SELFIE's sister projects on Learning and Skills

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The European Commission’s science and knowledge service
Joint Research Centre

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Digital Skills and digital learning challenges are high on European agenda

• Digital Education Action Plan, 2018
• Council Recommendation on Key Competences for Lifelong Learning, 2018
• School development and excellent teaching for a great start in life, 2017
• A renewed European agenda for Higher Education, 2017
• New Skills Agenda, 2016
• Digital Single Market, 2015
JRC Competence frameworks

- Digital Competence framework for citizens (DigComp)
  - Digital Competence framework for consumers (DigCompConsumer)
- Digital Competence framework for educators (DigCompEdu)
- Digital Competence framework for educational organisations (DigCompOrg) and SELFIE
- Open Education framework for higher education institutions (OpenEdu)
- Entrepreneurship Competence framework for individuals (EntreComp)
- **NEW**: Personal, Social, Learning to Learn competence framework for individuals (LifeComp)
Why all these frameworks?

Capacity building for transformation of E&T; addressing skills challenges in the digital age

What?

- Reference frameworks providing an overall, complete and shared understanding
- Conceptual model, proficiency levels & (self-)assessment modules

Multiple uses:

- Curricula, teacher training, assessment/reflection, policies, practical initiatives, measurement, etc...

JRC contribution:

- Strong scientific underpinning + consensus building
- European view, independent of national or commercial interests
- Facilitating peer learning and exchange, sharing of evidence and analysis
Links between the frameworks...?
Links between the frameworks
DigComp, DigCompEdu, DigCompOrg
DigCompOrg -> SELFIE for schools: holistic view
DigCompEdu and SELFIE
DigCompEdu: holistic view
DigComp and SELFIE
DigComp also quite encompassing/holistic

<table>
<thead>
<tr>
<th>Competence areas</th>
<th>Competences</th>
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<tbody>
<tr>
<td>1. Information and data literacy</td>
<td>1.1 Browsing, searching and filtering data, information and digital content</td>
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<td>1.2 Evaluating data, information and digital content</td>
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<td>1.3 Managing data, information and digital content</td>
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<td>2. Communication and collaboration</td>
<td>2.1 Interacting through digital technologies</td>
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<td>2.2 Sharing through digital technologies</td>
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<td>2.3 Engaging in citizenship through digital technologies</td>
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<td>2.4 Collaborating through digital technologies</td>
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<td>2.5 Netiquette</td>
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<td>2.6 Managing digital identity</td>
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<td>3. Digital content creation</td>
<td>3.1 Developing digital content</td>
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<td>3.2 Integrating and re-elaborating digital content</td>
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<td>3.3 Copyright and licences</td>
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<td>3.4 Programming</td>
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<td>4. Safety</td>
<td>4.1 Protecting devices</td>
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<td>4.2 Protecting personal data and privacy</td>
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<td>4.3 Protecting health and well-being</td>
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<td>4.4 Protecting the environment</td>
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<td>5. Problem solving</td>
<td>5.1 Solving technical problems</td>
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<td>5.2 Identifying needs and technological responses</td>
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<td>5.3 Creatively using digital technologies</td>
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• Strong interlinkages between the frameworks; their aim is to be structural/comprehensive

• Differences lies within the angles you take: learner, educator, organisation, policymaker

• However, we do understand there is a need to clarify differences and similarities, and to explore how these frameworks can work together - more work to be done

• Technological progress, especially Artificial Intelligence, might require us to revise the frameworks anyway

  • Changing skills requirements as a result of AI and automation impact on jobs/tasks

  • Need for AI skills at all levels (specialist, professionals/educators, citizens/learners)

  • Impact of AI on E&T, and on LLL
Self-reflection/self-assessment tools

DigCompSat
Pilot by Dec 2019

DigCompEdu Check-in
Pilot until 31/07/2019

DigCompEduSat
Pilot by Dec 2019

E&T system

SELFIE
Self-reflection/self-assessment tools

- **DigCompSat**
  - Pilot by Dec 2019

- **DigCompEdu Check-in**
  - Pilot until 31/07/2019

- **DigCompEduSat**
  - Pilot by Dec 2019

- **SELFIE**

**Diagram**

- Individuals
- Educators/trainers
- E&T system
- Schools
Challenges related to (self-)assessment/reflection tools

- Strong need for conceptual clarifications
- Different types of assessment (direct/indirect; knowledge/tasks, practices, perceptions)
- How to deal with proficiency levels?
- European Commission tools and links with other European, MS national/regional tools
- Limited academic research on assessment of digital competence (Meelisen, 2008)
  - Little consensus on what should be assessed and how (Maderick et al. 2015)
  - Existing instruments usually only assess some elements (Siddiq et al., 2016)
  - Lack of transparency on assessment methodologies; lack of reliability (e.g. item tests) and validity studies

> Depends on the purpose but it is always a cost-benefit compromise
# 2018-2019 selected publications on digital age learning

## 2019

- Methodological guide for implementation and evaluation of open e-textbooks programmes (March 2019)
- Innovating CPD in Compulsory Education (February 2019)

### Upcoming

- Innovating PD in Higher Education (May)
- Innovative forms of assessment (May)
- Practical Guidelines on Open Education for Academics (June)
- The use of reference frameworks to support digitally competent citizens – the case of DigComp, ITU report (Autumn)

### Planned

- Results from SELFIE & from SELFIE VET-WBL feasibility
- Educational Makerspaces in Europe: exploring future implications
- AI for and with Teachers; ....

## 2018

- Impact of Artificial Intelligence on Learning, Teaching and Education (November)
- Who is taking MOOCs for teachers’ professional development on the use of ICT? A cross-sectional study from Spain, Technology, Pedagogy & Education (October)
- Free Digital Learning for Inclusion of Migrants and Refugees in Europe: A Qualitative Analysis of Three Types of Learning Purposes, IRRODL (May)
- DigComp into Action: Get inspired, make it happen (May)
- Can digital technologies help reduce the immigrant-native educational achievement gap? (PISA 2015) (Jan)
- EntreComp into Action - Get inspired, make it happen (March)
Thank you

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