

# CRISS Digital Competence Framework

## 1. Digital Citizenship

Manage digital identities, health and well-being, personal and data protection, and engage in citizenship.

### **1.1. Creating and managing digital identity with privacy, health and well-being.**

To create, manage and protect digital identities. To take care of physical and psychological health and well-being.

**1.1.1** Be able to manage one's own digital identity, in terms of presence and visibility in the network, for different purposes (e.g. traceability, social network profiles and legal conditions, e-portfolio, CV, etc.).

**1.1.2** Be able to protect one's own digital identity (e.g. verify privacy policy, traceability, use safety websites, passwords and Wi-Fi connections, update software, etc.).

**1.1.3** Adopt healthy habits in relation to ergonomics and to prevent other physical risks (e.g. posture, hours, radiation, decibels, etc.).

**1.1.4** Be aware of psychological and emotional risks generated by the inappropriate use of digital technologies and Internet (e.g. cyberbullying, sexting, addiction, violent content, etc.) and how to avoid them.

### **1.2. Protecting data and digital systems and be ethical and responsible when using digital technology.**

To protect personal data and digital systems. To be aware of the variety of ways to publish digital content, and to be ethical and responsible when using digital technologies.

**1.2.1** Know how to protect personal data that can be compromised in digital environments (e.g. access rights, right of cancellation, etc.).

**1.2.2** Protect devices and digital systems (e.g. correct switch off, electrical surge, etc.), and against external threats (e.g. using antivirus, passwords, etc.).

**1.2.3** Know image and author rights and different forms of digital content diffusion (e.g. copyright, copyleft, creative commons, licences, etc.), using them ethically and responsibly (e.g. citations, etc.).

### **1.3. Engaging in citizenship using digital technologies.**

To engage in improving social well-being and environmental sustainability and to enhance personal empowerment using digital technologies.

**1.3.1** Be aware of how to use and consume digital technologies in a sustainable way for the environment (e.g. ways to save energy, know the impact of technology on the environment, recycle, etc.).

**1.3.2** Enhance citizen autonomy using digital technologies (e.g. reserve museum tickets, train tickets, renew or reserve library books, medical appointment, co-responsible processes, etc.).

**1.3.3** Participate actively through digital technologies in social improvement and environment sustainability initiatives (e.g. contribute to virtual communities, support social platforms and organizations, etc.).

## **2. Digital communication and collaboration**

Interact in digital environments, share content, and collaborate in projects through digital technologies.

### **2.1. Communicating through digital technologies.**

To interact properly through appropriate digital technologies and to share data, information and digital content in a variety of forms, ways and contexts.

**2.1.1** To adapt communication to the specific audience and to be aware of cultural and generational diversity in digital environments, also being aware of netiquette.

**2.1.2** Communicate and publish through different and adequate digital tools and platforms (e.g. e-mail, blogs, web page, wikis, etc.).

**2.1.3** Manage different communication systems to interact and share information with others (e.g. forums, store and share files in the cloud, send attachments, upload photos, etc.).

### **2.2. Collaborating through digital technologies.**

To collaborate using digital technologies to develop projects and create resources and knowledge.

**2.2.1** Plan, organize and manage collaborative work for operating agreements, distribution processes and tasks of the group, using suitable collaborative digital tools (e.g. time-management and scheduling on-line calendar).

**2.2.2** Participate actively in the group tasks through collaborative virtual environments (e.g. different instant messaging on-line chat, video conferencing, collaborative networks, etc.).

**2.2.3** Act ethically, contributing to the cohesion of the team with balanced and efficient communication, respecting the views of others and managing the group problems or conflicts when working in digital environments.

## 3. Search and manage digital information

Search and select through digital technologies, manage data, information and digital content.

### **3.1. Planning, searching and critically selecting data, information and digital content.**

To plan, search and critically select data, in order to find the right information and digital content.

**3.1.1** Plan an information search based on specific needs and conditions (e.g. time, goals, constraints, etc.).

**3.1.2** Implement a coherent search strategy using appropriate keywords, different information search tools (e.g. search engines, directories, etc.) and search filters (e.g. Boolean operators, searcher configurations, etc.).

**3.1.3** Use appropriate criteria to select the found information (e.g. comprehension, quality, adequacy, etc.) and contrast critically different sources and verify their reliability.

### **3.2. Managing data, information and digital content.**

To organize, store and retrieve data, information and content in digital environments.

**3.2.1** Adopt a system for management, storage and retrieval of information (e.g. folders, connection between devices, use the cloud, safe copies, etc.).

**3.2.2** Organize autonomously the Personal Learning Environment (people, devices, tools, resources).

## 4. Digital content creation

Produce, edit and create digital content and develop creativity.

### 4.1. Developing digital content.

To produce and to edit digital content in different formats using the appropriate digital technologies.

**4.1.1** Generate and modify digital content composed by text and tables, taking into account the design, structure, wording, etc.

**4.1.2** Treat data involving numbers, formulas, calculus and graphs.

**4.1.3** Produce, edit, and improve digital content composed by images, sound and videos, taking into account the whole elaboration process (e.g. conception, design, etc.).

**4.1.4** Elaborate presentations taking into account the context and conditions (e.g. audience, time, academic requirements, etc.).

**4.1.5.** Elaborate digital content integrating different formats, according to the aim of the project.

### 4.2. Developing creativity using digital technologies.

To create new content and knowledge and to express oneself through digital technologies.

**4.2.1** Generate new information, be creative and express self when elaborating digital content in different formats.

**4.2.2** Create representations of knowledge using digital formats (e.g. maps, diagrams, schemes, conceptual maps, etc.).

## 5. Digital problem solving

Identify needs, solve technical problems, configure environments and devices and program.

### 5.1. Applying digital solutions to identified needs.

To understand where one's own digital competence needs to be improved or updated. To identify needs, select the appropriate digital solution and apply it.

**5.1.1** Be aware of the existence of a variety of digital solutions, evaluate critically the adequacy of each of them in relation to a specific task and be able to identify and use the appropriate one in relation to the purposes (e.g. tools, devices, applications, software, etc.).

**5.1.2** To understand where one's own digital competence needs to be improved or updated. To seek opportunities for self-development and to keep up-to-date with the digital evolution.

## **5.2. Solving technical problems.**

To detect and solve technical problems.

**5.2.1.** Be able to detect technical problems that can arise while operating devices and using digital environments (e.g. hardware, operating system, software, applications, etc.).

**5.2.2** Be able to find appropriate solutions to solve technical problems (in software or hardware) or asking for help when problems cannot be solved.

## **5.3. Programming and configuring digital tools, applications and devices.**

To plan and develop a sequence of understandable instructions for digital systems, to solve a given problem or perform a specific task.

**5.3.1** Customize digital environments depending on personal needs (e.g. accessibility, settings, additional components, etc.).

**5.3.2** To know and use the suitable elements of the computational thinking through the design and implementation of programming projects.