

**DIGITAL  
SOFT SKILLS  
FRAMEWORK  
FOR  
EDUCATORS  
AND  
STUDENTS**



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# CONTEXT AND PURPOSE OF THE FRAMEWORK

The Digital Soft Skills Framework for educators and students has been developed as part of the Digital Soft Skills @Ulyseus (D2S) project, a joint initiative of the Ulyseus European Universities Alliance with co-funding from the Erasmus+ Programme of the European Union. The overall purpose of the project is to enhance the digital soft skills of both educators and students in the context of the digital transition. To this end, the project will develop a series of outputs, including the D2S framework, a D2S self-assessment tool, and a series of courses for both educators and students to allow them to develop their digital soft skills.

This document describes the working version of the D2S educator and student framework developed in consultation with the project teams. The framework is an important foundation for subsequent project outcomes in that it provides the basis for both the self-assessment tool and the courses.

## DIGITAL SOFT SKILLS DEFINITION

A skill is a specific learned ability that one needs to perform a given job well; a soft skill is a non-technical skill that is less rooted in specific vocations (Social Hays, 2019).

There are various definitions of digital soft skills, depending on context, profession, target group, and other factors. For the purpose of this project, we choose to leave a degree of flexibility in conceptualising digital soft skills, distinguishing between two key dimensions:

- Technological (or “hard”) dimension: relates to using technology and includes traditional ICT skills.
- “Soft” dimension: relates to social, emotional, and interpersonal effects of using technology (either independently or together with other people).

It is the second dimension which is the focus and scope of this project (recognising, however, that the distinction between the two dimensions is not always clear-cut). The D2S framework relies on four key aspects that encompass core digital soft skills, both for teachers and for students. Four categories of skills are identified: Developing Me, Engaging with Others, Acting Now and Creating the Future.

In each category we limit our focus to three soft skills that also reflect the degree of fluency/proficiency (the depth of skills acquisition). For example, in the 'Developing Me' category, digital literacy is identified as a beginner level skill, which can be followed by the development of digital identity and digital well-being. This, however, does not represent a rigid and one-way learning path.

We believe that the advanced digital soft skills address the needs of both higher education students and teachers as users and actors of digital education, as well as more broadly as digital citizens.

Figure 1 and 2 (pages 3 & 6) present the D2S framework for educators and for students. The circle surrounding the four categories highlights broader competences, which are considered as necessary to succeed in any modern education setting, and in which the digital soft skills are embedded, alongside knowledge and attitudes. These are Flexibility in Learning, Reflective Practice, and Intercultural Empathy.

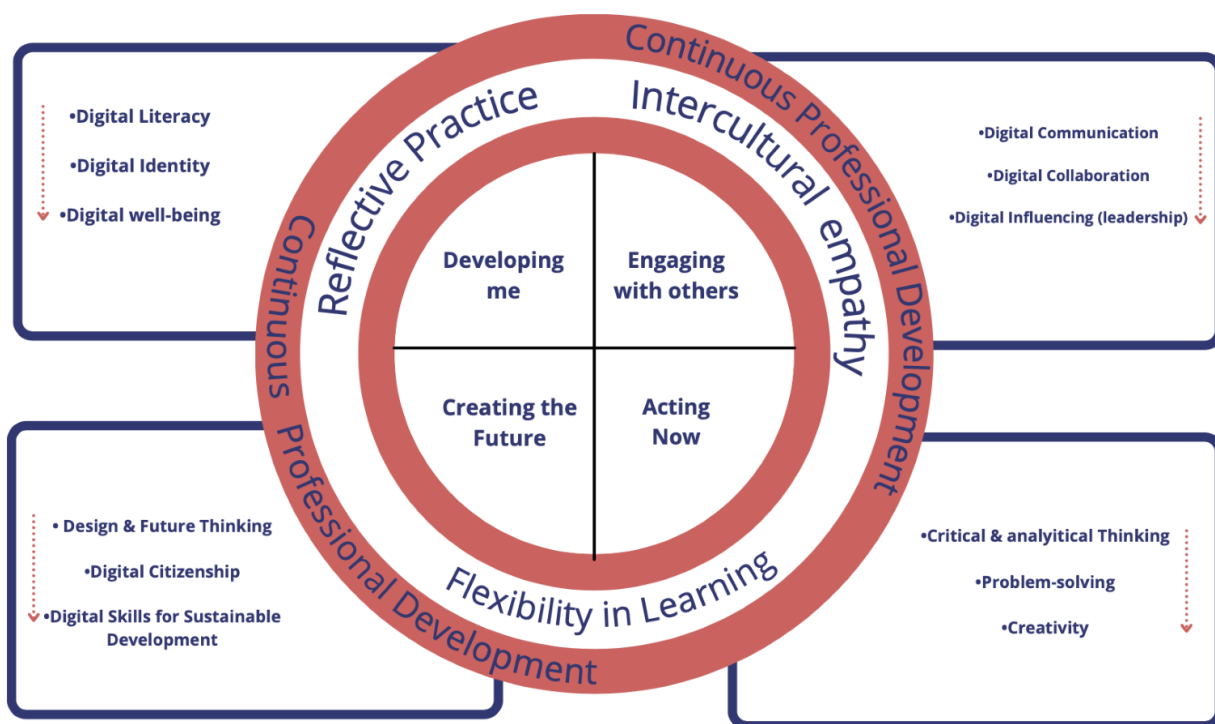
An extra layer – Personal Development – combines both digital education related skills, but also more general digital citizens skills and professional skills.

