

# Addressing digital skills challenges through European digital competence frameworks and tools

Yves Punie, PhD

Deputy Head of Unit

Human Capital & Employment, JRC Seville

Towards a national Digital Competence Network,

BU Ministry of Labour and Social Policy,





### Content

- Digital skills challenges
- European policy context
- DigComp: Digital Competence framework for individuals
- DigCompEdu: Digital Competence framework for educators
- **SELFIE**: supporting schools' digital competence



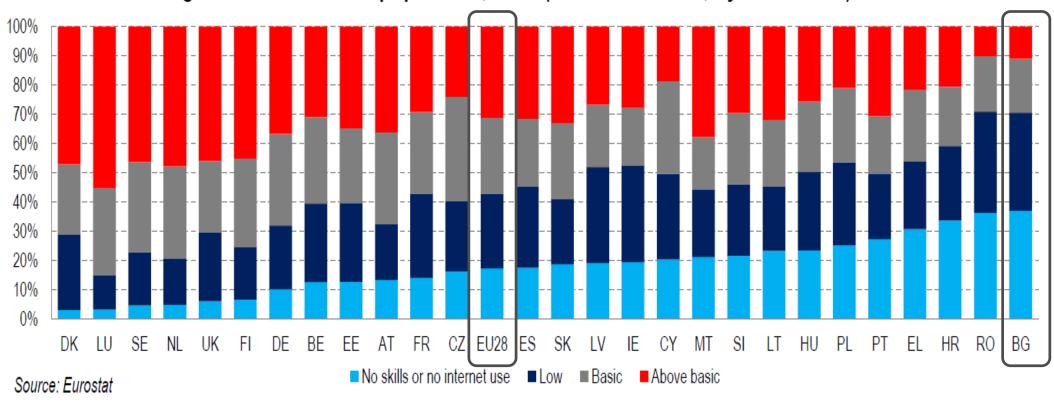
## Main (digital) skills challenges in Europe

- 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



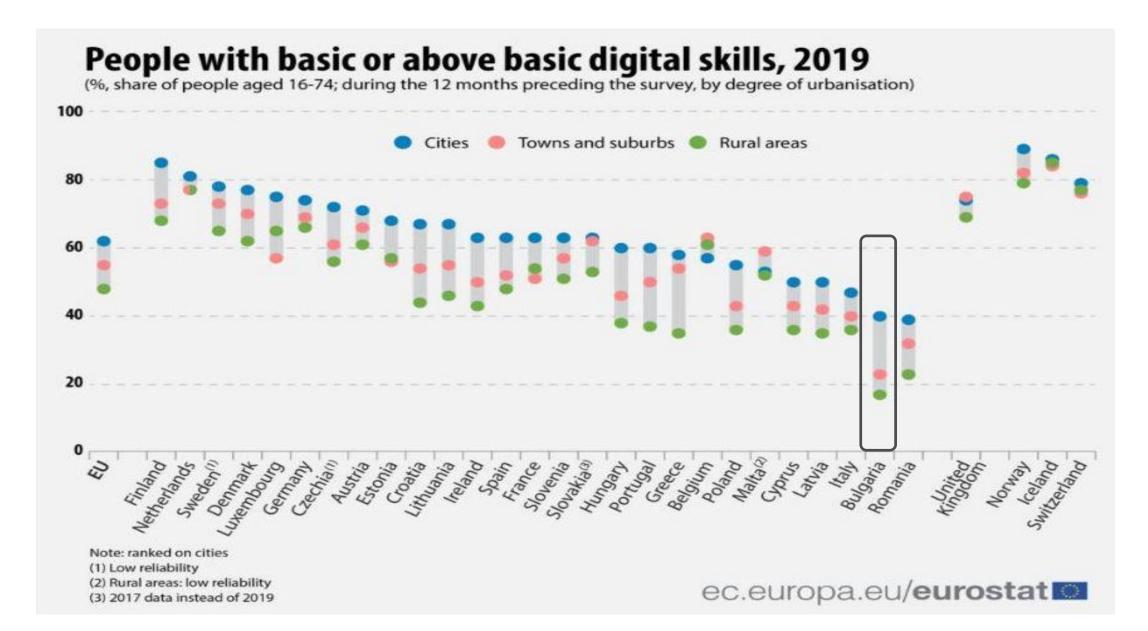
## Digital Skills Indicator (DSI)







## Digital Skills Indicator (DESI)





"No, you weren't downloaded. Your were born."



