LEARNING TOGETHER

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

Ministry for Foreign Affairs of Finland

MOVING FORWARD TOGETHER
THIS PROJECT IS CO-FUNDED BY THE EUROPEAN UNION

FCG

Teachers' and students' digital competence: What should they know and manage?

The webinar programme on ICT IN PEDAGOGY

2.12.2022

Dr Liisa Ilomäki & Dr Minna Lakkala , University of Helsinki

A common acceptance of the need to provide students with competencies

A strong policy acceptance about improving students' general skills and competences, including digital ones.

Several descriptions about the necessary competencies, e.g. by OECD (2013): The general key competences categorized into four major groups

1. Cognitive competences (e.g., communication, information processing, problem solving, learning and mathematics),
2. Interpersonal competences (e.g., teamwork, cultural sensitivity),
3. Intrapersonal competences (e.g., self-regulation, self management, creativity/entrepreneurship), and
4. **Technological competences**

Terms used about almost same competencies:
General competencies, *Future competencies, 21st competencies (skills)*, *Work life competencies*

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
Ministry for Foreign Affairs of Finland
MOVING FORWARD TOGETHER
THIS PROJECT IS CO-FUNDED BY THE EUROPEAN UNION
FCG

Liisa Ilomäki & Minna Lakkala, University of Helsinki

Digital competence is a combination of four subject domains

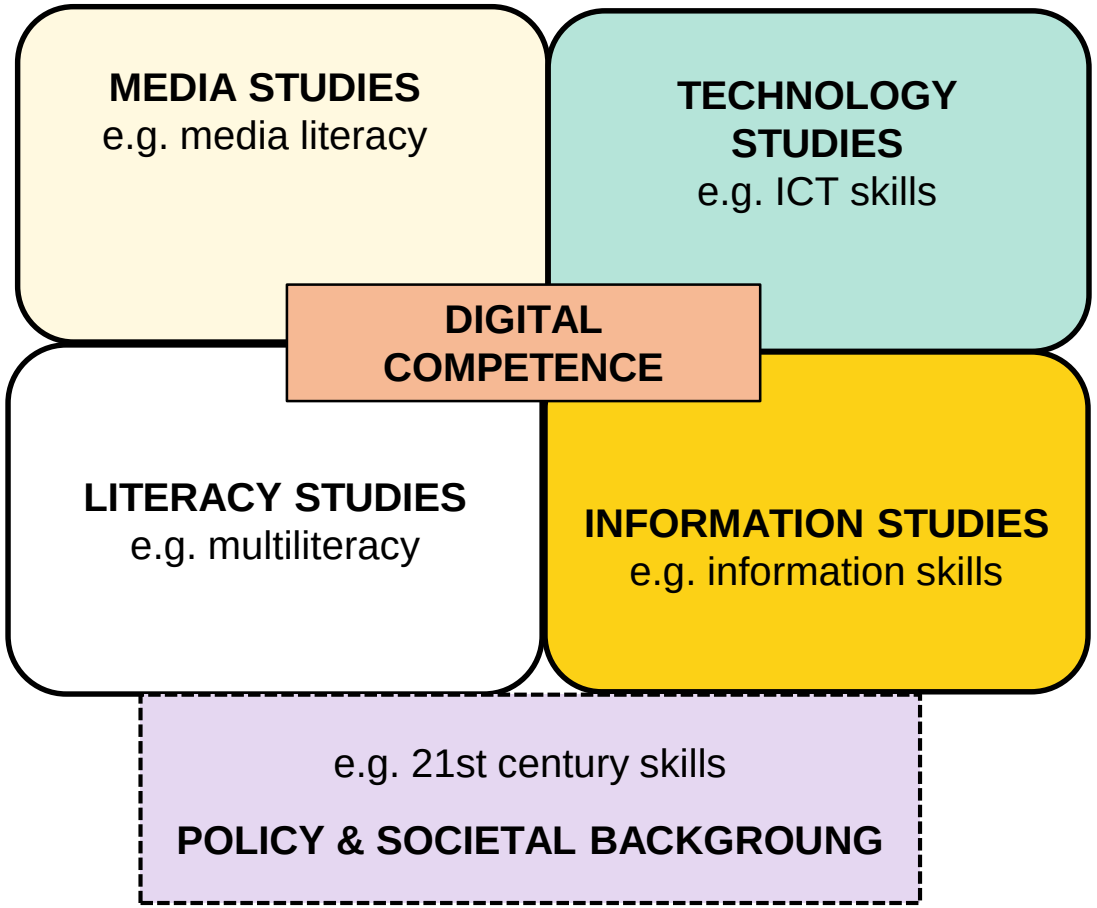
”Levels”

1. Technical skills and practices in using digital technologies, a central basis for digital competence.

2. Abilities to use and apply digital technologies in a meaningful way and as an appropriate tool for working, studying and for various activities in everyday life.