The Framework for Teachers adds one further layer of overarching critical teaching practice, that of Continuous Professional Development. The outer circle enclosing the inner and passing by all competences, core and broad, represents how all competences and skills in the framework can be considered as part of a teacher's professional development and growth.

Since the project focuses on soft skills, the pedagogical dimension will be addressed more specifically case by case in each of the four categories. Also, the digital soft skills and the three broader competences closely relate to pedagogical competences, such as the ones provided in the European Framework for the Digital Competency of Educators<sup>1</sup> or the EdDiCo project<sup>2</sup>.

# DIGITAL SOFT SKILLS FOR EDUCATORS

Figure 1. D2S framework for teachers



## EDUCATORS FRAMEWORK DESCRIPTION

### DEVELOPING ME

- Digital literacy
  - Manipulating and reproducing information (including knowledge on data rights, licence, open resources, etc.)
  - Effectively and ethically using and managing digital information and data, including research data management
- Digital identity
  - Being aware of one’s digital footprint
  - Creating a successful digital identity / profile for different learning contexts
  - Managing a positive digital reputation

- **Digital well-being**
  - Understanding and taking measures to ensure the different aspects of digital wellbeing
  - Charting one's personal technology use
  - Looking after one's health in a digital environment
  - Digital safety - Dealing with risks and challenges in digital contexts (e.g. addiction, bullying, etc.)

## ENGAGING WITH OTHERS

- **Digital communication**
  - Finding, evaluating, selecting and using appropriate communication tools
  - Being able to adapt one's message to different digital media, audiences, and purposes
  - Ensuring accessibility and inclusion of all learners and responding to their digital expectations and abilities
- **Digital collaboration**
  - Finding, evaluating, selecting and using appropriate collaboration tools
  - Managing own and team priorities (staff teams, classroom, etc.)
  - Moderating and facilitating online activities
- **Digital influencing (leadership)**
  - Engaging and building online interaction
  - Empowering learners through fostering their active and creative online engagement

## ACTING NOW

- **Critical thinking and analytical thinking in the digital space**
  - Using agile working methods to adapt to changes and effectively embed them in the learning process
  - Incorporate teaching and learning activities that boost critical and analytical thinking in the digital context

- **Problem-solving**
  - Identifying needs and creatively using digital technologies to solve a problem
  - Fostering learners' digital problem solving and to open learning to real-world complex problems
- **Creativity**
  - Thinking about a task or a problem in a new or different way and using the imagination to generate new ideas
  - Designing and implementing activities that increase learners' creative expression

