



civicaMente



SANTA CHIARA LAB
Università di Siena 1240



ERAB
POW0
Milly Suter
Pinerolo, BG



ESF-U6

DIGITAL COMPETENCES FOR EDUCATION



Co-funded by the
Erasmus+ Programme
of the European Union

2020-1-IT02-KA201-079705

Disclaimer. This report is the sole responsibility of the SKILLED project and does not represent the opinion of the European Commission or of the National Agency Indire nor is the European Commission or the National Agency Indire responsible for any use that may be made of the information it contains. The European Commission support for the production of this publication doesn't constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Educators on sustainability through food



6.1 Professional engagement



6.1.1 Organizational communication

Be able to use digital technologies for communicating in an effective and responsible way



Among the (few?) "good" lessons that the **pandemic** has delivered, one is addressed to the **world of teaching** and is specifically concerned with the possible **integration between technology and teaching**



mend the distance between theory and techniques



knowledge, media, and skills





Find how to use digital technologies for communicating in an effective and responsible way



Use different digital communication channels and tools, depending on the communication purpose and context

The sources of information on the internet can be divided into centralized and widespread

 centralized information hub

 source of widespread information





Define how to communicate digital technologies in an effective and responsible way



Communicate responsibly and ethically with digital technologies, e.g., respecting netiquette and acceptable use policies (AUP)

The internet is increasingly proposed to us as a deregulated space; however, this is not the case: the perimeters exist ...

- EULA (End-User License Agreement) for a software
- AUP (Acceptable Use Policy) for a website
- "netiquette" (RFC 1855 and RFC 2635)





6.2 Digital Resources



6.2.1 Managing, protecting and sharing digital resources

Be able to manage resources by using basic strategies for teaching, learning, creating contents, assessment and dissemination



The (Worldwide) WEB determines not only a peculiar alphabet, but also, its own **grammar**: fortunately, it is an **easier lexicon** compared to the languages that many teachers teach and that we have all learned



effectiveness and reliability



sharing content online and managing images





Define how to communicate by using basic strategies



Share educational content via e-mail attachments or through links

The contents that can be shared with learners can be divided into two types.

