



# Digital Push for Creative Transformation



# IO 1.3

## Digital Competences for CCS guidelines



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## I. Project description

The project "Digital Push for Creative Transformation" (DPCT) aims to create a sustainable and efficient education program dedicated to young people with low digital skills involved in the Cultural and Creative Sectors (CCS).

DPCT will enhance awareness of the need for training in digital skills for the creative industries and will focus on openness and inclusiveness in education. DPCT will involve the use and development of an open online course on Digital Skills and Social Inclusion for the CCS, built as a Massive Open Online Course (MOOC), an innovative youth educational program available in English and all partners languages as Open Education Resource (OER) and accessible to youth with limited digital skills. DPCT will provide young people with high level digital skills which are required to enable them to develop their capacity to operate across a range of platforms and take advantage of new and emerging markets that without digital skills cannot be approached. DPCT will help young people acquire a wider set of digital skills, knowledge and competences, relevant for the labour market and their active participation in society.

DPCT will see the realization of four outputs, five multiplier events, four transnational meetings, one blended mobility and many dissemination activities.

In particular, DPCT partners will realize the following outputs:

- **IO1 - Digital Competences for CCS guidelines composed by the following documents:**
  - ◆ IO1.1 Conceptual Framework of Digital Competences in CCS
  - ◆ IO1.2 DPCT Survey Report for young people working in Cultural and Creative Sectors (CCS) - European and National research on digital competence validation
  - ◆ IO1.3 Digital Competences for CCS guidelines
- **IO2 - Online platform**
- **IO3 - MOOC courses**
- **IO4 - Position Paper on training investments and OERs for raising digital skills in CCS**

DPCT will have a positive impact on young people working in CCS with low digital skills. Gaining digital skills through the MOOC course (IO3) will improve their career opportunities by providing access to new digital tools, and adding the possibility of new forms of digital expression to their work.

## II. Introduction to Digital Competences for CCS guidelines

The present document “Digital Competences for CCS guidelines” outlines the theoretical framework that will be used to develop the DPCT MOOC courses, integrating the results of the two researches carried out by the partner consortium in IO1.1 and IO1.2, namely the “Conceptual Framework for Digital Competences for CCS” and the “DPCT Survey Report for young people working in cultural and creative sectors (CCS)”.

From one hand, the “Conceptual Framework for Digital Competences for CCS” aimed at sharing research materials and reflections on the development of Digital Competences in CCS for the promotion of transversal skills and social inclusion. This document emphasized the problems related to the development of digital resources and their integration into various cultural environments and in the CCS education area. The research aimed to identify the digital competences most promoted in CCS youth education contexts and to consolidate the theoretical basis of the DPCT project. Moreover, together with the findings of IO1.2, it will help the project consortium to select the content and digital competences to be promoted in the project online MOOC courses.

On the other hand, the “DPCT Survey Report for young people working in cultural and creative sectors (CCS)” aimed to present the results of the research phase of the KA2 project “Digital Push for Creative Transformation”. An online questionnaire survey was launched in the five project partner countries which aimed to define the most required digital skills for young people with low digital skills working in CCS as well as the most effective teaching and learning tools and methods for young people digital skills and transverse skills promotion. The survey was filled out by a total of 312 young people across the five partner countries, namely Latvia, Poland, Italy, Bulgaria and Spain, from June 20th, 2021 to August 15th, 2021.

Finally, the present document “Digital Competences for CCS guidelines” will aim to summarize the findings of the two previous researches, outlining the digital competences more relevant to the CCS, the skills needed at different work levels and cultural areas as well as the most promising pedagogical and technology-enhanced learning concepts, approaches and methods in achieving better digital skills for CCS young people that should be addressed by the DPCT MOOC, according to the specific participants needs.