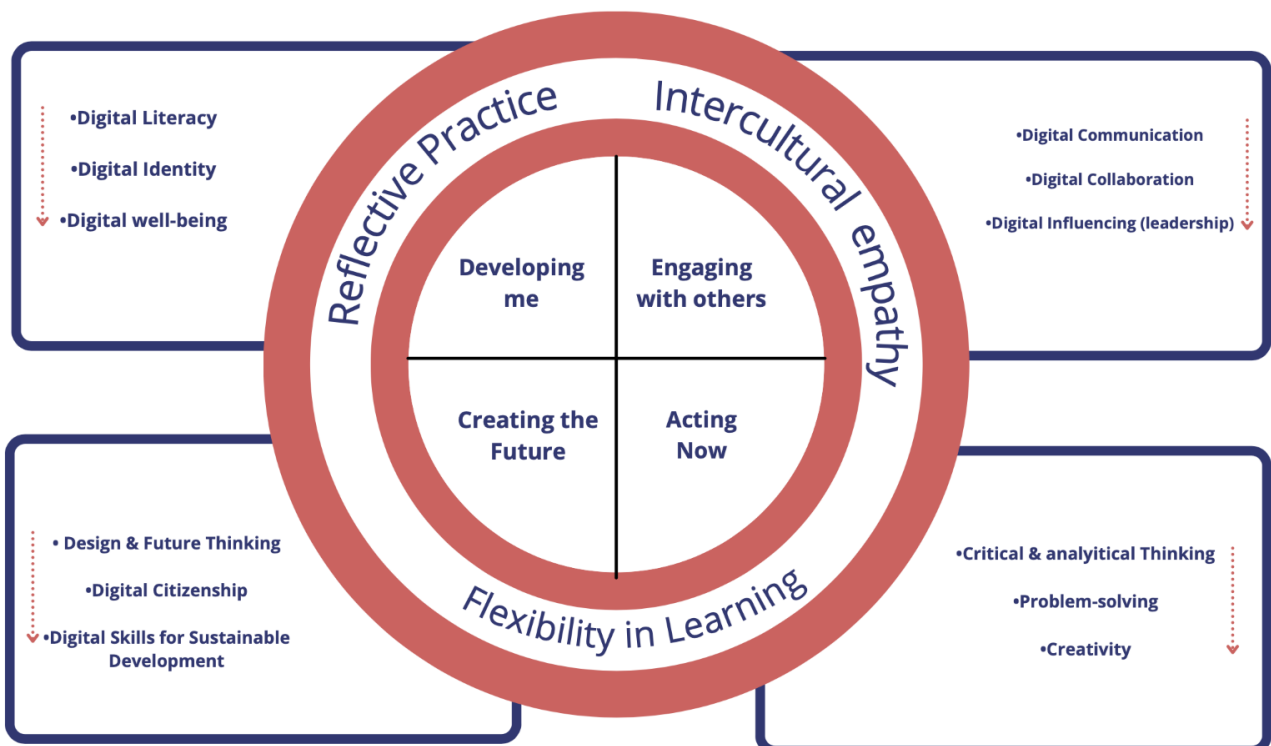
## CREATING THE FUTURE

- **Digital Citizenship**
  - Engaging and facilitating an online community or learning activities that address issues of public concern
  - Using and promoting the use of suitable digital media to promote important societal causes
- **Digital Skills for Sustainable Development**
  - Ability to develop a holistic approach to digital and green transition
  - Integrative thinking and practice of economic, environmental and social goals of development
  - Envisioning change: critically assessing societal changes at various levels (local, regional, national, international) and envisioning sustainable futures
  - Ability to live together: collaborating, teaching and facilitating diverse groups (trans-disciplinary approach, inter-generational, inter-cultural, etc.)

- Design & Future thinking
  - Innovation / Design thinking
  - Ability to change and be forward-looking, to develop the currently given situations into other, new and unknown future concepts and to approach them creatively
  - Ability to embrace innovation as an integral part of any organisational subject and process
  - Using concrete and agile methods to carry out creative development processes in an outcome-open manner in relation to given problems.