 content resident in the teacher's device

 content available online



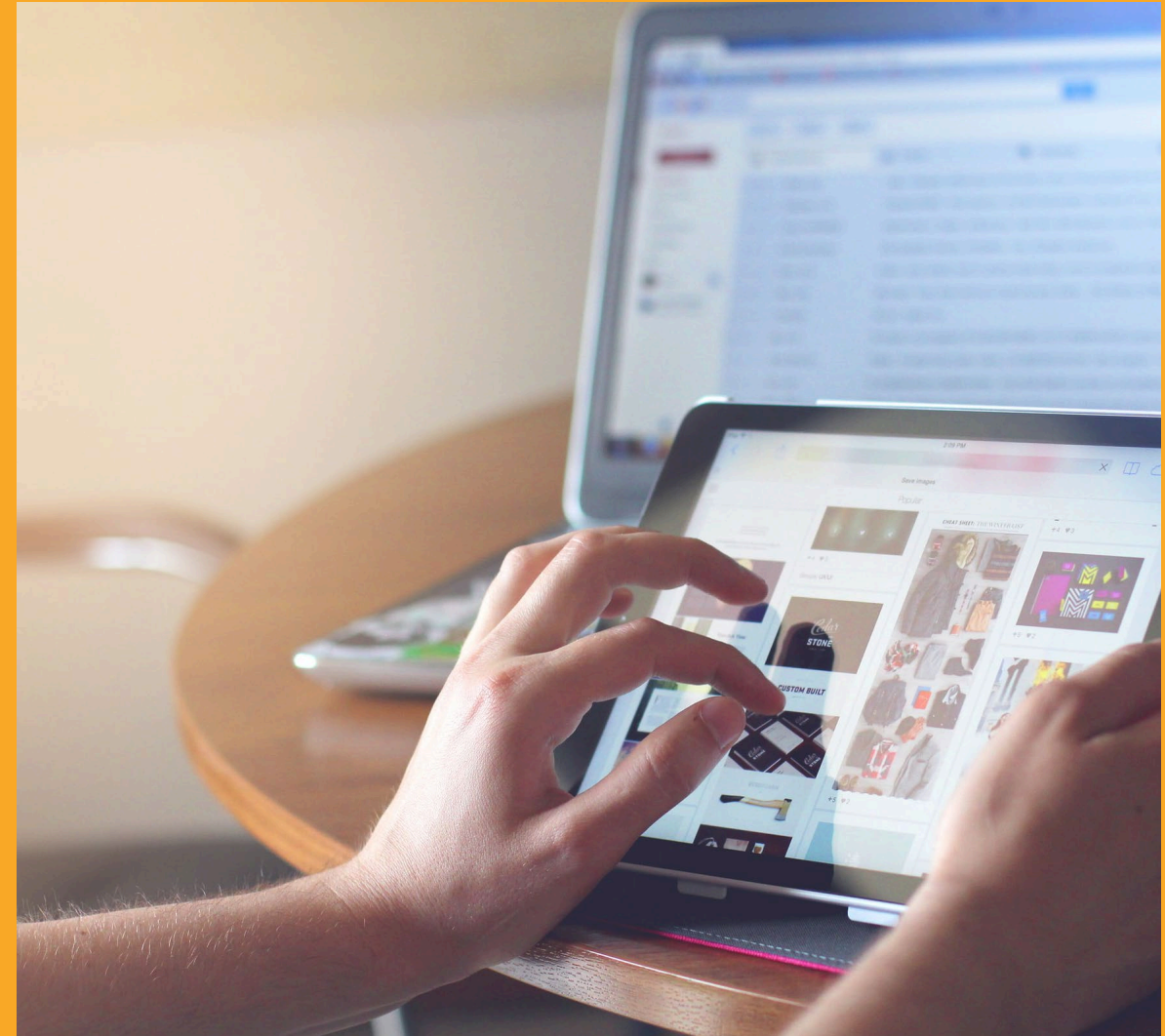
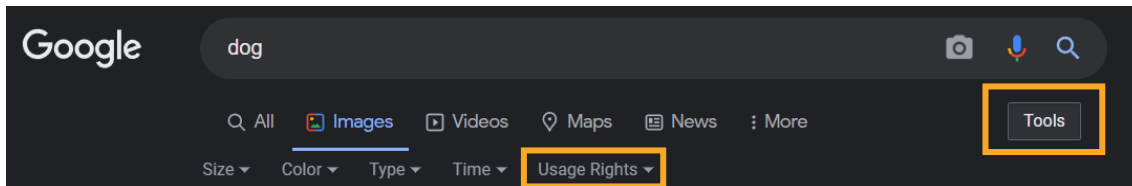


Identify the resources distributed on the internet



Be aware that some resources distributed on the internet are copyrighted

Importance of a **responsible attitude towards intellectual property**: texts, static and moving images, digital art, are always subject to **usage policies**.





6.3 Teaching and learning



6.3.1 Teaching

Be able to integrate available digital technologies meaningfully into the teaching process



After reviewing some basic skills, it is time to reflect on the integration of **hardware components, applications, and multimedia content formats**



multimedia richness and variety



individual sensitivity



complex and engaging experiences





Integrate and manage available digital technologies meaningfully into the teaching process



Organize and manage the integration of digital devices (e.g., classroom technologies, students' devices) into the teaching and learning process

It's a matter of defining a framework that also has a **technical nature**, which must be shared at school level (as it could present the need to make **infrastructural investments**), and where the presence of **specialist consultancy figures** within the school can also become crucial.



6.3.2 Guidance

Be able to use digital technologies to enhance interaction with learners



Thanks to **new technologies**, the concept of class moves further and further away from that of the classroom



messaging tools to create conversational spaces



no “unlimited-commitment”



know, manage, and regulate





Identify how to use and manage digital technologies to enhance interaction with learners



Use a common digital communication channel with their learners to respond to their questions and doubts



removes "officiality" from school communication




more privacy-proof
suited to articulated lexical developments
does not "invade" individual communication contexts
less automatic and more reasoned reading and response





