Capacity building for online and blended learning: European Digital Competence frameworks for learners and educators

Yves Punie, PhD
Deputy Head of Unit Human Capital & Employment
JRC Sevilla
@yves998

ALO final conference, 11 October 2018, Brussels
European Commission Joint Research Centre (JRC)

- Internal science and knowledge service of the Commission
- JRC mission is to support EU policies with independent evidence throughout the whole policy cycle
- Policy neutral: has no policy agenda of its own
- Work for more than 20 EC policy departments
Content

- Digital skills challenges
- European policy context
- DigComp: European Digital Competence framework
- DigCompEdu: European Digital Competence framework for Educators
Main (digital) skills challenges in Europe

- About 70 million Europeans lack sufficient reading, writing and numeracy skills
- 24% of EU population has no upper secondary education diploma
- 13% of Europeans have never used the Internet
- 43% of EU population and 35% of UE labour force have insufficient digital skills
- 42% of those with no digital skills are unemployed
- Digital natives ≠ digital competence

MOOCs & Digital Skills

MOOKnowledge pilot data on MOOC learners. N=1910

Students' perceived digital competence is positively associated with achievement, particularly when they are more frequently exposed to enquiry-based instruction at school.

Digital Skills and digital learning challenges also high on European agenda

- 2018 Council Recommendation on Key Competences for Lifelong Learning {COM (2018) 24 final}
- 2017 COM on school development and excellent teaching for a great start in life {ST 9009 2018 INIT}
- 2017 COM on a Renewed European agenda for Higher Education {COM(2017) 247 final}
- 2016 New Skills Agenda {COM(2016) 381 final}
- Digital Single Market initiative

=> JRC: Digital Competence frameworks (DigComp, DigCompEdu, DigCompOrg SELFIE, EntreComp, OpenEdu)
DigComp: European Digital Competence framework

What?
- A competence framework defining and describing key competences, proficiency levels and "knowledge, skills and attitudes" examples

Why?
- Provide an overall, complete and shared understanding of what is DC

Method:
- Strong scientific underpinning
- Consensus building with multiple stakeholders
- Updating and revising

Multiple uses:
- Curricula review, teacher training, (self-)assessment/reflection, policies, practical initiatives, jobseekers, certification, measurement (E.g. DESI indicators), etc...
Digital Competence involves **confident, critical and responsible** use of, and **engagement** with the full range of digital technologies for learning, at work, and for participation in society

(Council Recommendation on Key Competences for Lifelong Learning, 22 May 2018, ST 9009 2018 INIT)
<table>
<thead>
<tr>
<th>Competence areas</th>
<th>Competences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Information and data literacy</strong></td>
<td>1.1 Browsing, searching and filtering data, information and digital content</td>
</tr>
<tr>
<td></td>
<td>1.2 Evaluating data, information and digital content</td>
</tr>
<tr>
<td></td>
<td>1.3 Managing data, information and digital content</td>
</tr>
<tr>
<td><strong>2. Communication and collaboration</strong></td>
<td>2.1 Interacting through digital technologies</td>
</tr>
<tr>
<td></td>
<td>2.2 Sharing through digital technologies</td>
</tr>
<tr>
<td></td>
<td>2.3 Engaging in citizenship through digital technologies</td>
</tr>
<tr>
<td></td>
<td>2.4 Collaborating through digital technologies</td>
</tr>
<tr>
<td></td>
<td>2.5 Netiquette</td>
</tr>
<tr>
<td></td>
<td>2.6 Managing digital identity</td>
</tr>
<tr>
<td><strong>3. Digital content creation</strong></td>
<td>3.1 Developing digital content</td>
</tr>
<tr>
<td></td>
<td>3.2 Integrating and re-elaborating digital content</td>
</tr>
<tr>
<td></td>
<td>3.3 Copyright and licences</td>
</tr>
<tr>
<td></td>
<td>3.4 Programming</td>
</tr>
<tr>
<td><strong>4. Safety</strong></td>
<td>4.1 Protecting devices</td>
</tr>
<tr>
<td></td>
<td>4.2 Protecting personal data and privacy</td>
</tr>
<tr>
<td></td>
<td>4.3 Protecting health and well-being</td>
</tr>
<tr>
<td></td>
<td>4.4 Protecting the environment</td>
</tr>
<tr>
<td><strong>5. Problem solving</strong></td>
<td>5.1 Solving technical problems</td>
</tr>
<tr>
<td></td>
<td>5.2 Identifying needs and technological responses</td>
</tr>
<tr>
<td></td>
<td>5.3 Creatively using digital technologies</td>
</tr>
<tr>
<td></td>
<td>5.4 Identifying digital competence gaps</td>
</tr>
</tbody>
</table>
DigComp into Action: get inspired, make it happen

