



DigComp

The Digital Competence Framework for Citizens

-

FACTSHEET





TABLE OF CONTENTS

DHeLiDA: what is DigComp for?	1
What is DigComp?	2
DigComp competences	4
How to read this factsheet?	5
(1) Information and data literacy	6
(2) Communication and collaboration	9
(3) Digital content creation	13
(4) Safety	15
(5) Problem Solving	18





DHeLiDA: what is DigComp for?

Digital Health Literacy is the ability to search, find, understand and evaluate health informations from computerized sources and to apply the knowledge gained to address or solve a health problem.

In enabling citizens to better manage their health and illness, improve prevention, enable more accurate diagnosis and treatment, and facilitate communication with health professionals, the European project DheLiDA (Digital Health Literacy for Disadvantaged Adults) aims to reduce the digital health literacy gap that can lead to the social exclusion of potentially vulnerable target groups (especially elderly, migrants and their families) and to stimulate the development of new skills to ensure better social and health care, first for the individual and then for the community.



The first phase of the project includes the creation of a platform to implement collective awareness in the field of digital health and the “DigCompHealth Foundation”, a new health literacy framework focused on the basic digital competences defined in the Digital Competence Framework for Citizens (DigComp).





What is DigComp?

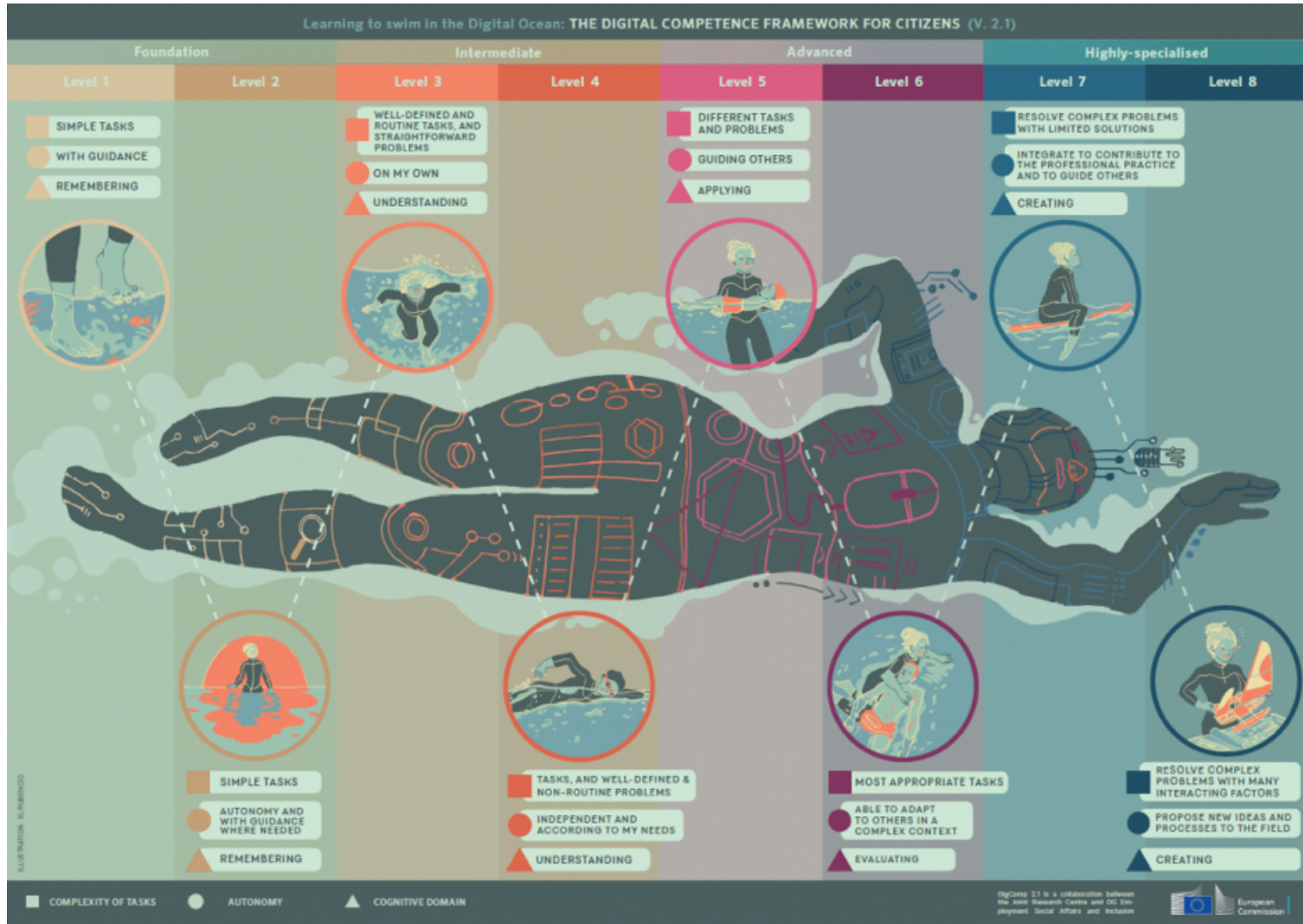
The Digital Competence Framework for Citizens, also known as DigComp, provides a common language to identify and describe the key areas of digital competence. It is an EU-wide tool to improve citizens' digital competence, help policy-makers formulate policies that support digital competence building, and plan education and training initiatives to improve the digital competence of specific target groups.