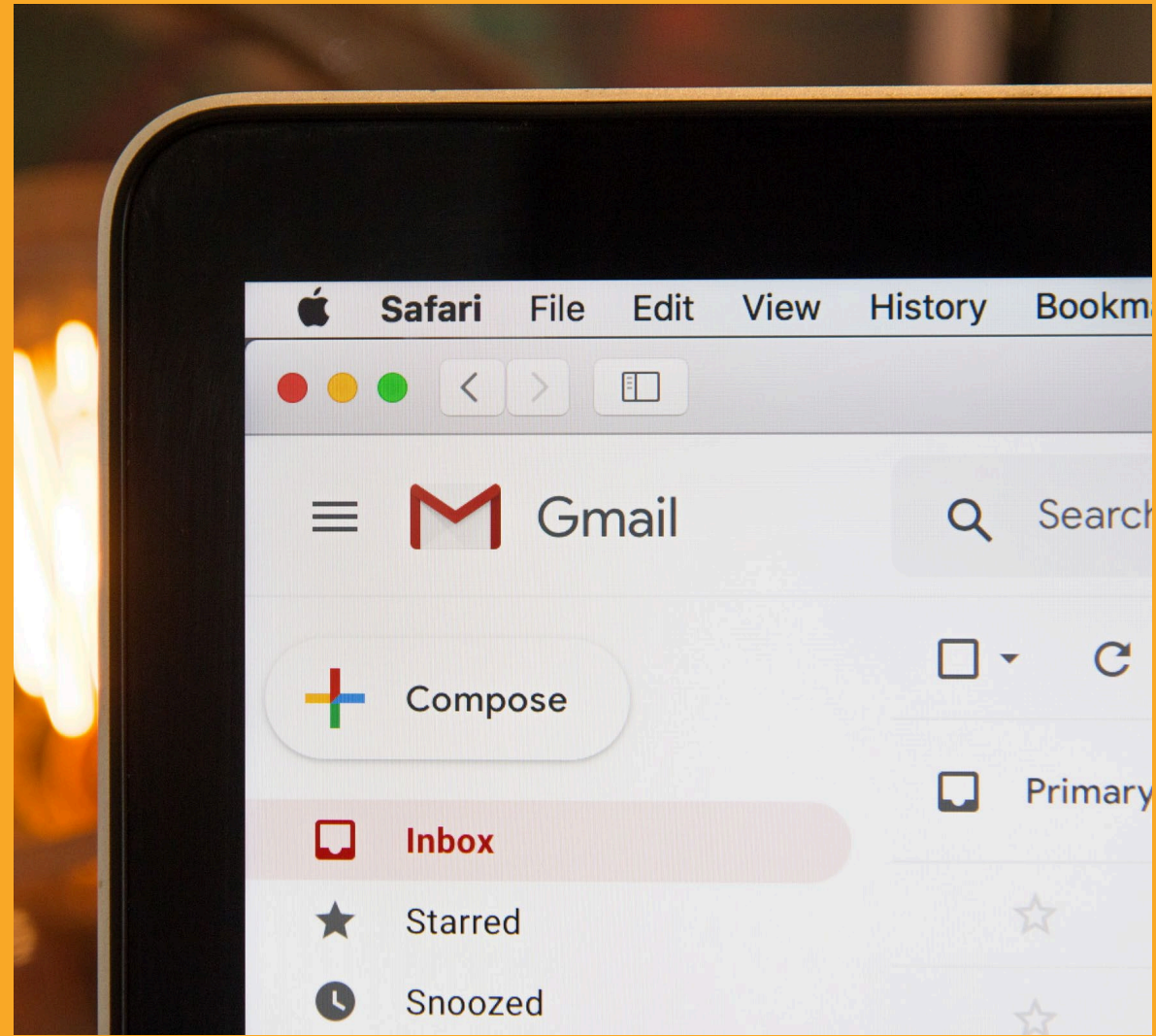


Identify how to use and manage digital technologies to enhance interaction with learners



Be frequently in contact with learners and listen to their problems and questions

-  create **specific mailing lists**: students only, parents only, thematic groups, etc.
-  **regular newsletter** from the teachers, with columns and ideas for many different disciplines



6.3.3 Collaborative learning

Be able to implement digital technologies into the design of collaborative activities



In all processes of knowledge there is a moment in which we must act, even better, when we must **start to "create"** ...



actual use of technologies in the design of educational experiences



"generative" aspects: collaboration and engagement





Define how implement and manage collaborative activities through the digital technologies



Design and implement collaborative activities, in which digital technologies are used by learners for their collaborative knowledge generation, e.g., for sourcing and exchanging information


🗨️ avoid generic, vague, research mandates

👍 ask students to develop researches aimed at compiling a digital mind map (integrate photos, videos, audio files, etc.) can be an interesting starting point for a shared activity of disciplinary analysis







Manage digital technologies for the design of collaborative activities



Encourage learners to document their collaborative efforts using digital technologies, e.g., digital presentation, videos, blog posts