3. Abilities to understand the phenomena of digital technologies: understanding of the ethical issues, the limitations and challenges, the critical use of the various technologies; also recent interests in computational thinking and robotics.

4. Motivation to participate and engage in the digital culture: attitudes as well as social and cultural issues; the motivation to participate and engage.



MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
Ministry for Foreign Affairs of Finland
MOVING FORWARD TOGETHER
THIS PROJECT IS CO-FUNDED BY THE EUROPEAN UNION
FCG

Liisa Ilomäki & Minna Lakkala, University of Helsinki

Further from digital competence to critical digital literacy

- A research-based model, refined for practice (teachers and educators): critical digital literacy, created in the DETECT project (Developing Teachers Critical Digital Literacies).
- The creation of the new framework answers the questions of what should teachers know about ***critical digital literacies*** in the society and what should be taught to students in schools besides technological skills.
- Project descriptions in https://www.detectproject.eu/

DETECT Developing Teachers' Critical Digital Literacies

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

Ministry for Foreign Affairs of Finland

MOVING FORWARD TOGETHER
THIS PROJECT IS CO-FUNDED BY THE EUROPEAN UNION

FCG

Liisa Ilomäki & Minna Lakkala, University of Helsinki

How the framework was created

- Systematic literature review in the area of critical digital literacies (searches from databases Ebsco and Web of Science; analysis of policy-related documents and frameworks were analysed)
- Results discussed and integrated through six project consortium meetings adopting the “Panel Experts” method (Coulter et al., 2016).
- Empirical research (semi-structured, focus group interviews conducted with teachers from the four participating schools in Finland, Italy, Spain and the UK).

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
Ministry for Foreign Affairs of Finland
MOVING FORWARD TOGETHER
THIS PROJECT IS CO-FUNDED BY THE EUROPEAN UNION
FCG

Eight key dimensions

Origin in two literacies and in some societal areas in which digitality has a strong influence and which are important to understand and manage

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
Ministry for Foreign Affairs of Finland
MOVING FORWARD TOGETHER
THIS PROJECT IS CO-FUNDED BY THE EUROPEAN UNION
FCG

DETECT Developing Teachers' Critical Digital Literacies

CRITICAL DIGITAL LITERACIES

TECHNOLOGY USE

- Critical technical skills
- Computational thinking
- Technology risks & troubleshooting

DATA LITERACIES

- Data analytics
- Data protection & data safety
- Big and open data
- Data visualisation

INFORMATION LITERACIES

- Digital media use
- Online reading comprehension
- Online inquiry process
- Source validation & verification

DIGITAL CONTENT CREATION

- Creative digital expression
- Co-creation
- Multimodal production
- Digital publishing
- Remixing

DIGITAL TEACHING & LEARNING

- Digital pedagogical methods
- Learning analytics
- Digital learning ecologies

DIGITAL CITIZENSHIP

- Rights & responsibilities
- Sustainable use
- Digital civic engagement

DIGITAL WELLBEING & SAFETY

- Empowerment
- Online safety
- Digital overexposure
- Digital selfhood
- Digital belonging
- Ergonomics

DIGITAL COMMUNICATION & COLLABORATION

- Online communication
- Online collaboration
- Digital empathy
- Networking
- Digital identity & profiles
- Online privacy

DETECT Developing Teachers' Critical Digital Literacies

CRITICAL DIGITAL LITERACIES

TECHNOLOGY USE

- Critical technical skills
- Computational thinking
- Technology risks & troubleshooting

Computational thinking is a next step from basic skills, supported in many curricula.