DigComp was first published in 2013 and has become a reference for many digital competence initiatives at both European and Member State levels.

This document is based on DigComp 2.1, published in 2017 and third version of the original framework.

DigComp 2.1 identifies five key areas of competences and four broad proficiency levels (foundation, intermediate, advanced, highly-specialised).







DigComp competences

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





How to read this factsheet?

Five sections:

1. Competence domain
2. Competence area
3. Competence title
4. Competence description
5. Knowledge, skills and attitudes examples for each competence

Competence domain	A.	
Competence area	1.	
Competence title	1.1.	Competence description
		➤ ...
	Knowledge examples	Examples
	Skills examples	- ...
Attitudes examples		





(1) INFORMATION AND DATA LITERACY

Competence domain	A.	GENERAL DIGITAL COMPETENCE
Competence area	1.	INFORMATION AND DATA LITERACY
Competence title	1.1.	<i>Browsing, searching and filtering data, information and digital content</i>
		<ul style="list-style-type: none"> ➤ to articulate information needs ➤ to search for data, information and content in digital environments ➤ to access them and to navigate between them
	Knowledge examples	To be able to: <ul style="list-style-type: none"> - understand how information is generated, managed and made available - understand which search engines or databases best answer to own information needs - understand how information can be found in different devices/media
	Skills examples	To be able to: <ul style="list-style-type: none"> - adjust searches according to results - use filters - use search words that limit the number of hits
	Attitudes examples	To be able to: <ul style="list-style-type: none"> - demonstrate proactive attitude towards looking for information - be motivated to seek information for different aspects of life
1.2.	<i>Evaluating data, information and digital content</i>	
	<ul style="list-style-type: none"> ➤ to analyse, compare and critically evaluate the credibility and reliability of sources of data, information and digital content ➤ to analyse, interpret and critically evaluate the data, information and digital content 	





	Knowledge examples	To be able to: <ul style="list-style-type: none"> - understand that information sources need to be cross-checked - analyse retrieved information - evaluate media content
	Skills examples	To be able to: <ul style="list-style-type: none"> - judge the validity of content found on the internet or the media - interpret information - transform information into knowledge - assess the usefulness, timeliness, accuracy and integrity of information - compare, contrast and integrate information from different sources
	Attitudes examples	To be able to: <ul style="list-style-type: none"> - be critical about information found <p>be aware that search engine mechanisms and algorithms are not necessarily neutral in displaying information</p>
	1.3.	<i>Managing data, information and digital content</i>
		➤ to organise, store and retrieve data, information and content in digital environments
Knowledge examples	To be able to: <ul style="list-style-type: none"> - understand the purpose of information storing and back-up - describe different storage options - realise benefits and shortcomings of online and local storage 	
Skills examples	To be able to: <ul style="list-style-type: none"> - structure and classify information and content - organise information and content - select appropriate ways of storing information according to context 	