# DIGITAL SOFT SKILLS FOR STUDENTS

Figure 2. D2S framework for students





## STUDENTS FRAMEWORK DESCRIPTION

### DEVELOPING ME

- **Digital literacy**
  - Information literacy (digital search, analysis and research skills)
  - Manipulating and reproducing information (including knowledge of data rights, licencing, open resources, etc.)
  - Effectively and ethically using digital information and data
- **Digital identity**
  - Being aware of one's digital footprint
  - Creating a successful digital identity / profile for different contexts
  - Managing a positive digital reputation across different platforms
- **Digital well-being**
  - Understanding the different aspects of digital wellbeing
  - Charting one's personal technology use
  - Looking after one's health in a digital environment
- **Digital safety, including dealing with risks and challenges in digital contexts (e.g. addiction, bullying, etc.)**

### ENGAGING WITH OTHERS

- **Digital collaboration**
  - Working in digital teams
  - Finding, evaluating, selecting and using appropriate collaboration tools
  - Moderating online meetings
  - Managing own and team priorities in digital collaboration
- **Digital communication**
  - Finding, evaluating, selecting and using appropriate communication tools and formats
  - Communicating within the rules of Netiquette
  - Being able to adapt one's message to different digital media, audiences, and purposes

- **Digital influencing (leadership)**
  - Engaging and building relationships online
  - Negotiating with others in online spaces
  - Understanding a variety of perspectives

### ACTING NOW

- **Critical and analytical thinking in the digital space**
  - Critically analyzing digital sources, information, data and evidence
  - Considering different assumptions, perspectives and positions
  - Identifying and articulating own position and views in digital contexts
- **Problem-solving**
  - Identifying and defining a problem in a digital context
  - Developing appropriate options and strategies
  - Creatively using suitable digital technologies to solve problems
- **Creativity**
  - Thinking about a task or a problem in a new or different way
  - Using the imagination to generate new and unique ideas
  - Employing digital tools for creative thinking and acting

### CREATING THE FUTURE

- **Digital Citizenship**
  - Engaging and participating in an (online) community to address issues of public concern
  - Using suitable digital media to raise public awareness
  - Using suitable digital media to promote important societal causes
- **Digital Skills for Sustainable Development**
  - Ability to develop a holistic approach to digital and green transition (integrative thinking and practice)
  - Envisioning change: critically assessing societal changes and envisioning sustainable futures
  - Ability to live together: collaborate and negotiating with diverse groups (trans-disciplinary approach, inter-generational, inter-cultural, etc.)

- **Design & Future thinking**
  - Innovation / Design thinking
  - Combining tinkering (experiential learning) with formal learning of new technologies
  - Ability to change and be forward-looking, to develop the currently given situations into other, new and unknown future concepts and to approach them creatively.
  - Ability to embrace innovation as an integral part of any organisational subject and process
  - Using concrete methods to carry out creative development processes in an outcome-open manner in relation to given problems.

# BROADER COMPETENCES

## INTERCULTURAL EMPATHY

Globalisation and internationalisation of higher education means increasing interaction with diverse people. It is important to be aware of differences in culture, language, attitudes and identity. In a digital space, this is further impacted by lack of physical cues to help understand meaning. Intercultural empathy is to actively embrace diversity, be aware of different and shifting identities and be consciously inclusive.

- Responsibility & ethical competence
- Being aware and open to others' perceptions and viewpoints
- Ability to understand your identity and those you interact with
- Acknowledging and embracing diversity and a global mindset

Educator specific:

- Ability to raise awareness and impart the above competences to students

## REFLECTIVE PRACTICE

Reflection is a key component of good teaching practice, and all functions can be transferred to the digital space so that educators should have the ability 'to individually reflect on, critically assess and actively develop one's own digital pedagogical practice and that of one's educational community.' (Eddico Output 1.3).

- Ability to identify, recognise and articulate one's thinking value systems and those of others
- Ability to assess their impact on one's own decisions and actions and their consequences
- Ability to learn from one's own reflections
- Using digital tools to support reflection (e.g. digital story telling, ePortfolios)

### Educator specific

- Ability to raise awareness and impart the above competences to students

## FLEXIBLE THINKING IN LEARNING

The digital environment can mean having to change well-established routines and methods, sometimes with very little warning. Flexible thinking is the ability to quickly assess a situation and adapt, and to be flexible in considering and accepting alternatives.

In a digital educational context it is a key underlying competence that can facilitate core digital soft skills.