### III. Defining Cultural and Creative Sectors

Generally, the Cultural and Creative Sectors are those areas of coordinated movement that have as their fundamental target the creation or proliferation, the advancement, appropriation or commercialization of products, administrations and exercises of content derived from social, imaginative or legacy starting points. Cultural and creative sectors are all sectors whose activities are based on cultural values, or other artistic individual or collective creative expressions.

According to the definition described in the Creative Europe Programme (EU Regulation No 1295/2013 on the Creative Europe Programme): “All sectors whose activities are based on cultural values and/or artistic and other creative expressions, whether those activities are market- or non-market-oriented, whatever the type of structure that carries them out, and irrespective of how that structure is financed. Those activities include the development, the creation, the production, the dissemination and the preservation of goods and services which embody cultural, artistic or other creative expressions, as well as related functions such as education or management. **The cultural and creative sectors include inter alia architecture, archives, libraries and museums, artistic crafts, audiovisual (including film, television, video games and multimedia), tangible and intangible cultural heritage, design, festivals, music, literature, performing arts, publishing, radio and visual arts”.**

The formally recognised individual cultural and creative sectors, also included in the definition of the term CCS, are the following ones:

1. Architecture
2. Museum, libraries and archives
3. Artistic crafts
4. Audiovisual
5. Design
6. Festivals
7. Music
8. Literature and Publishing
9. Performing and visual art

Those regional activities concentrate on potential building, professionalization and ability advancement, information gathering to get it superior to the sections, as well as trade possibilities. They will construct and additional EU-driven activities proceed as of now carried out over the past long period.

For more information about each of the sectors, please refer to the DPCT document, IO1.1 Conceptual Framework of Digital Competences in CCS.

It's important to underline that there is a difference between Cultural and creative industries (CCI) and Cultural and creative sectors (CCS). The term “cultural and creative industries” compasses a broad and powerful range of disciplines or sub-sectors with country-specific features. These disciplines are continually developing and cooperating, so it is useless to give clear definitions and explain ideas.

The term cultural industries have been around for more than 70 years. And while the cultural and creative sectors focus more on the activities within themselves, rather than on the financial side behind the ventures, the cultural and creative industries are more oriented towards the further product stages such as the production processes of the manufacturing operations. The definitions of the CCI, which are adopted on a national level, strongly depend on both the country's needs and the scope, which is defined within the state's initiatives for development and its policy evaluations.

In addition, there is regularly an inquiry regarding the limits between inventive ventures and the comparative term of creative industries. Creative industries are best depicted as a subordinate area of the inventive enterprises. Creative industries incorporate enterprises that emphasis social travel industry and legacy, exhibition halls and libraries, sports and open-air activities, and an assortment of 'lifestyle' exercises that seemingly range from nearby pet shows to a large group of specialist concerns. Accordingly, creative industries are more worried about conveying different sorts of significant worth—including social abundance and social riches—as opposed to principally offering financial benefit.

#### **IV. Digital transformation and the role of digital competences in CCS**

Undoubtedly, digital transformation has also reached the cultural and creative sectors. The most commonly known example is probably the music industry which has undergone fundamental change from records and CDs to digital formats. Moreover, new tools have been developed to create products, such as a graphic program that is used to create a design or a drone that shoots a film from above, as well the possibility for creation of basis for creative products, such as computer games. Specifically, the games industry is an example of the important potential of digitalization to interconnect the different cultural areas, such as film, video, music, text or even animation.

On one hand, CCS have understood the potential of digitalization and started using many of the opportunities offered to them, but on the other hand, the gaps in digital literacy within the sectors and the individuals have become more visible. In particular, in the wake of the global pandemic, the importance of digital skills has never been so evident, nor so urgent. The pandemic has, however, heightened the lack of necessary digital skills between many people within the CCS, thus, they weren't well-equipped to move into a

more digital world of work and catch the transformation that the pandemic has accelerated.