## Digital Skills and digital learning challenges also high on European agenda

- 2018 Digital Education Action Plan {COM(2018) 22 final} => DEAP-2 June 2020
- 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} => Update March 2020
- Digital Single Market initiative



### JRC/EC Digital Competence frameworks

- Digital Competence framework for citizens (DigComp)
- Digital Competence framework for educators (DigCompEdu)
- Digital Competence framework for educational organisations (DigCompOrg) and a self-reflection tool for schools (SELFIE)



### Why all these frameworks?

• Capacity building for the digital transformation of E&T and for addressing 21st century skills challenges

#### What?

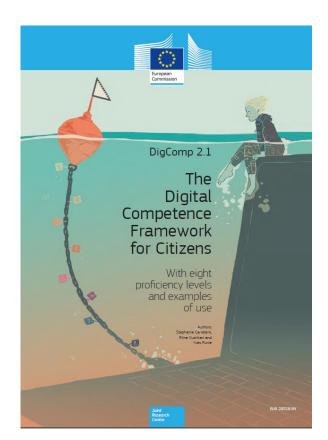
- Reference frameworks providing an overall, complete and shared understanding: a common language
- Conceptual model, proficiency levels & (self-)assessment modules
- Competence defined as Knowledge, Skills and Attitudes

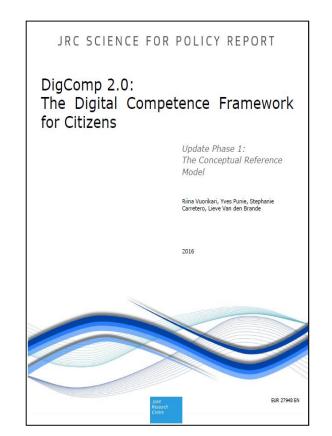
#### Multiple uses:

• Curricula review, teacher training, (self-)assessment/reflection, policies, practical initiatives, jobseekers, certification, measurement (E.g. DSI indicators), etc...

### DigComp

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)