	Attitudes examples	<ul style="list-style-type: none"> - download/upload information and content - use information management services, software, applications - retrieve and access previously stored information and content <p>To be able to:</p> <ul style="list-style-type: none"> - acknowledge the importance of an intuitive and pragmatic storage system/method - realise the consequences of storing information and content as private/public
--	---------------------------	---



(2) COMMUNICATION AND COLLABORATION

Competence domain	A.	GENERAL DIGITAL COMPETENCE
Competence area	2.	COMMUNICATION AND COLLABORATION
Competence title	2.1.	<i>Interacting through digital technologies</i>
		<ul style="list-style-type: none"> ➤ to interact through a variety of digital technologies ➤ to understand appropriate digital communication means for a given context
	Knowledge examples	<p>To be able to:</p> <ul style="list-style-type: none"> - describe different digital communication means (e.g. email, chat and videoconference, mobile messaging) - define the benefits and limitations of different means of digital communication - select appropriate means of digital communication according to context
	Skills examples	<p>To be able to:</p> <ul style="list-style-type: none"> - send email, SMS, chat message - find and contact people online - edit information in order to communicate it through several means - tailor communication according to audience - filter and organise incoming communication (e.g. organise emails in folders)
	Attitudes examples	<p>To be able to:</p> <ul style="list-style-type: none"> - be confident and comfortable in communicating and expressing him/herself through digital means - observe the risks linked with online communication with unknown people
2.2.	<i>Sharing information and content through digital technologies</i>	
	<ul style="list-style-type: none"> ➤ to share data, information and digital content with others through appropriate digital technologies 	



	Knowledge examples	To be able to: <ul style="list-style-type: none"> - decide which content/knowledge/resources can be shared - judge the value of resources shared - distinguish types of audiences to share resources with
	Skills examples	To be able to: <ul style="list-style-type: none"> - share content found online (e.g. share video in social networking site) - use online environments to promote results of own activity - check property rights of content shared
	Attitudes examples	To be able to: <ul style="list-style-type: none"> - be proactive in sharing content/knowledge/resources - observe benefits, risks and limits of sharing - observe copyright issues
	2.3.	<i>Engaging in citizenship through digital technologies</i> <ul style="list-style-type: none"> ➤ to participate in society through the use of public and private digital services ➤ to seek opportunities for self-empowerment and for participatory citizenship through appropriate digital technologies
	Knowledge examples	To be able to: <ul style="list-style-type: none"> - understand the participatory and engagement possibilities brought by digital technology - understand that technology can be used for engagement in civic and democratic actions - give examples of different forms of public/civic participation through digital means
Skills examples	To be able to: <ul style="list-style-type: none"> - find online networks, communities and social media corresponding to own interests and needs - access relevant networks and communities actively 	





	Attitudes examples	To be able to: <ul style="list-style-type: none"> - value the benefits of online participation and networking - maintain watchful attitude towards different social media functionalities
	2.4.	<i>Collaborating through digital technologies</i>
		➤ to use digital tools and technologies for collaborative processes
	Knowledge examples	To be able to: <ul style="list-style-type: none"> - understand how collaborative processes facilitate content creation - distinguish when content creation can benefit from collaborative processes and when not - understand different roles needed in diverse forms of online collaboration
	Skills examples	To be able to: <ul style="list-style-type: none"> - use collaborative features of software packages and webbased collaborative services (e.g. Word document track changes, comments, tags, wikis) - give and receive feedback - work at a distance with others
	Attitudes examples	To be able to: <ul style="list-style-type: none"> - demonstrate willingness to collaborate with others function as part of a team - seek new forms of collaboration not necessarily based on previous face-to-face engagement
	2.5.	<i>Netiquette</i>
	➤ to be aware of behavioural norms and know-how while using digital technologies and interacting in digital environments	
	➤ to adapt communication strategies to the specific audience	
	➤ to be aware of cultural and generational diversity in digital environments	
Knowledge examples	To be able to: <ul style="list-style-type: none"> - describe examples of correct and wrong conduct in digital interactions - understand consequences of own behaviour in digital environments 	