- A guide for stakeholders addressing digital skills
- It explains DigComp and how it is used
- It provides 38 examples of use, across
  - Formal education & training
  - Lifelong learning and social inclusion
  - Employability and employment
- An opportunity to learn from each other

2,680 downloads June-July 2018
38,000 DigComp downloads since 2017
Example: Adult Education in Flanders

Opleidingsprofielen Secundair volwassenenonderwijs
Overzicht studiegebieden

De opleidingen die in combinatie met het certificaat van de opleiding Aanvullende algemene vorming leiden tot een diploma secundair onderwijs, worden aangeboden door...

Informatie- en communicatiotechnologie

Opleidingen:
- Sociaal ontwikkeling NIEUW VANAF 01/09/2016
- ICT bedrijfsoperatie en netwerken NIEUW VANAF 01/09/2016
- ICT en administratie NIEUW VANAF 01/09/2016
- ICT en sociale media NIEUW VANAF 01/09/2016
- ICT in een creatieve context NIEUW VANAF 01/09/2016
- ICT in een educatieve context NIEUW VANAF 01/09/2016
- ICT programmeren NIEUW VANAF 01/09/2016
- Informatie- en communicatiotechnologie

AANVULLING OPLEIDINGSMODULE

- Start to ICT NIEUW VANAF 01/09/2016
- Naadloos NIEUW VANAF 01/09/2016

Referentiekader

Relatie opleidingen referentiekader

De verkozen modules blijven geldig naar de duur ervan is vastgelegd in BVK en niet meer in een afzonderlijk opleidingsprofiel.
DigCompEdu

- Published November 2017
- 7,800 downloads first half of 2018
- Describes what it means for educators to be digitally competent
- Educators at all educational levels
- 6 Competence areas – 22 competences – 6 proficiency levels
In a traditional classroom, 3.1 could be the most important competence.

To plan for and implement digital devices and resources into the teaching process, so as to enhance the effectiveness of teaching interventions. To appropriately manage and orchestrate digital teaching interventions. To experiment with and develop new formats and pedagogical methods for instruction.
However, blended and online learning requires more...

3. Teaching
3.1 Teaching
3.2 Guidance
3.3 Collaborative Learning
3.4 Self-regulated Learning
2. Digital resources

Finding, creating and sharing resources that are tailored to the learning context and individual learners' needs.
4. Assessment

Innovatively using the potential of digital tools for enhancing assessment and feedback

Assessment strategies

Analysing evidence

Feedback and Planning
5. Facilitating Learners' Digital Competence

- Information and media literacy
- Digital communication & collaboration
- Digital content creation
- Responsible use
- Digital problem solving

Making learners fit for life in the digital age
1. Professional engagement

Opening up communication and collaboration strategies, within and beyond the organisation

Enhancing and developing pedagogical competences
Not everyone can be / should be expert or pioneer

Self-reflection allows for understanding one's strength and weaknesses, to look for training and to improve proficiency in some competences

Current JRC work: self-reflection and self-assessment instrument
Thank you

yves.punie@ec.europa.eu

@yves998