Mind maps, digital presentations (even thanks to free plans with applications like Genially or Prezi) and media-based outputs (photos, videos, illustrations, etc.)



storytelling perspective





Manage the most appropriate tool for the active engaging of learners



Choose the most appropriate tool for fostering learner active engagement in a given learning context or for a specific learning objective



Flipped classroom moves times and places of what remains a frontal lesson



Narrative videos naturally activates collective participation, triggering activities like writing, role-play, creativity





6.4 Assessment



6.4.1 Feedback and planning

Be able to use digital technologies to provide feedback



A learning process also feeds on feedback information, which is important for the students, but also for the teachers themselves and, in some cases, are also useful for transforming families into an active component in the construction of knowledge which, often, have non-negligible value components



assessment and feedback tools



systematicity






Find how to suit their teaching activities based on the data generated by the digital technologies



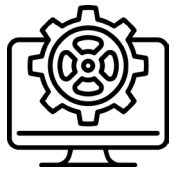
Adapt their teaching activity and assessment practices, based on the data generated by the digital technologies that they use

- **S**pecific (simple, sensible, significant)
- **M**easurable (meaningful, motivating)
- **A**chievable (agreed, attainable)
- **R**elevant (reasonable, realistic and resourced, results-based)
- **T**ime bound (time-based, time limited, time/cost limited, timely, time-sensitive)






Define how to use digital technologies to provide feedback



Provide personal feedback and offer differentiated support to learners, based on the data generated by the digital technologies used



The methodological value of the data that a questionnaire could create, can only be fully unfolded when these results become **shared with students and families** (and not used only by the teacher)





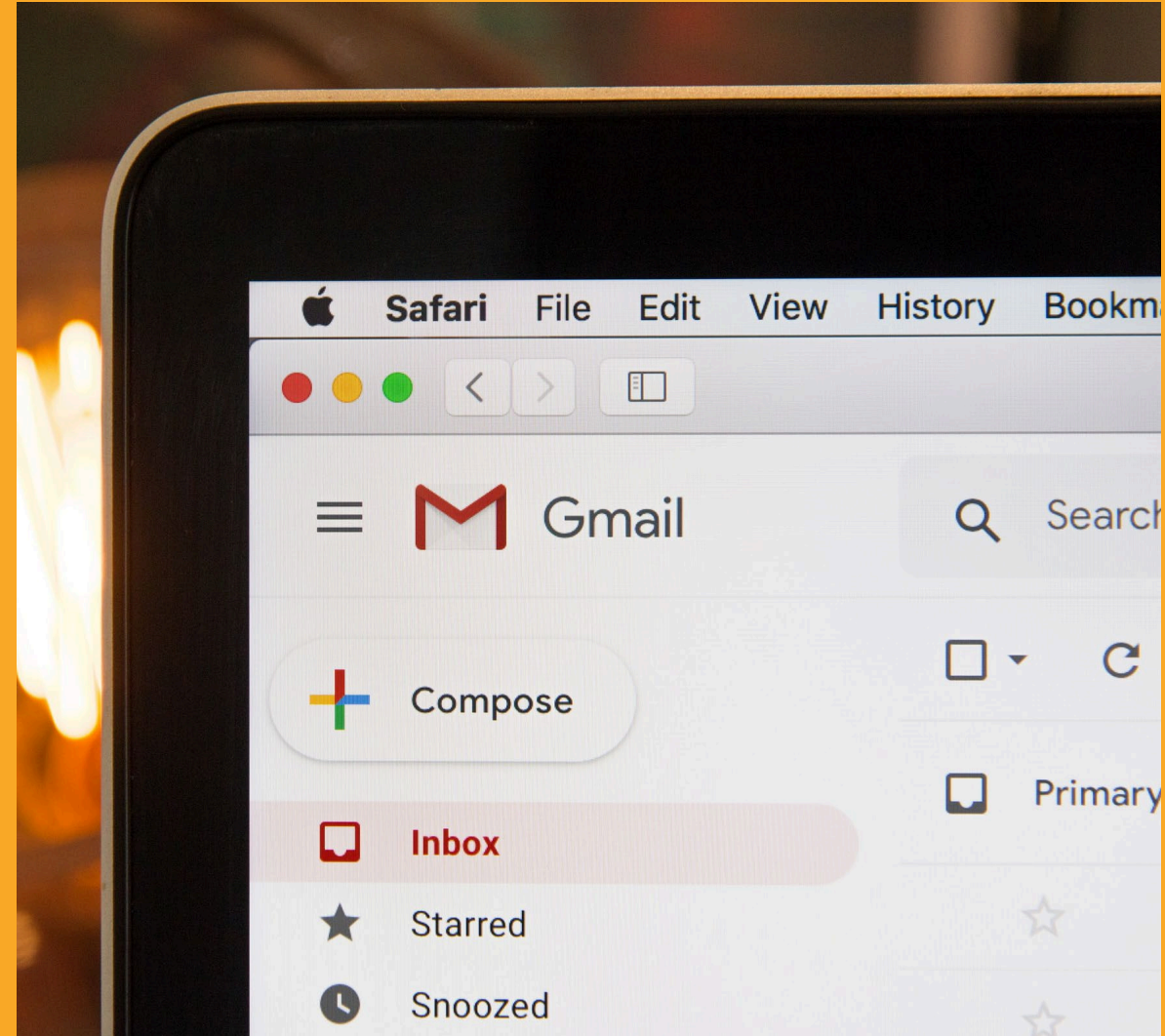
Define how to plan future learning activities and how to communicate them