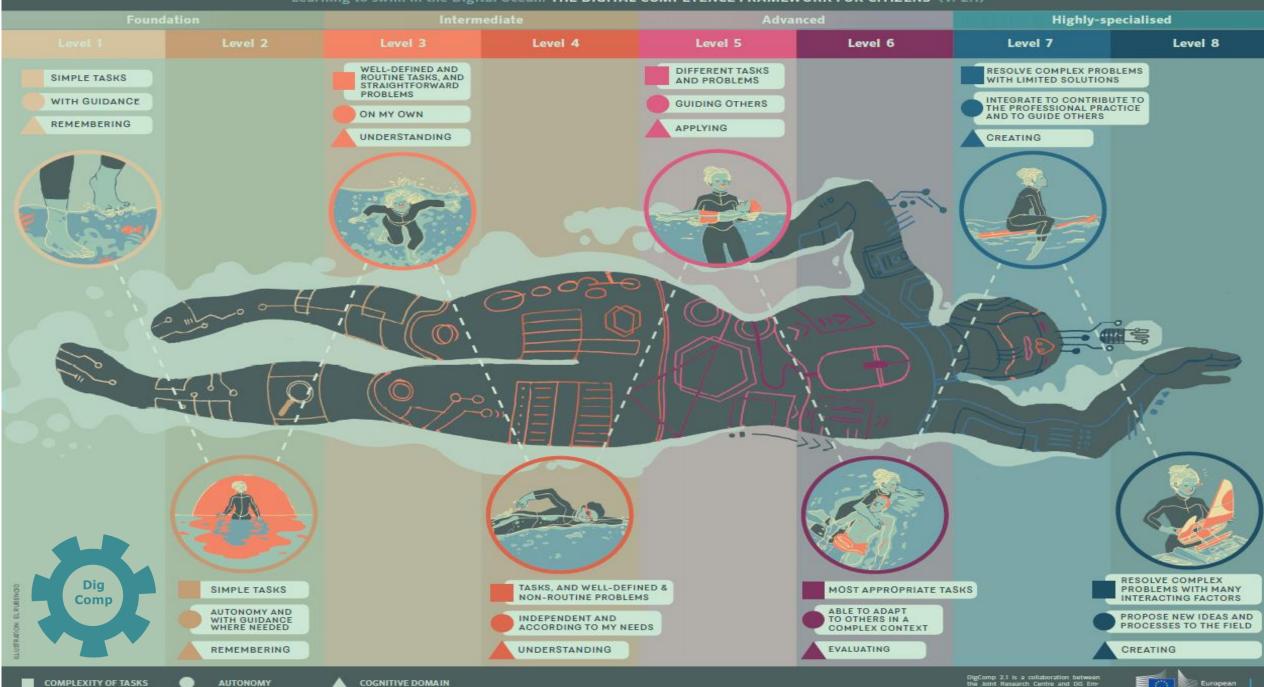






Competence areas	Competences
1. Information and data literacy	<ul><li>1.1 Browsing, searching and filtering data, information and digital content</li><li>1.2 Evaluating data, information and digital content</li><li>1.3 Managing data, information and digital content</li></ul>
2. Communication and collaboration	<ul> <li>2.1 Interacting through digital technologies</li> <li>2.2 Sharing through digital technologies</li> <li>2.3 Engaging in citizenship through digital technologies</li> <li>2.4 Collaborating through digital technologies</li> <li>2.5 Netiquette</li> <li>2.6 Managing digital identity</li> </ul>
3. Digital content creation	<ul> <li>3.1 Developing digital content</li> <li>3.2 Integrating and re-elaborating digital content</li> <li>3.3 Copyright and licences</li> <li>3.4 Programming</li> </ul>
4. Safety	<ul> <li>4.1 Protecting devices</li> <li>4.2 Protecting personal data and privacy</li> <li>4.3 Protecting health and well-being</li> <li>4.4 Protecting the environment</li> </ul>
5. Problem solving	<ul> <li>5.1 Solving technical problems</li> <li>5.2 Identifying needs and technological responses</li> <li>5.3 Creatively using digital technologies</li> <li>5.4 Identifying digital competence gaps</li> </ul>

#### Learning to swim in the Digital Ocean: THE DIGITAL COMPETENCE FRAMEWORK FOR CITIZENS (V. 2.1)





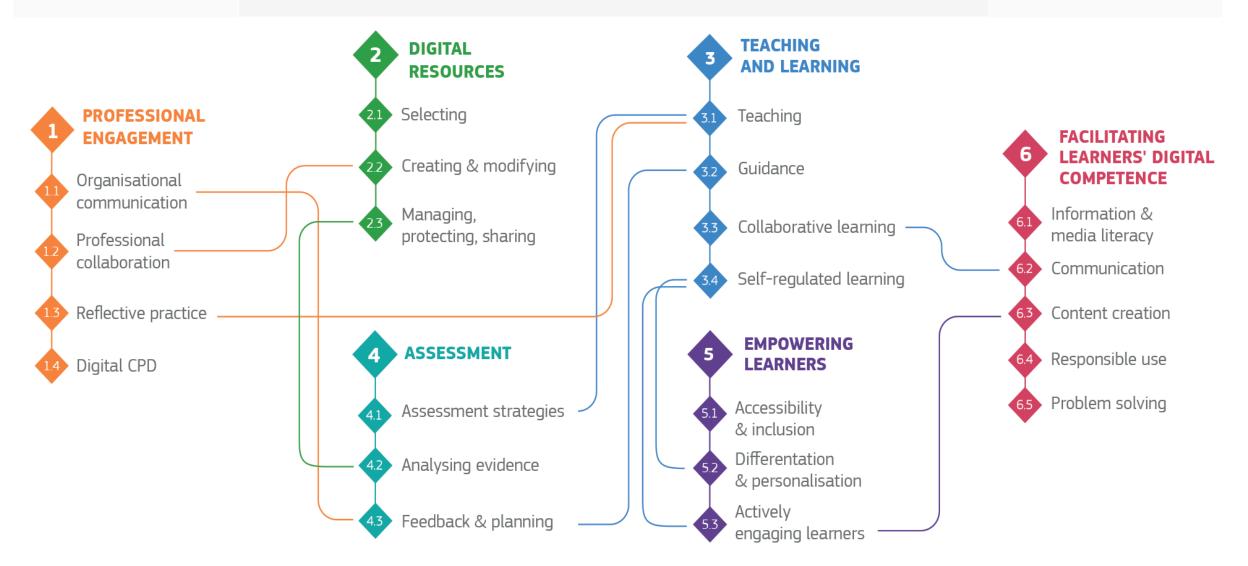
- **Published November 2017**
- > 30.000 unique downloads
- Describes what it means for educators to be digitally competent
- **Educators at all educational levels**
- 6 Competence areas 22 competences 6 proficiency levels