	Skills examples	<ul style="list-style-type: none"> - understand ethical issues in digital media such as improper websites and cyberbullying <p>To be able to:</p> <ul style="list-style-type: none"> - protect him/herself and others from online threats - ban/report abuse and threats - develop strategies for handling cyberbullying and inappropriate conduct
	Attitudes examples	<p>To be able to:</p> <ul style="list-style-type: none"> - consider ethical principles of use and publication of information - demonstrate flexibility and sensitiveness for different communication cultures
	2.6.	<p><i>Managing digital identity</i></p> <ul style="list-style-type: none"> ➤ to create and manage one or multiple digital identities ➤ to be able to protect one's reputation ➤ to deal with the data that one produces through several digital tools, environments and services
	Knowledge examples	<p>To be able to:</p> <ul style="list-style-type: none"> - define the benefits of having one or more digital identities - understand the interlinks between the online and offline world - understand that several actors can positively or negatively contribute to constructing his/her digital identity
	Skills examples	<p>To be able to:</p> <ul style="list-style-type: none"> - construct profiles that benefit his/her needs - protect him/herself and others from online threats to their e-reputation
	Attitudes examples	<p>To be able to:</p> <ul style="list-style-type: none"> - realise the benefits and risks related to online identity exposure - be willing to disclose certain type of information about self - consider multiple ways of expressing his/her own personality through digital means





(3) DIGITAL CONTENT CREATION

Competence domain	A.	GENERAL DIGITAL COMPETENCE
Competence area	3.	DIGITAL CONTENT CREATION
Competence title	3.1.	<i>Developing digital content</i>
		<ul style="list-style-type: none"> ➤ to create content in different formats (e.g. data, text, multimedia) ➤ to edit and improve existing content ➤ to express oneself through digital means
	Knowledge examples	To be able to: <ul style="list-style-type: none"> - understand how different content is created - distinguish which software/application fits best the content he/she wants to create
	Skills examples	To be able to: <ul style="list-style-type: none"> - use basic packages to create content in different forms (text, spreadsheets, audio, numeric, images) - edit content created by him/herself or by others - create knowledge representations using digital media
	Attitudes examples	To be able to: <ul style="list-style-type: none"> - be innovative towards commonly used forms of content creation - explore new ways and formats
	3.2.	<i>Integrating and re-elaborating digital content</i>
<ul style="list-style-type: none"> ➤ to modify, refine and integrate new information and content into an existing body of knowledge and resources to create new, original and relevant content and knowledge 		
Knowledge examples	To be able to: <ul style="list-style-type: none"> - understand that resources can be built from diverse and nonsequential information sources 	





	Skills examples	<ul style="list-style-type: none"> - distinguish different databases and resources that can be remixed and re-used <p>To be able to:</p> <ul style="list-style-type: none"> - use edit functions to modify content in basic ways - remix different existing content into something new - exploit digital repositories (e.g. Open Educational Resources) - use appropriate licenses for authoring and sharing content
	Attitudes examples	<p>To be able to:</p> <ul style="list-style-type: none"> - be critical in the selection of content and resources to be reelaborated - assess and appreciate the work of others
	3.3.	<i>Copyright and licences</i>
		➤ to understand how copyright and licences apply to digital information and content
	Knowledge examples	<p>To be able to:</p> <ul style="list-style-type: none"> - consider license-related regulation principles of use and publication for information - understand copyright and license rules - distinguish different ways of licensing intellectual property - understand differences between copyright, creative commons, copyleft and public domain licenses
Skills examples	<p>To be able to:</p> <ul style="list-style-type: none"> - license own original production - find information on copyright and license rules 	
Attitudes examples	<p>To be able to:</p> <ul style="list-style-type: none"> - behave independently and assume responsibility for own behaviour and choices 	