The fast-changing and growing tendencies of creation, production, reproduction, distribution, promotion, marketing and consumption, the development of the ICT sector, the new characteristics of the audience, and the different values and preferences in the global market have dramatically transformed the field of CCS. Although traditionally it is a non-competitive sector, it is possible to observe distinct tendencies of competition and many inequalities appear in the creative sphere, while the access to the latest facilities cannot ensure either that they will be used with an optimal, efficient approach and care. From professional and literacy skills to business and client management a huge variety of competencies is required in this intensive environment in order to successfully participate and be a part of this community.

Apart from the closure of public events, concerts, exhibitions, performances, the saturated or monopolized communication market and further consequences of the lockdown, it is also a general problem for many initiatives to reach their potential audience, find the necessary equipment, experts or support they need, and the quarantine has pointed out these structural concerns that had already been existing. This phenomenon shows that besides the creative skills one possesses, it is at least as important as the proper qualities to provide a better environment and a wider scale of chances to the relevant groups, and beyond using digital tools or social platforms, there should be other solutions to combat inequalities and reduce the damage appeared in this sector (Bertuzzi, 2021).

However, the digital technologies and ICT facilities are not satisfying on their own. First of all, they need to be understood for their optimal use in order to collaborate with the creative sector instead of challenging it, and it is necessary to develop a new methodology for studying and acquiring digital skills as well as taking into consideration the importance of cultural- and ethical awareness, lifelong learning, flexibility and self-direction. Besides supporting creativity and its manifestations, the digital approach can also contribute to problem solving, critical thinking, information management and communication practices in case of responsible and competent users. From one hand, it should be discussed how and what kind of technological developments are needed in the future that could assist creative ideas better, but on the other hand, the distribution of these resources and the proper training and preparation for the society are also needed in order to harmonize the distinct tools and ambitions (Laar & Haan, 2019).

The European Union has already launched dozens of plans to promote culture and creativity both on the national and the European levels, which serve as a framework connecting and harmonizing the local challenges. However, the recent crisis has also demonstrated the huge need for developing this particular area, which might be more difficult to study compared to other social, political or economic sectors due to its immaterial, fluent and frequently-changing features (Bertuzzi, 2021).

In addition, we should also identify the opportunities which COVID-19 provides and put efforts into reaping potential benefits. As a result of the crisis, many private enterprises in the CCS have had to digitalise a substantive part of their activities. It has led to working, learning, performing online theatre, organising online concerts, providing access to e-libraries and many more. This could be an indispensable opportunity to further the connection between the EU Digital Strategy and the European Green Deal. Therefore, the digital strategy could be expanded to include measures to support businesses in their digital transformation triggered in response to the crisis. Measures could include financial compensation for such enterprises during a transitional period over which they could complete their digital transformation. The compensation could be tied with the level of decarbonisation resulting from the transformation. Consequently, an updated version of the digital strategy could also form a part of the post-COVID recovery package.

There are several key trends that are reshaping the CCS, inspiring new business models and changing the ways of working. Specifically, during COVID-19 the CCS content was increasingly consumed digitally, creating a new form of distribution and consumption. However, although now people have an opportunity to attend cultural events in person, following the specific health measures in the country, the year of online engagement definitely transformed people's digital behaviours. A [recent report](#) released by Culture Restart about the interest in digital engagement post-pandemic shows that "41 percent of the respondents are keen on future participation, with those under 35 showing a remarkably higher interest. And while they might be less likely to engage, more than half of respondents said if they were unable to attend an in-person event, they would consider the option to participate online."

Finally, technology is helping to ease global disruptions across many if not all sectors. For instance, massive digitalisation coupled with emerging technologies, such as virtual and augmented realities, can create new forms of cultural experience, dissemination and new business models with market potential. With the lockdown, many public and private providers moved content on-line for free to keep audiences engaged and satisfy the sharply increased demand for cultural content. While the provision of free and digitally mediated cultural content is not sustainable over time, it has opened the door to many future innovations. To capitalize on them, there is a need to address the digital skills shortages within the sector and improve digital access beyond large metropolitan areas, with the additional consideration that digital access does not replace a live cultural experience or all the jobs that go with it.