Use digital technologies to enable learners and parents to remain updated on progress and make informed choices on future learning priorities, optional subjects or future studies

e-mails as best "internal" communication channels

raise the quantity and quality of sharing educational information





6.5 Empowering Learners



6.5.1 Accessibility and inclusion

Be able to address accessibility and inclusion



A disruptive aspect of technologies in the educational field is that of being able to promote **inclusive experiences**, even for **students with special needs** for adaptive educational paths



tech-aided education



equality



projects and programs that do not leave economically disadvantaged students behind





Encourage accessibility and inclusion to the digital technologies



Understand how access to digital technology creates divides and how students' social and economic conditions have an impact on the way technology is used



Ensure that all students have access to the digital technologies that they use





Encourage accessibility and inclusion to the digital technologies

The role of the teacher in this case is a key element, above all for his ability to **"anticipate"** any problems, avoiding **structuring divisive paths**

- **36%** of Central and Eastern Europe is unconnected
- **42% school-age children** in Eastern Europe are unconnected at home (UNICEF, 2020)
- Europe is the region with the **lowest fixed broadband prices**
- **4G penetration** in Europe is growing but with gaps
- women, make up **65%** of European employees but are **only 17% of the European ICT workforce**

(source ITU International Telecommunication Union - 2020)





Use and implement digital technologies to support inclusion and accessibility



Be aware that the compensatory digital technologies can be used for learners' in need of special support (e.g. learners with physical or mental constraints; learners with special needs)

- Speech synthesis
- Video-writing software
- OCR - Optical Character Recognition
- Speech recognition
- PDF-editors
- eBooks and audio books
- Technologies for math

TECH-COMPESATORY TOOLS





6.6 Facilitating learners' digital competences



6.6.1 Information and media literacy

Be able to implement activities fostering learners' information and media literacy



Searching for information online is a far from trivial process. Over time, the **complexification** of media platforms has made **scientific and historical documentation** particularly difficult



basic skills



fact-checking





Use and implement digital technologies to support inclusion and accessibility



Implement learning activities in which learners use digital technologies for information retrieval

Boolean operators

AND

OR

NOT

Non-Boolean operators (some of them)

@: search in a social media

\$: look up price

#: look for hashtags

"": search for an exact match

related: search for related sites

info: get details on a site





Describe how to teach to learners how to correctly search information



Teach learners how to find information, how to access its reliability, how to compare and combine information from different sources

- fact-checking is not just a technical skill
- even the context of peers play a notable role
- notions of photo-videographic composition



6.6.3 Digital content creation

Be able to implement activities fostering digital content creation by learners



For a second time during this lesson, we will recall the need to "get your hands on it", moving from theory to practice: "digital" is not only a tool in fact, but it can also become a goal



making students produce digital or digital-ready outputs



innovation and involvement





Define how to implement teaching activities for the creation of digital content



Implement learning activities in which learners use digital technologies to produce digital content, e.g. in the form of text, photos, other images, videos, etc.

Didactic activities aimed at digital output:

 Coverage - outputs that document a didactic process

 Creation - optimal integration of tech into teaching dynamics





Describe how to define the publishing tools to the learners



Encourage learners to publish and share their digital productions

Developing together

- pages,
- groups,
- shared web publications,

to give a social perspective to the activities of the class-group





Thanks to everyone