(4) SAFETY

Competence domain	A.	GENERAL DIGITAL COMPETENCE
Competence area	4.	SAFETY
Competence title	4.1.	<i>Protecting devices</i>
		<ul style="list-style-type: none"> ➤ to protect devices and data ➤ to understand risks and threats in digital environments ➤ to know about safety and security measures ➤ to have due regard to reliability and privacy
	Knowledge examples	<p>To be able to:</p> <ul style="list-style-type: none"> - become aware of risks associated with using digital devices - distinguish between basic principles of handling digital devices - give examples of measures to protect devices from damage and wear-out
	Skills examples	<p>To be able to:</p> <ul style="list-style-type: none"> - initiate, set-up and control safe operation of various digital devices (mobile/smart phones, tablets, laptops, table computers, digital cameras, audio devices, specialised health and care aids) - use safety accessories to protect devices from physical damage and wear-out - examine malfunctioning devices and decide where professional service is needed
	Attitudes examples	<p>To be able to:</p> <ul style="list-style-type: none"> - read and observe user manuals and operation instructions for devices - use devices sustainably and economically
	4.2.	<i>Protecting personal data and privacy</i>
		<ul style="list-style-type: none"> ➤ to protect personal data and privacy in digital environments



		<ul style="list-style-type: none"> ➤ to understand how to share personally identifiable information while protecting self and others from dangers (e.g. fraud) ➤ to understand that digital services use a “Privacy policy” to declare how personal data is used
	Knowledge examples	<p>To be able to:</p> <ul style="list-style-type: none"> - understand the terms of use of online services (e.g. collection of personal data by providers) - give examples fo up-to-date strategies to protect own systems and data - understand the risks of identity theft and other credentials’ theft
	Skills examples	<p>To be able to:</p> <ul style="list-style-type: none"> - install and use various anti-virus systems and applications - take steps to mitigate risks of fraud by using strong passwords - modify or delete information about self or others he/she is responsible for
	Attitudes examples	<p>To be able to:</p> <ul style="list-style-type: none"> - follow the principles of online privacy and safety - act critically when disclosing information about him/herself of others online
	4.3.	<p><i>Protecting health and well-being</i></p> <ul style="list-style-type: none"> ➤ to avoid health-risks related with the use of digital technologies in terms of threats to physical and psychological well-being ➤ to be able to protect self and others from possible dangers in digital environments (e.g. cyber bullying) ➤ to be aware of digital technologies for social well-being and inclusion
	Knowledge examples	<p>To be able to:</p> <ul style="list-style-type: none"> - understand various effects of using technology on users’ health - distinguish real risks from common myths as regards health threats caused by technology - be aware of basic principles for the protection of physical and mental health related to digital technology use





	Skills examples	To be able to: <ul style="list-style-type: none"> - protect own physical health when using ICTs by taking appropriate preventive measures (e.g. correct physical posture by computer, correct light conditions and optimal distance from the device) - protect own mental health when using ICTs by taking appropriate preventive measures (e.g. avoiding harmful content, balancing activities)
	Attitudes examples	To be able to: <ul style="list-style-type: none"> - demonstrate balanced and healthy attitude towards using technology
	4.4.	<i>Protecting the environment</i>
		➤ to be aware of the environmental impact of digital technologies and their use
	Knowledge examples	To be able to: <ul style="list-style-type: none"> - determine appropriate and safe digital means - compare efficiency and cost-effectiveness of various ICTs - understand the environmental impact of ICTs and other electronic devices
	Skills examples	To be able to: <ul style="list-style-type: none"> - use digital equipment cost-efficiently and time-efficiently - make good purchasing decisions (e.g. about buying devices or internet services) - recycle ICTs and their parts where possible
Attitudes examples	To be able to: <ul style="list-style-type: none"> - recognise environmental and economical issues related to the use of digital technology 	