## V. Digital Competences for young people working in CCS

In order to analyse the Digital Competences of young people working in the Cultural and Creative Sectors, the project consortium used the latest version of the Digital Competence Framework for Citizens (DigComp 2.1).

The European Digital Competence Framework for Citizens, also known as DigComp, offers a tool to improve citizens' digital competence. DigComp was developed by the Joint Research Centre as a scientific project and with intensive consultation of stakeholders, and it was first published in 2013 as reference for the development and strategic planning of digital competence initiatives both at European and Member State level. The latest version is labelled DigComp 2.1 and it focuses on expanding the initial three proficiency levels to a more fine-grained eight level description as well as providing examples of use for these eight levels.

Following, these are the 5 competence areas, which are composed by 21 competences and respective 8 proficiency level:

### 1. Information and data literacy



### 2. Communication and collaboration



### 3. Digital content creation



#### 4. Safety



- 4.1 Protecting devices**
- 4.2 Protecting personal data and privacy**
- 4.3 Protecting health and well-being**
- 4.4 Protecting the environment**

#### 5. Problem solving



- 5.1 Solving technical problems**
- 5.2 Identifying needs and technological responses**
- 5.3 Creatively using digital technologies**
- 5.4 Identifying digital competence gaps**

In addition, each competence has 8 proficiency levels: Foundation – 1 and 2; Intermediate – 3 and 4; Advanced – 5 and 6; and Highly specialized – 7 and 8.

More information and detailed explanation about each level can be found in the following [page](#).

The DigComp 2.1 framework defines the scope and the components of digital competence for citizens in a clear way, providing an overall, complete and shared understanding of what digital competence is, and offering an updated vocabulary based on consensus building with multiple stakeholders. Therefore, guiding our KA2 Strategic Partnership “Digital Push for Creative Transformation” are the 5 areas of DigComp 2.1.

In order to identify the digital competences most needed by young people working in the CCS, project partners have carefully analysed each of the 5 areas, identifying the digital competences most promoted in the CCS youth education contexts as well as the skills most needed at the different working levels. Moreover, this research was supported by the findings of the “European and National research of digital competence validation” (IO1.2), the online survey carried out by project partners in the five partner countries.

Before starting with the overview of the research findings, let’s briefly describe what Digital Competence is.

## DIGITAL COMPETENCE



**According to the European Commission digital competence is one of the eight key competences and refers to the confident and critical usage of, and engagement with, digital technologies for learning, at work, and for participation in society.**

Some of the essential knowledge, skills and attitudes related to this competence are the following ones<sup>1</sup>:

- Individuals should understand how digital technologies can support communication, creativity and innovation, and be aware of their opportunities, limitations, effects and risks.
- They should understand the general principles, mechanisms and logic underlying evolving digital technologies and know the basic function and use of different devices, software, and networks.
- Individuals should take a critical approach to the validity, reliability and impact of information and data made available by digital means and be aware of the legal and ethical principles involved in engaging with digital technologies.
- Individuals should be able to use digital technologies to support their active citizenship and social inclusion, collaboration with others, and creativity towards personal, social or commercial goals.
- Skills include the ability to use, access, filter, evaluate, create, program and share digital content. Individuals should be able to manage and protect information, content, data, and digital identities, as well as recognise and effectively engage with software, devices, artificial intelligence or robots.
- Engagement with digital technologies and content requires a reflective and critical, yet curious, open-minded and forward-looking attitude to their evolution. It also requires an ethical, safe and responsible approach to the use of these tools.