https://ec.europa.eu/jrc/en/digcompedu



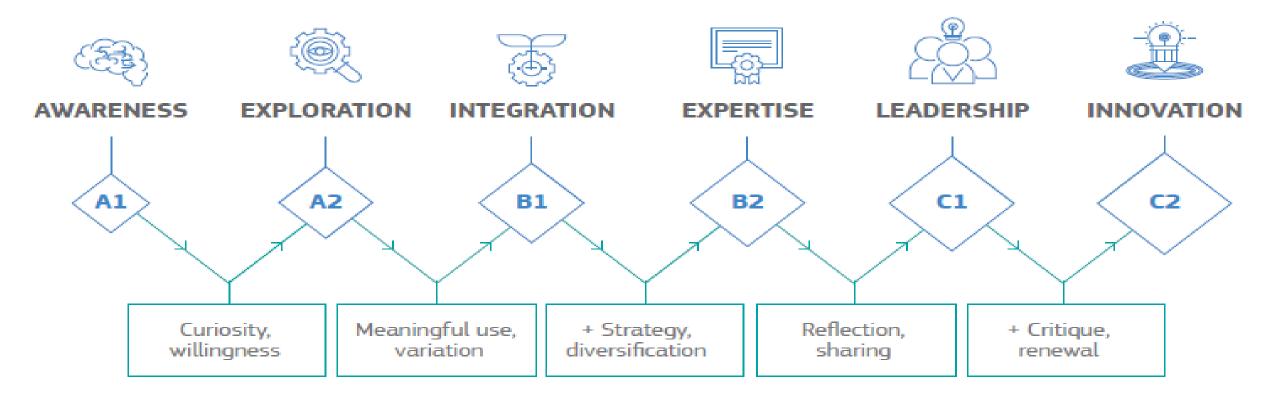
## **Educators**' pedagogic competences

**Learners**' competences





## DigCompEdu proficiency levels



- → 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

Commission

#### DigCompEdu continued

- Developing a self-reflection tool for educators
  - First trial: 22 questions; 19.000 users (ES, IT, SE, DE, PT, LT, SI, EN, RU)
  - In Spain, representative simple of universities (May-June 2020)
  - Further pilot for School teachers (end 2020)
  - https://ec.europa.eu/jrc/digcompedu/self-assessment
- Piloting a self-assessment knowledge-based tool (EE, FI, PT, ES, IT) (May 2020)



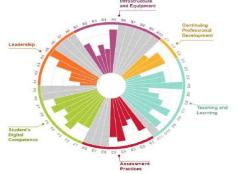
## SELFIE: supporting schools' digital capacity

- A free, online, easy-to-use, customisable self-reflection tool for schools
- SELFIE was launched by Commissioner Navracsics on 25/10/2018
- Based on JRC DigCompOrg conceptual model & collaborative design process with experts, after successful pilot in 2017 (650 schools, 67.714 responses, 14 countries)
- SELFIE is NOT another survey -> a tool "for" schools to be done by school leaders, teachers and students
- Generates school report for reflection, monitoring & action plan; data are anonymous and "owned" by schools

