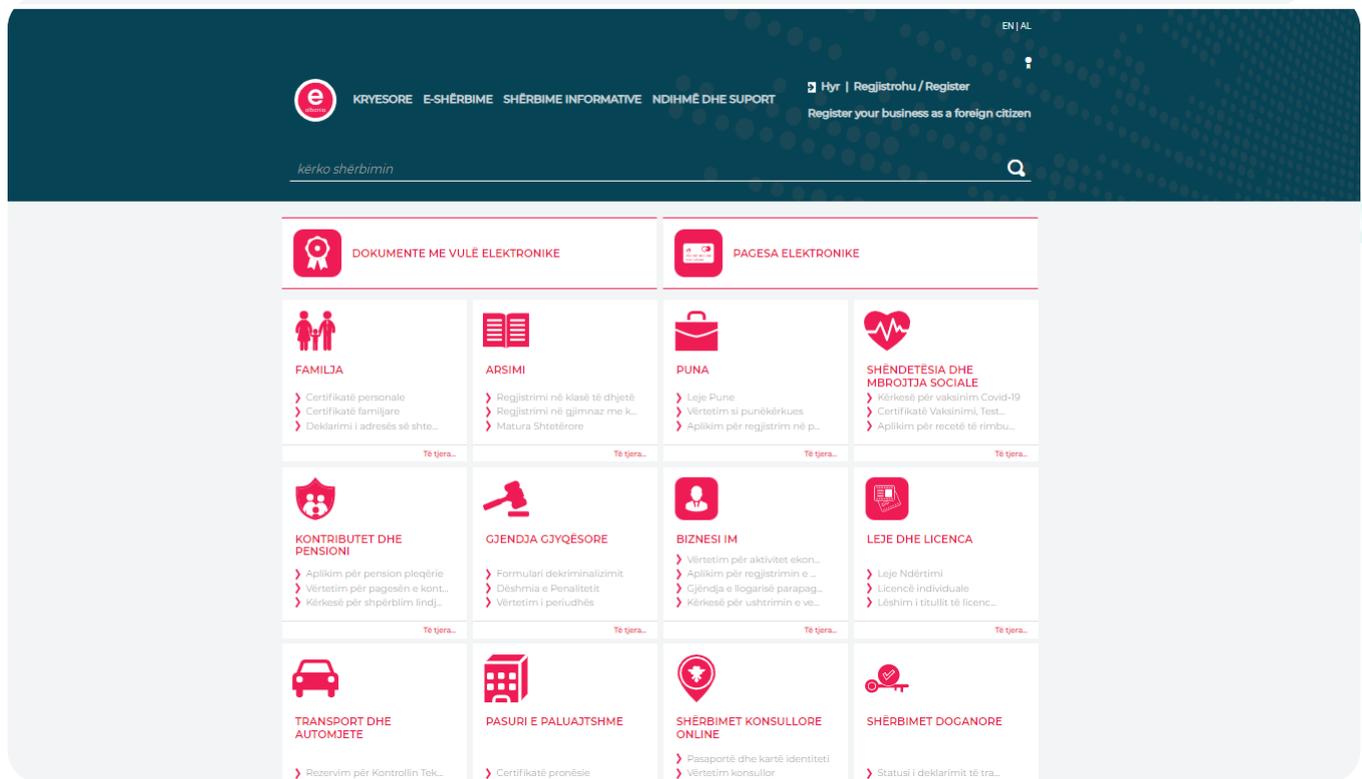
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### 3.2.5. Public services

**Effective digital or eGovernment public services** can provide a wide variety of benefits. These include more efficiency and savings for governments and companies, greater transparency and greater participation of citizens in political life. ICTs are already widely used by government agencies, but e-government involves more than just the tools. It involves rethinking organizations and processes, and changing behavior so that public services are delivered more efficiently to people. Well implemented, government enables citizens, businesses, and organizations to conduct their interactions with government more easily, quickly, and affordably. The government can achieve the use of information and communication technologies in all facets of the operations of a government organization, such as paying taxes, bills, fines, applying for certificates, licenses and social protection programs, registering on websites of public services and have a common goal. Database and more.

Here is an example of how E-Albania works primarily as a catalog and repository for services and information from all government branches. A "single window" also allows citizens to pay taxes and other fees.



### 3.2.6. Health & Wellness

Since the 1990s, access to health information has increased due to the development of information and communication technologies (ICTs), in the 2000s electronic health (e-health) defined the use of ICTs emerging markets, especially the internet, to improve or enable medical health care.

Today, eHealth has expanded to include content services, health care providers, health care consumers, and other systems. Therefore, the need for e-health has increased through the use of ICTs and the role of e-health in requesting information is increasing more and more, acquiring a certain relevance.

Older adults can use the Internet to help manage their health, make health-related decisions by searching for health information, communicating with medical professionals, seeking health services, and participating in health programs. Additionally, instead of meeting with healthcare professionals for limited information,



**Information and data literacy:** Articulate information needs, to locate and retrieve data, information and digital content. To judge the relevance of the source and its content. Store, manage and organize data, as well as information and digital content.

**Communication and collaboration:** Interact, communicate and collaborate through digital technologies while being aware of cultural and generational diversity. Participate in society through public and private digital services of participatory citizenship. Manage your own digital presence, identity and reputation.

**Digital Content Creation:** To create and edit digital content to enhance and integrate information and content into an existing body of knowledge while understanding how copyright and licenses apply. Know how to give understandable instructions for a computer system.

**Security:** To protect devices, content, personal data and privacy in digital environments. Protect physical and psychological health, and learn about digital technologies for social well-being and social inclusion. Be aware of the environmental impact of digital technologies and their use.

**Problem solving:** Identify needs and problems, solve conceptual problems and problematic situations in digital environments. Use tools to innovate processes and products. To keep up with digital evolution.

## 4.2 How can I improve my knowledge of digital tools for everyday life?

Ensuring the digital inclusion of older adults means overcoming five key barriers such as: access, installation, knowledge, design and trust. Providing low-cost, high-speed internet and devices, along with installation and support, is critical to addressing connectivity.

Consumers need digital literacy programs and up-to-date information on relevant technology.

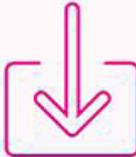
				
<b>Design and User Experience</b>	<b>Awareness and Interest</b>	<b>Cost and Acquisition</b>	<b>Installation and Adoption</b>	<b>Trust and Privacy</b>
Is it easy to use?	Why should I be interested in this technology?	Can I afford it?	How do I integrate it into my life?	Are my personal data secure?
Was it designed for people like me?	What new products exist?	How do I buy it?	Who can help me if I run into problems?	Are there any known privacy or identify theft issues?
Did they conduct UX testing with people like me?	Should I care?	How do I select the right product?	How difficult is it to set up?	What personal data does it collect?

Figure 2. Barriers to technology for older adults

The technology itself must be designed in an inclusive way for all, taking into account the unique needs of older adults. Finally, people must have confidence that their privacy and personal data will be secure and used ethically. No entity can solve these challenges alone, so collaboration and a public-private approach are essential to achieve digital equity.

### 4.3 Activity

Take this quiz and find out where you stand on the digital competition wheel:

<https://digital-competence.eu/dc/>

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