**“Digital competence involves the confident and critical use of Information Society Technology for work, leisure, and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet.”**  
**(European Commission, 2007, p. 7).**

There is no doubt that digital skills are crucial for young people working in CCS. With regards to the **“Information and data literacy”**, “browsing, searching, data filtering,

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<sup>1</sup> <https://kivinen.wordpress.com/2018/09/15/a-short-introduction-to-the-new-key-competences-for-lifelong-learning/>

information and digital content” is the most required competence to be improved by DPCT respondents selected by 151 people (=48.4%). Indeed, this is highly important because it is a skill or set of habits that can be used in service to greater mission or artistic pursuit. The development of software, systems, and infrastructure for data collection it’s not the only challenge for the CCS. Equally important is the need to foster the motivation, understanding, and skills required to use that data proactively and effectively among artistic and executive leadership, staff, artists, boards, funders, and civic leaders. Only when young people are able to search and filter data, information and digital content, they can fully exploit the benefits of the digital environment.

However, young people should be able to evaluate the information found. They should know how to measure the potential value of the information and the actual usefulness of the materials - motivation, impact, achievability, instant learning, etc. On the other hand, young people need to know how to critically assess the credibility and reliability of sources of data, information and digital content.

Although the DPCT survey results show that data doesn’t look so important for survey respondents, we believe that knowing how to assess and understand available data is crucial because knowing how to get the data, through electronic or other sources is very important. Using effective information and data means being able to find different problem-solving approaches and search for the best practices and tools for supporting your own work. Moreover, data can be analyzed or used in an effort to gain knowledge or make decisions, and can be crucial for young people's professional and personal development in the CCS. Therefore, DPCT MOOC courses will include solid information about the importance of data literacy, so youngsters can understand not only how to browse and filter data, but also how to manage and evaluate it. They need to be always updated and be able to adapt quickly to a modern business culture, where digital transformation and innovation are leading, otherwise youngsters may fall behind simply because they don’t have the agility and awareness to embrace the new waves of modern technology.

According to DPCT survey results, the most needed skill to be improved in the category **“Communication and collaboration”** is “collaborating through digital technologies” pointed out by 128 respondents (=41.03%). Following, with almost similar points are the following three competences: “sharing through digital technologies” (105 respondents), “interacting through digital technologies” (104 respondents), and “engaging through digital technologies” (100 respondents).

Increasingly, arts organizations, artists, choreographers, and designers are collaborating across greater distances. Improved communication, increased mobility, and a heightened awareness of global opportunities have facilitated partnerships around the globe. In this environment, artistic collaboration depends on new technologies to coordinate the art-making process and create digital shared space that can be accessed from around the world. However, it is important to note that although online collaboration is a key innovation, it does not replace face to face collaboration. Online collaboration is good at solving very specific kinds of problems such as time problems

creating the benefit of 24/7 production cycles, distance problems, enabling newly diverse teams, and communication problems, letting people work together in ways that tap into a broader set of skills and capacities<sup>2</sup>.

In addition, young people working in the CCS should learn how to use digital technology because it can help them find inspiration for their work. By implementing new digital tools, they can enhance the creative process towards innovative and unexplored paths as well as connect and collaborate with other artists. For being competitive in today's increased digital market, they need to have advanced collaborative and communicative skills, knowing well how to manage their identity and show the best of their work to the public.

DPCT MOOC courses will offer young people suitable materials that can help them create new genres of creative work, distribute their work in new formats as well as help young people in CCS connect with one another. Knowing how to interact in the digital environment also means to find ways to promote themselves and their work, find partners, investors, new markets, etc. Young people will be offered information on how to take care of their digital presence and digital reputation, being able to maintain and manage it in a proper way.