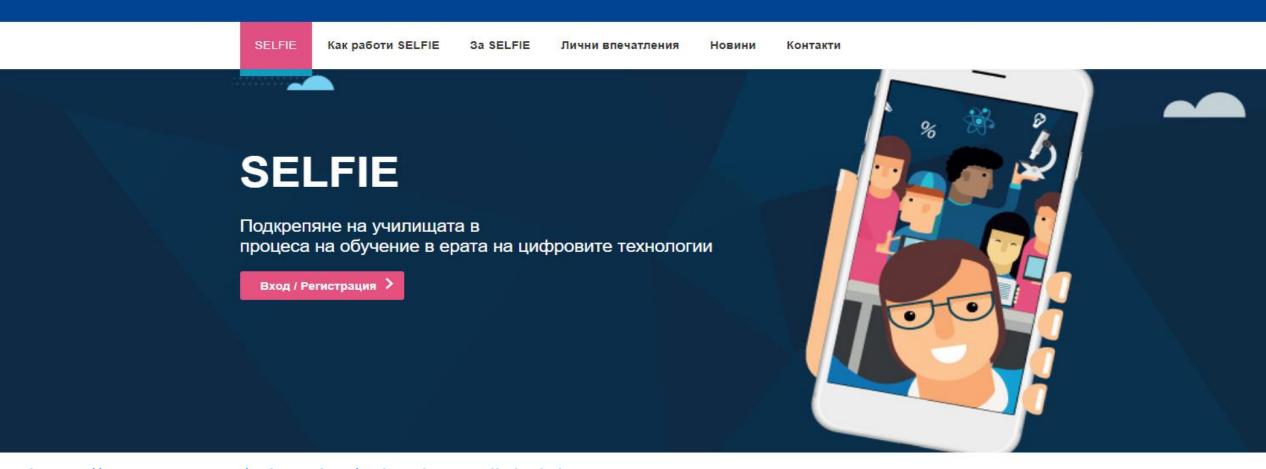


#### **#SELFIE EU**





#### SELFIE



https://ec.europa.eu/education/schools-go-digital\_bg

#### Открийте цифровия потенциал на Вашето училище

Вашето училище използва ли в максимална степен цифровите технологии за целите на преподаването и обучението?

SELFIE е безплатен, лесен за използване инструмент, който може да се адаптира към потребителя, с чиято помощ училищата могат да оценят своето равнище на преподаване в ерата на цифровите технологии.

## SELFIE: participation data (1/2/2020)

562.009 participants — 5.364 schools

(7.211 School levels)

- **✓** 82% students (458.679)
- ✓ 15% teachers (86.634)
- √ 3% headmasters (16.696)

From these 562.009 users (>30 countries)

- ✓ 29,2% Spain (164.142)
- ✓ 16,4% Bulgaria (92.130)
- ✓ 14,9% Serbia (83.624)





## PRODIG CONSEJERÍA DE EDUCACIÓN

1110101010 111010101111 10101

111010101 #PRODIG

1110101010 0101010101 00001

0111111000 1010101111 10101



Programa

Desarrollo

Ámbitos básicos

₱ Educación / PRODIG / Programa / ¿Qué es PRODIG?

#### PRODIG: Programa de Digitalización de Centro

Tomando como referente el Marco Europeo para Organizaciones Educativas Digitalmente Competentes (DigCompOrg), la Consejería de Educación pone en marcha para el curso 2018/19 el Programa de Digitalización de Centros (PRODIG), con el objetivo fundamental de impulsar y apoyar la transformación de los centros docentes en organizaciones educativas digitalmente competentes.

A lo largo del proceso, el centro contará con herramientas para **diagnosticar** la situación de partida del mismo en lo que se refiere al uso de las tecnologías educativas, recursos, formación y propuestas para la adquisición de la competencia digital por parte del alumnado y el profesorado.

PRODIG facilitará la transformación del centro propiciando procesos de enseñanza y aprendizaje en un entorno tecnológico y convertirlo en un espacio de encuentro para docentes y alumnado, facilitando el acceso directo a los contenidos digitales e introduciendo cambios tanto metodológicos como organizativos, de forma que permita al alumnado aprender con claro carácter inclusivo.

En PRODIG es prioritario **animar y estimular** tanto al alumnado como al profesorado a avanzar en este proceso y se persigue mediante la personalización de la enseñanza y la mejora de la comunicación entre los participantes en este sistema.

#### **Opciones**

- ¿Qué es PRODIG?
- Marcos europeos de competencia digital
- Antes de PRODIG

Normativa PRODIG &



# Thank you

yves.punie@ec.europa.eu @yves998

https://ec.europa.eu/jrc/en/research-topic/learning-and-skills



#### © European Union 2020

Unless otherwise noted the reuse of this presentation is authorised under the <u>CC BY 4.0</u> license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

