



Enhancing Digital Competence for Educational Engagement

Frameworks, Matrices, and Assessment Tools in Video Conferencing-Mediated Teaching

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PORTABLE VIDEO CONFERENCING
TOOLKITS & ONLINE APPLICATIONS
FOR ENGAGING HIGHER EDUCATION CLASSROOMS

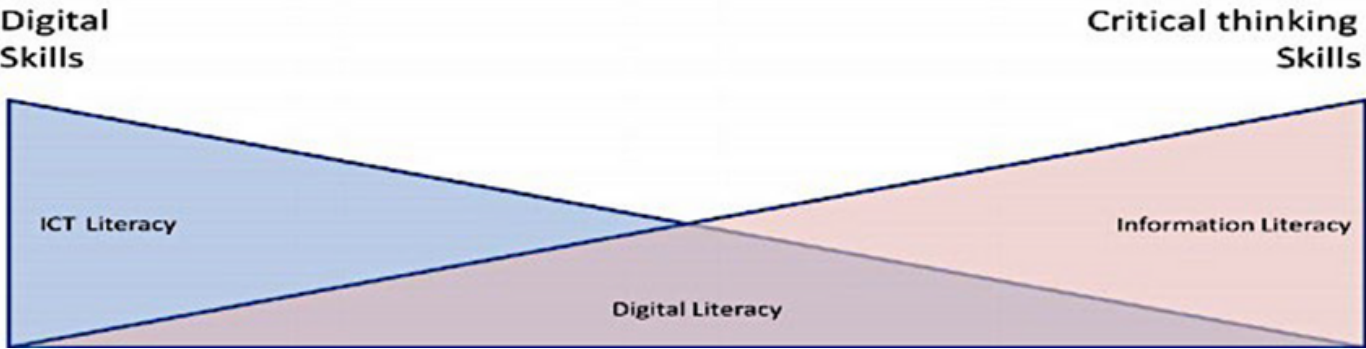
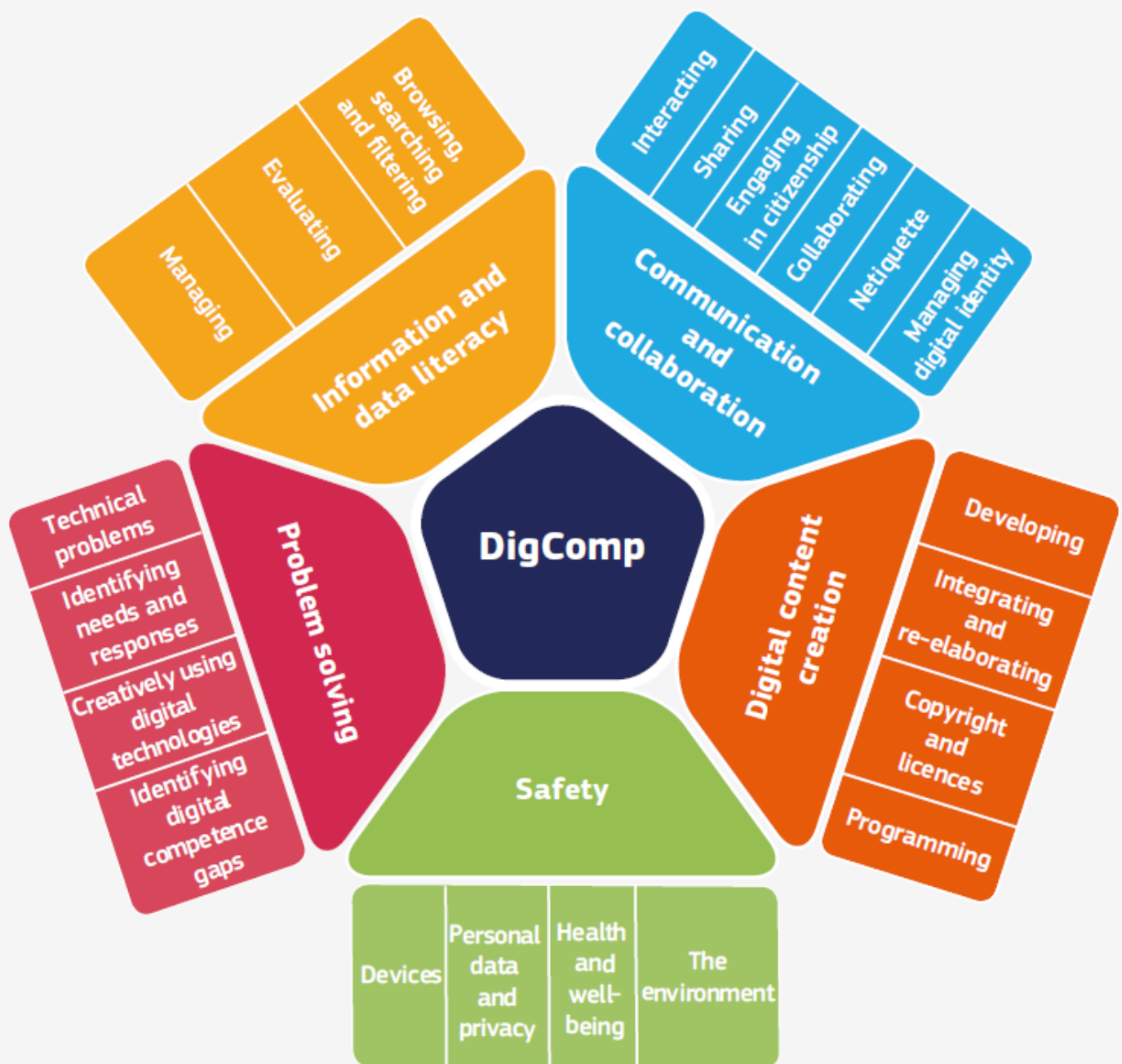