Regarding the third category **“Digital content creation”** the most needed competence to improve as indicated by the survey results is “integrating and re-elaborating digital content”, selected by 152 respondents (=48.72%). Nowadays, artists don't use technological innovations only as assistants in their creative process. Many artists and art professionals are transforming the art world by leveraging these powerful technologies and tools as an art and design medium, allowing them to create striking, immersive, and highly engaging art pieces that are new and multi-disciplinary mixed media art and installations. The continued digital evolution brings us to the point that understanding how to modify, refine, improve and integrate information and content into an existing body of knowledge to create new, original and relevant content and knowledge is crucial for young people working in the CCS in order to be competitive in the market. They need to be ready to re-elaborate and integrate their previous work with brand new techniques, therefore, such information will be provided for them in the DPCT online materials.

However, equally important is that young people know how to sell and protect their own work, being aware of copyright and licensing. According to the DPCT survey results, 227 respondents (=72.76%) do not know about it. Since digital technology is greatly impacting copyright and licensing, and new licensing practices appear to reflect the development of collaborative creativity, it is not just important for youth to have permission from the copyright owners and pay for the right to reuse content for the benefit of their business; it is a legal requirement too. Copyright is a form of Intellectual Property Law and gives copyright owners exclusive rights to deal with their works in

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<https://static1.squarespace.com/static/51d98be2e4b05a25fc200cbc/t/560ca720e4b0e4ad4911bb21/1443669792319/How+Technology+Can+Support+Artistic+Collaborations+.pdf>

certain ways. In addition, artists could be seen as owners of their work, where copyright gives them the right to make and sell copies, distribute those copies, make new works, and publicly perform the work. Consequently, knowing how copyright and license apply to data, information and digital content is very important for young people working in CCS. In addition, such information will be provided within the project e-learning courses that the consortium will elaborate as well as the topic will be raised during DPCT events organized in each partner country.

With regards to the category **“Safety”**, the most selected competence “protecting health and well-being” was chosen by 184 respondents (=58.97%). The survey results show that although young people are concerned about their health and well-being while using digital technologies, they do not know how to protect themselves. Therefore, young people should be offered support on how to effectively cope with online risks and deal with their negative consequences. Since young people see increased sensitivity to social evaluation, identity exploration, and heightened need for peer connections and approval, they should be offered appropriate learning materials that can support their online resilience and help them understand which social media engagements amplify or mitigate their mental health risks. Special attention should be paid to young people from minority backgrounds, who experience discrimination, marginalization, instability, poverty, and trauma. It is important to underscore that some of the most vulnerable youth have the most to gain from online information and support for mental health.

Digital safety is very important topic because with more users accessing on the Internet, we all need to be aware of the nature of possible threats that we could encounter whilst engaging in online activities. These include security threats, protecting and managing personal data, online reputation, avoiding harmful or illegal content, etc. Only when the risks that are inherently involved with using technology are well managed, the Internet can be enjoyed free from harm and bring enormous benefits. However, when searching on this topic in Internet, project partners found many examples of young artists who experienced online threats and unfortunately, not for all of them there was a happy end. Moreover, within the research that was done, they did not find specific well-structured guidelines for young people working in the CCS on how to protect their devices, personal data and identity. Many times young people neither think about all the information they are sharing online and the consequences this could have on their personal or professional path. Therefore, young people working in CCS should be offered an opportunity to know how to protect their personal devices, data and privacy.

Looking at the final category **“Problem solving”** there were three answers which received almost similar scores. Following, “creatively using digital technologies” (133 respondents), “solving technical problems” (131 respondents) and “identifying needs and technological responses” (126 respondents). As the digital world gains pace, young people working in the CCS are introduced to more challenges in their daily work. They need to explore different ways on how techniques and digital tools can be used, as well as to find effective resolutions to problems. They need to develop solving skills and explore techniques like design thinking. Moreover, as mentioned previously in this

document, artists need to understand the importance of using data to make more informed decisions and find solutions to problems.