INFORMATION LITERACIES

- Digital media use
- Online reading comprehension
- Online inquiry process
- Source validation & verification

DIGITAL CONTENT CREATION

- Creative digital expression
- Co-creation
- Multimodal production
- Digital publishing
- Remixing

DIGITAL TEACHING & LEARNING

- Digital pedagogical methods
- Learning analytics
- Digital learning ecologies

DIGITAL CITIZENSHIP

- Rights & responsibilities
- Sustainable use
- Digital civic engagement

DIGITAL WELLBEING & SAFETY

- Empowerment
- Online safety
- Digital overexposure
- Digital selfhood
- Digital belonging
- Ergonomics

DIGITAL COMMUNICATION & COLLABORATION

- Online communication
- Online collaboration
- Digital empathy
- Networking
- Digital identity & profiles
- Online privacy

DETECT Developing Teachers' Critical Digital Literacies

CRITICAL DIGITAL LITERACIES

TECHNOLOGY USE

- Critical technical skills
- Computational thinking
- Technology risks & troubleshooting

DATA LITERACIES

- Data analytics
- Data protection & data safety
- Big and open data
- Data visualisation

Emerging issue - the role of big data or data analytics is increasing in the society and in education.

DIGITAL CONTENT CREATION

- Creative digital expression
- Co-creation
- Multimodal production
- Digital publishing
- Remixing

DIGITAL TEACHING & LEARNING

- Digital pedagogical methods
- Learning analytics
- Digital learning ecologies

DIGITAL CITIZENSHIP

- Rights & responsibilities
- Sustainable use
- Digital civic engagement

DIGITAL WELLBEING & SAFETY

- Empowerment
- Online safety
- Digital overexposure
- Digital selfhood
- Digital belonging
- Ergonomics

DIGITAL COMMUNICATION & COLLABORATION

- Online communication
- Online collaboration
- Digital empathy
- Networking
- Digital identity & profiles
- Online privacy

DETECT Developing Teachers' Critical Digital Literacies

CRITICAL DIGITAL LITERACIES

TECHNOLOGY USE

- Critical technical skills
- Computational thinking
- Technology risks & troubleshooting

The web is used a lot as an information source, but students do not necessarily know how to search for and use information, even if they think that they master the skills.

INFORMATION LITERACIES

- Digital media use
- Online reading
- comprehension
- Online inquiry process
- Source validation & verification

DIGITAL CONTENT CREATION

- Creative digital
- expression
- Co-creation
- Multimodal production
- Digital publishing
- Remixing

DIGITAL TEACHING & LEARNING

- Digital pedagogical methods
- Learning analytics
- Digital learning ecologies

DIGITAL CITIZENSHIP

- Rights & responsibilities
- Sustainable use
- Digital civic engagement

DIGITAL WELLBEING & SAFETY

- Empowerment
- Online safety
- Digital overexposure
- Digital selfhood
- Digital belonging
- Ergonomics

DIGITAL COMMUNICATION & COLLABORATION

- Online communication
- Online collaboration
- Digital empathy
- Networking
- Digital identity & profiles
- Online privacy

DETECT Developing Teachers' Critical Digital Literacies

CRITICAL DIGITAL LITERACIES

TECHNOLOGY USE

- Critical technical skills
- Computational thinking
- Technology risks & troubleshooting

DATA LITERACIES

- Data analytics
- Data protection & data safety
- Big and open data
- Data visualisation

Practiced less in schools but part of young people's world. We would like to see co-creational activities more in schools.

DIGITAL CONTENT CREATION

- Creative digital expression
- Co-creation
- Multimodal production
- Digital publishing
- Remixing

DIGITAL TEACHING & LEARNING

- Digital pedagogical methods
- Learning analytics
- Digital learning ecologies

DIGITAL CITIZENSHIP

- Rights & responsibilities
- Sustainable use
- Digital civic engagement

DIGITAL WELLBEING & SAFETY

- Empowerment
- Online safety
- Digital overexposure
- Digital selfhood
- Digital belonging
- Ergonomics

DIGITAL COMMUNICATION & COLLABORATION

- Online communication
- Online collaboration
- Digital empathy
- Networking
- Digital identity & profiles
- Online privacy

DETECT Developing Teachers' Critical Digital Literacies

CRITICAL DIGITAL LITERACIES

TECHNOLOGY USE

- Critical technical skills
- Computational thinking
- Technology risks & troubleshooting