Figure 1. A review of digital literacy : evidence, developmental models, and recommendations. Newman (2008)

SELECTION OF FREAMWORKS

1. *UNESCO ICT in Education Curriculum for Schools and Programme of Teacher Development* (UNESCO, 2002)
2. *The digital competence framework for primary and secondary schools in Europe* (Guitert et al., 2020) [LINK](#)
3. *Quebec Digital Competency Framework* (Quebec, 2019)
4. *French framework of digital competences* (MRE, 2020) [LINK](#)
5. *European Framework for Digitally-Competent Educational Organizations* (Kampylis, Punie, & Devine, 2015)
6. *The Digital Competence Framework* (Janssen et al. 2013)
7. *Competency Framework for the University Bachelor of Technology* (Georges & Poumay, 2020)
8. *The teacher digital competency (TDC) framework* (Falloon, 2020; Habowski & Mouza, 2014).
9. *The HeDiCom framework: Higher Education teachers' digital competencies for the future* (Tondeur et al. 2023)
10. *Indonesian National Digital Literacy Framework* (Bahasa, 2021) [LINK](#)
11. *Self-reflection tool Higher Education SELFIE for TEACHERS* (Falloon, 2020)
12. *European Framework for the Digital Competence of Educators* (Redecker & Punie, 2017) [LINK](#)
13. *The DC4LT Assessment Framework* (Perifanou, 2022) [LINK](#)

DigComp Framework



Ferrari, A., & Punie, Y. (2013)

Vuorikari, R., Punie, Y., Gomez, S. C., & Van Den Brande, G. (2016)

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Considered features for Higher Education Digital Competence Framework for Video Conference

Competencies:

- **Technical Skills**
- **Harnessing the potential of digital resources for learning**
- **Readiness in manage the complexity of practices with digital tools**
- **Pedagogical Practices (Communication and Collaboration/Empowering students)**
- **Privacy and security**

Digital Teaching Practice:

- **Designing and Implementing**
- **Facilitating and Monitoring**
- **Evaluating and Modifying**

Families of Situations:

- **Classroom Teaching (face-to-face)**
- **Online Teaching**
- **Blended Learning Environments**

Levels of Competency Development:

- **Foundational Level**
- **Intermediate Level**
- **Advanced Level**
- **Critical Learnings/Digital Teaching Practice:**
- **Designing digital learning materials**
- **Facilitating interactive online sessions**
- **Evaluating effectiveness of digital teaching methods**

Learning and Assessment Situations (LAS):

- **Virtual classroom simulations**
- **Online collaborative projects**
- **Digital teaching portfolios**

Resources:

- **Online teaching guides and tutorials**
 - **Educational technology tools**
 - **Professional development workshops**
 - **Personal-ethical awareness, concern, actions**
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Developed Higher Education Digital Competence Framework for Video Conference



Competency	Sub competencies	Description
Technical skills management	Platform Navigation	Proficiency in navigating video conferencing platforms (Menu navigation, feature usage of chat, screen sharing; settings adjustment)
	Technical Setup	Setting up necessary technical components for video conferencing (Connecting and configuring microphones, cameras, and internet connections)
	Distraction Management	Managing and eliminating distractions during video conferences (Background control, muting participants, managing notifications)
	Background Management	Managing virtual backgrounds (Uploading and selecting virtual backgrounds, adjusting settings for optimal visibility)
	Breakout Room Management	Creating and managing breakout rooms (Setting up breakout rooms, moving between rooms, and monitoring activities within each room)
Harnessing the potential of digital resources for learning	Essential Hardware	Regular use and maintenance of necessary hardware (Computer/Smart Devices, Microphone, External Speaker, Webcam/Video Camera)
	Supporting Software	Proficiency in using supporting software for presentations and document sharing (For presenting and sharing documents)
	Additional Digital Tools	Using of additional digital tools to enhance video conferencing (Auto-Zoom and Auto-Rotation Cameras, Extended Screen, Stylus Pen/Pen Tablet)
Manage the complexity of practices with digital tools	Computer/Smart Devices	Varying levels of proficiency in using computers and smart devices.
	Video Camera & Microphone	Proficiency in using video cameras and microphones.
	Specialized Equipment	Using of specialized equipment like auto-zoom cameras.
	Software Platforms	Proficiency in using various software platforms



Competency	Sub competencies	Description
Communication & Collaboration	Constructivist Approach	Encouraging interactive and engaging activities for students to construct their own understanding.
	Collaborative Approach	Facilitating teamwork and collaborative projects using breakout rooms and group discussions.
	Integrative Approach	Integrating multimedia resources and tools for comprehensive learning.
Empowering students	Inquiry-Based Approach	Encouraging questions and research for deeper understanding (chat, padlet etc) .
	Reflective Approach	Providing opportunities for reflection on learning experiences and outcomes (Reflective activities, feedback sessions).
	Data control and responsible use	Ensuring measures to protect one's personal identity & sensitive information, data use and privacy (storage of data, RGPT), safe use of resources and tools
Privacy and Security	To perform the targeted competencies	Designing & developing Virtual classroom simulations, Online collaborative projects Digital teaching portfolios
Assessment Situations	To navigate diverse environment productively	Considering impact on personal and collective wellbeing and environment implications (Data centres, carbon footprint, to limit data usage and adopt energy-efficient habits)
Awareness & Impact		