The role of young people working in the CCS who use digital tools and technologies for the creation of knowledge and innovative processes and products is vital for our society. Innovation today doesn't solely rely on the technology itself, but mainly on how it interacts with humanity, solving their problems, needs or challenges. Innovation is driven by human creativity, that is that spontaneous act pushed by intrinsic motivation, through which the individual can improve itself and his world. Moreover, it is possible to stimulate creative thinking, both on an individual and group level, by using valuable techniques and methodologies, with the aim of promoting and generating creativity, breaking preestablished patterns, stimulating the imagination and improving the conditions in which the creative idea is produced. Therefore, online materials for solving technical problems and the creative use of digital technologies will be included in DPCT MOOC courses.

## **VI. Best methods and pedagogies for achieving better digital competences for young people with limited digital skills involved in CCS**

Technology is everywhere around us and nearly all future jobs require at least basic digital skills. Indeed, since 90% of the jobs require some sort of digital experience nowadays, EU documents like the European Skills Agenda set the objective of reaching 70% in the adult population for those who have digital skills. EU principles like the five pillars of the Digital Compass Framework focus on specific digital targets that should be implemented in the member states, and the Digital Education Action Plan has also been adopted for similar goals. The pandemic has made it clear that there are much more aspects to improve within digital communication - not just in terms of equipment, security or communication standards, but further practices and approaches, which can avoid a potential future crisis and promote the cultural contributions of the wider society.

Digital competence has become a key conception in debates on the kind of skills and understanding learners need. However, the digital technologies and ICT facilities are not satisfying on their own. First of all, they need to be understood for their optimal use in order to collaborate with the creative sector instead of challenging it, and it is necessary to develop a new methodology for studying and acquiring digital skills as well as taking into consideration the importance of cultural- and ethical awareness, lifelong learning, flexibility and self-direction.

One of the latest educational trends is online or distance learning. Online learning has developed new horizons of possibility at once promising access for new learners, access to learning taking place from non-traditional environments and opportunities for new

connections and networks across greater distances. Online learning provides significant flexibility and convenience for learners, because they can participate anywhere they have access to a computer or mobile advice and at different times. Moreover, online education is not only a matter of accessing learning material at a distance, it is also a prime opportunity to meet people from all over the world who share the same interests and may even open doors for youngsters that would have remained closed otherwise. Taking online courses can expand their networking opportunities and may even help them find international friends and partners thanks to the connections they have made online.

Another benefit of the online courses is that they are easier to update. This alone ensures that online education is always relevant and that if young people educate themselves through Internet courses, they are less at risk of falling behind simply because the information they access is always up to date. This is especially relevant when talking about digital skills and their regulation update, since in the era we live it is more than necessary to keep up to date with technology.

However, let's not forget that while online learning may open up opportunities also for some marginalised people, some learners may require financial support to access technologies and may experience technical difficulties with technology. Lack of practical support or skills development opportunities to access online learning can be an additional barrier to learning even for those with access to the appropriate equipment. This is particularly of relevance for disabled learners who may require assisted technology to engage in online spaces, support to understand online safety and social rules.

Another common issue that can arise in online learning is the lack of motivation and engagement, because connecting via webcam isn't always easy and takes creativity to keep the learner's brains stimulated. With the home environment being surrounded by potential distractions, keeping learners engaged, motivated, and interested in the online courses can be one of the biggest challenges of online learning and teaching. By definition, learner engagement "refers to the degree of attention, curiosity, interest, optimism, and passion that learners show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education." Engagement is not the same as clicking or interacting with a screen.

The effective online teaching includes the use of audio and visual multimedia. Audiovisual education or multimedia-based education is instruction where particular attention is paid to the audio and visual presentation of the material with the goal of improving comprehension and retention.