- Acceptance of new technologies
- Open-mindedness to others' ideas
- Adapting to (sudden) changes in learning situations

### Educator specific

- Adapting pedagogical strategies and practices to digital environments (i.e. face to face and online teaching often need to be approached differently)
- Ability to raise awareness and impart the above competences to students

## CONTINUOUS PROFESSIONAL DEVELOPMENT (CPD)

CPD encompasses all the core and underlying competences. If an educator is practicing these competences, reflecting on, improving or working towards acquiring the competence, then that in itself, is CPD. Further to this, 'Digital Continuous Professional Development (CPD): to use digital sources and resources for continuous professional development' (Eddico Output 1.4).

# DEFINING SKILLS VS. COMPETENCIES

An important consideration relates to the definition of the terms "skills" and "competence" and how they relate to each other. One useful distinction between the two is provided by the OECD's DeSeCo project: "A competence is more than just knowledge or skills. It involves the ability to meet complex demands, by drawing on and mobilising psychosocial resources (including skills and attitudes) in a particular context. For example, the ability to communicate effectively is a competence that may draw on an individual's knowledge of language, practical IT skills and attitudes towards those with whom he or she is communicating" (Rychen & Salganik, 2003).

The European Commission's Cedefop glossary (Cedefop, 2008) defines a skill as follows: the ability to perform tasks and solve problems, while a competence is the ability to apply learning outcomes adequately in a defined context (education, work, personal or professional development). A competence is not limited to cognitive elements (involving the use of theory, concepts or tacit knowledge); it also encompasses functional aspects (involving technical skills) as well as interpersonal attributes (e.g. social or organizational skills) and ethical values.

A competence is therefore a broader concept that may actually comprise skills (as well as attitudes, knowledge, etc) and 21st century competencies were in fact the primary focus of this study (Ananiadou, K. & Claro, M., 2009).

For the purposes of the D2S project, it was decided to use digital «competence» and «competences» as a term, since the EU is using it throughout its policy documents on Higher Education and digital competence, for example in the European Reference Framework of Key Competences for Lifelong Learning 4 that sets out the knowledge, skills and attitudes people need for life, including digital competence.

## SKILLS

Skills are the specific learned abilities that you need to perform a given job well; soft skill is a non-technical skill that is less rooted in specific vocations (Social Hays, 2019).

## COMPETENCIES

Competencies are the person's knowledge and behaviours that lead them to be successful in a job. Competencies effectively explain how an individual's behaviours bring about the desired results in their role (McNeill, 2019).

Competencies are defined as “the set of knowledge, skills, and experience necessary for future, which manifests in activities” (Katane et. al.44). Gupta (4) define competencies as “knowledge, skills, attitudes, values, motivations and beliefs people need in order to be successful in a job.”

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# SOURCES

- Ehlers, U.-D. (2020). Future Skills. The future of learning and higher education. Books on Demand. ISBN-13: 9783750494268
- McNeill, J. (2019), "Skills vs. competencies – what's the difference, and why should you care", HAYS Recruiting Experts Worldwide,
  - <https://social.hays.com/2019/10/04/skills-competencies-whats-the-difference/> (12.4.2021)
- Katane, I. et al. (2006), "Teacher competence and further education as priorities for sustainable development of rural school in Latvia." Journal of Teacher Education and Training. 6. 41-59.
- Gupta, K. (1999), "A practical guide for need assessment", San Francisco: John Wiley & Sons. Inc.
- OECD (2005), "Are students ready for a technology-rich world? What PISA studies tell us", Paris: OECD.
- Ananiadou, K. & Claro, M. (2009), "21st Century Skills and Competences for New Millennium Learners in OECD Countries", OECD Education Working Papers, No. 41, OECD Publishing.
  - <http://dx.doi.org/10.1787/218525261154>
  - <https://eur-lex.europa.eu/legal-content/ENT/?uri=COM%3A2018%3A22%3AFIN>
  - [https://ec.europa.eu/esco/portal/escopedia/European\\_Digital\\_Competence\\_Framework\\_for\\_Citizens\\_\\_40\\_DigComp\\_41\\_](https://ec.europa.eu/esco/portal/escopedia/European_Digital_Competence_Framework_for_Citizens__40_DigComp_41_)
  - <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.874.7140&rep=rep1&type=pdf> from page 30 on