DATA LITERACIES

- Data analytics
- Data protection & data safety
- Big and open data
- Data visualisation

INFORMATION LITERACIES

- Digital media use
- Online reading comprehension
- Online inquiry process
- Source validation & verification

DIGITAL CONTENT CREATION

- Creative digital expression
- Co-creation
- Multimodal production
- Digital publishing
- Remixing

DIGITAL TEACHING & LEARNING

- Digital pedagogical methods
- Learning analytics
- Digital learning ecologies

DIGITAL CITIZENSHIP

- Rights & responsibilities
- Sustainable use
- Digital civic engagement

It is important for young people to be aware of their identity in social media and understand the importance of empathy in online interaction.

DIGITAL COMMUNICATION & COLLABORATION

- Online communication
- Online collaboration
- Digital empathy
- Networking
- Digital identity & profiles
- Online privacy

DETECT Developing Teachers' Critical Digital Literacies

CRITICAL DIGITAL LITERACIES

TECHNOLOGY USE

- Critical technical skills
- Computational thinking
- Technology risks & troubleshooting

DATA LITERACIES

- Data analytics
- Data protection & data safety
- Big and open data
- Data visualisation

INFORMATION LITERACIES

- Digital media use
- Online reading comprehension
- Online inquiry process
- Source validation & verification

DIGITAL CONTENT CREATION

- Creative digital expression
- Co-creation
- Multimodal production
- Digital publishing
- Remixing

DIGITAL TEACHING & LEARNING

- Digital pedagogical methods
- Learning analytics
- Digital learning ecologies

Dangers are emphasized, but digitality has also positive effects, like empowerment.

DIGITAL WELLBEING & SAFETY

- Empowerment
- Online safety
- Digital overexposure
- Digital selfhood
- Digital belonging
- Ergonomics

DIGITAL COMMUNICATION & COLLABORATION

- Online communication
- Online collaboration
- Digital empathy
- Networking
- Digital identity & profiles
- Online privacy

DETECT Developing Teachers' Critical Digital Literacies

CRITICAL DIGITAL LITERACIES

TECHNOLOGY USE

- Critical technical skills
- Computational thinking
- Technology risks & troubleshooting

DATA LITERACIES

- Data analytics
- Data protection & data safety
- Big and open data
- Data visualisation

INFORMATION LITERACIES

- Digital media use
- Online reading comprehension
- Online inquiry process
- Source validation & verification

DIGITAL CONTENT CREATION

- Creative digital expression
- Co-creation
- Multimodal production
- Digital publishing
- Remixing

DIGITAL TEACHING & LEARNING

- Digital pedagogical methods
- Learning analytics
- Digital learning ecologies

DIGITAL CITIZENSHIP

- Rights & responsibilities
- Sustainable use
- Digital civic engagement

Respecting copyright relates to rights and responsibilities. Sustainability is extremely important related to utilizing resources for digitalization.

DIGITAL COMMUNICATION & COLLABORATION

- Online communication
- Online collaboration
- Digital empathy
- Networking
- Digital identity & profiles
- Online privacy

DETECT Developing Teachers' Critical Digital Literacies

CRITICAL DIGITAL LITERACIES

TECHNOLOGY USE

- Critical technical skills
- Computational thinking
- Technology risks & troubleshooting

DATA LITERACIES

- Data analytics
- Data protection & data safety
- Big and open data
- Data visualisation

INFORMATION LITERACIES

- Digital media use
- Online reading comprehension
- Online inquiry process
- Source validation & verification

DIGITAL CONTENT CREATION

- Creative digital expression
- Co-creation
- Multimodal production
- Digital publishing
- Remixing

DIGITAL TEACHING & LEARNING

- Digital pedagogical methods
- Learning analytics
- Digital learning ecologies

Learning analytics is aimed at providing technical support for improving teaching and learning.

DIGITAL WELLBEING & SAFETY

- Empowerment
- Online safety
- Digital overexposure
- Digital selfhood
- Digital belonging
- Ergonomics

DIGITAL COMMUNICATION & COLLABORATION

- Online communication
- Online collaboration
- Digital empathy
- Networking
- Digital identity & profiles
- Online privacy