According to the Webster dictionary, audio-visual aids are defined as "training or educational materials directed at both the senses of hearing and the sense of sight, films, recordings, photographs, etc. used in classroom instructions, library collections or the likes". There are various types of audiovisual materials ranging from filmstrips, microforms, slides, projected opaque materials, tape recording and flashcards. In the

current digital world, audiovisual aids have grown exponentially with several multimedia such as educational DVDs, PowerPoint, television educational series, YouTube, and other online materials. The use of audio-visual provides intrinsic motivation to learners by peaking their curiosity and stimulating their interests in the subjects. Moreover, it improves learner's critical and analytical thinking. It helps to remove abstract concepts through visual presentation. However, improper and unplanned use of these aids can have a negative effect on the learning outcome. Therefore, online courses should be properly done in order to maximize the benefits of using these aids.

Another very popular method for engaging learners in the online environment is the use of gamification, particularly the use of quizzes. Quiz platforms provide a stage in which all learners are visibly working on the same task at the same time. Assigning certain learners certain quizzes to meet their learning needs, or custom-made feedback based on their answers give that personal touch. Quizzes are interactive and fun to play. They are based on a scientifically proven method of learning (called Active Recall). Active Recall embeds knowledge in the long-term memory more effectively than passive learning. Moreover, quiz platforms give learners complete freedom to learn, how, where, when and with who they want. For example, if e-learning units include in the end a quiz to check what has been learned as well as learners are provided with ongoing record on their quiz scores in their personal accounts, they can be more stimulated to keep following the entire online course and complete it until the end.

Since we are talking about online learning methods, MOOCs should definitely be also mentioned. MOOC stands for Massive Open Online Course. These courses are hosted on a portal. MOOCs have a lot of reading material, lectures, and videos so users can refer to all of them to enhance their learning. MOOCs are all about learning at your own pace. The learners can log on to the portal whenever they wish and access the course. The development of MOOCs is made possible by the online exchange of information by experts through social networking platforms.

In addition, DPCT survey results show that “Exclusively online learning (e.g. MOOCs, webinars)” was the most preferred kind of training selected by 118 respondents.

However, although respondents found MOOC courses suitable for learning, in total 304 of them said that they have never heard about courses dedicated to young people in CCS in their countries. Following, survey respondents were asked if they would have an opportunity, are they willing to participate in such courses, and if yes to what extent. According to the answers, 146 respondents (=46.79%) are “Very interested”, while 87 respondents (=27.88%) are “Somewhat”.

In addition, youngsters were asked what are the most valued elements in a training course, and between the most chosen options were selected tools or practical products (books, curricula, e-learning modules), which proved one more time that for many young people such online materials are very appreciated.

However, for designing effective e-learning courses and experience for young people, it is crucial to understand what learning content type is most suitable for the target group.

E-learning curriculum should be relevant and specific to the learner's needs, roles and responsibilities in professional life. This kind of content like skills, knowledge and all kinds of learning media provided to keep the focus on learner's end. Instructional methods and techniques should be used creatively to develop an engaging and motivating learning experience. It depends upon developing the storyboard that has to be based on a very engaging way of learning programs. Frequent learner interaction is needed to sustain attention and promote learning and scenario-based learning is a good example for this kind of learning media.

## VII. Conclusion

The present document "Digital Competences for CCS guidelines" outlined the theoretical framework that will be used to develop the DPCT MOOC courses, integrating the results of the two researches carried out by the partner consortium in IO1.1 and IO1.2, namely the "Conceptual Framework for Digital Competences for CCS" and the "DPCT Survey Report for young people working in cultural and creative sectors (CCS)".

The results described in the present document will be used for the construction, implementation and evaluation of online paths, through the MOOC courses, aimed at promoting digital skills and competences, transverse competences and social inclusion among young people involved in CCS. This document aims to support not only project consortium who thanks to the data provided in this document is now able to design and create appropriate learning materials, but also all youth workers who are interested in the promotion of digital skills for youths in the field of CCS as well as young people, who are independent workers of CCS interested in acquiring relevant digital skills. In addition, the following document is also translated in all partner languages, namely, Latvian, Spanish, Italian, Bulgarian and Polish. The translated versions can be found in the project website: <https://digitalpush.eu/>