(5) PROBLEM SOLVING

Competence domain	A.	GENERAL DIGITAL COMPETENCE
Competence area	5.	PROBLEM SOLVING
Competence title	5.1.	<i>Solving technical problems</i>
		<ul style="list-style-type: none"> ➤ to identify technical problems when operating devices and using digital environments, and to solve them (from trouble-shooting to solving more complex problems)
	Knowledge examples	<p>To be able to:</p> <ul style="list-style-type: none"> - know how a computer or digital device is built - understand where to find help for problem-solving and trouble shooting
	Skills examples	<p>To be able to:</p> <ul style="list-style-type: none"> - use a widely diverse and well-balanced mix of digital and non-digital technologies for different problems - solve a technical problem or to decide what to do when technology does not function
	Attitudes examples	<p>To be able to:</p> <ul style="list-style-type: none"> - take a proactive approach to solving problems - seek advice when a problem arises - think of alternatives when problems cannot be solved and things have to be done
	5.2.	<i>Identifying needs and technological responses</i>
<ul style="list-style-type: none"> ➤ to assess needs and to identify, evaluate, select and use digital tools and possible technological responses to solve them ➤ to adjust and customise digital environments to personal needs (e.g. accessibility) 		
Knowledge examples	<p>To be able to:</p> <ul style="list-style-type: none"> - understand the potential and limitations of digital devices and resources 	





	Skills examples	<ul style="list-style-type: none"> - know the range of things that can be done using technologies - be aware of the most relevant or popular digital technologies used by others (e.g. peers, reputed experts) - know how available technologies might support the achievement of personal goals <p>To be able to:</p> <ul style="list-style-type: none"> - make informed decisions (with human or technological assistance where appropriate) about whether and how to use technologies to pursue personally relevant goal - choose the most appropriate technologies according to the problem
	Attitudes examples	<p>To be able to:</p> <ul style="list-style-type: none"> - be aware of the value of traditional tools in conjunction with networked media - critically evaluate possible solutions using digital tool
	5.3.	<i>Creatively using digital technologies</i>
		<ul style="list-style-type: none"> ➤ to use digital tools and technologies to create knowledge and to innovate processes and products ➤ to engage individually and collectively in cognitive processing to understand and resolve conceptual problems and problem situations in digital environments
	Knowledge examples	<p>To be able to:</p> <ul style="list-style-type: none"> - know how to solve a theoretical problem, of individual or collective interest, through or with the support of digital tools - know how to find the relevant knowledge for the solution of theoretical problems - understand how meaning is produced through multimedia and technologies
	Skills examples	<p>To be able to:</p> <ul style="list-style-type: none"> - know how to explore the web, the market and the online network when searching for solutions - know how to solve problems individually and collectively (peer-problem solving) - to build meaningful knowledge through interaction with digitally available resources - use a variety of media to express oneself creatively (text, images, audio, and movie)





	Attitudes examples	To be able to: <ul style="list-style-type: none"> - explore alternative solutions that are offered by technologies - revise own values and attitudes according to the situation - see the potential of technologies and media for self-expression and knowledge creation - assess the added value of new media for cognitive and creative processes
	5.4.	<i>Identifying digital competence gaps</i>
		<ul style="list-style-type: none"> ➤ to understand where one's own digital competence needs to be improved or updated ➤ to be able to support others with their digital competence development ➤ to seek opportunities for self-development ➤ to keep up-to-date with the digital evolution
	Knowledge examples	To be able to: <ul style="list-style-type: none"> - understand the wider context of digital tools in a 'digital age' characterised by globalisation and networks - understands where ICT comes from, who develops it and for what purposes
	Skills examples	To be able to: <ul style="list-style-type: none"> - stay informed using a combination of active search and personalised, automated delivery of information - know how to self-regulate own learning about digital technologies. - diagnose deficiencies of digital competence required for reaching personal goals - learn and integrate the new technologies that emerge
	Attitudes examples	To be able to: <ul style="list-style-type: none"> - reject inappropriate technologies - reflect own digital skills and development (the ability to be aware of oneself as a digitally literate person and to reflect on one's own digital literacy development) - hold a positive attitude to learn about emerging digital technologies - broaden/update digital competences according to personal/professional needs

