Council conclusions on digital education in Europe's knowledge societies

(2020/C 415/10)

THE COUNCIL OF THE EUROPEAN UNION,

TAKING INTO CONSIDERATION:

1. The political background as set out in the Annex,

HIGHLIGHTING THAT:

- High-quality and inclusive education and training is a European strength based on democratic values and the idea of enlightenment. The widespread distribution of digital technologies and access to the internet open up new possibilities and challenges.
- 3. The digital transformation of our knowledge societies is accelerating and there is an increasing availability of digital services and data. This includes a changing labour market as well as new job profiles and a demand for digital competences (¹) in the context of the 21st century skills. The growing influence of artificial intelligence (²) will amplify the effects of the digital transformation of our knowledge societies in a long-term perspective, and can offer promising new opportunities for learning, teaching and training in the future. High-quality and inclusive education and training is key to empowering all individuals and citizens to understand, to take part in and to shape these developments.
- 4. The COVID-19 pandemic and its ongoing impact on education and training systems and institutions in Europe underlines the urgent need for a better understanding and a continuous evaluation of the uses, benefits and challenges of digital education technologies (³), and of the levels of digital competences, also in the context of lifelong learning.
- 5. The COVID-19 pandemic has further emphasised the urgent need for a holistic approach to digital education. In order to meet current demands, high-quality and inclusive education and training entails digital and non-digital forms of learning and teaching, including approaches such as blended learning (4) and distance learning (5). This offers a chance to enhance learner-centred education and training according to the specific needs of individuals.
- 6. Digital education (6) is a prerequisite for helping to shape the digital transformation, pursuing continuing education and training and lifelong learning and enabling high-quality and inclusive education and training for all. Therefore, it is important to take its societal dimension into account and to understand it as part of a profound cultural transformation. This cultural transformation lays the foundation for enabling all individuals and citizens to use data, digital technologies and infrastructures confidently and safely, while duly respecting data protection rules, and for enabling them to participate actively in political decisions, societal developments and the labour market.
- (¹) As stated in the Annex of the Council Recommendation on key competences for lifelong learning (2018/C 189/01), digital competence involves the confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society. It includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital well-being and competences related to cybersecurity), intellectual property related questions, problem solving and critical thinking.
- (2) Artificial intelligence (AI) refers to IT systems that display intelligent behaviour by analysing their environment and taking actions with some degree of autonomy to achieve specific goals.
- (3) For the purpose of these conclusions, digital education technologies are defined as technologies that allow the practice of facilitating, learning and improving learners' performance by creating, using and managing appropriate technological processes and resources.
- (4) In this context, blended learning is understood as a pedagogical approach of mixing face-to-face and online learning, with some degree of learner control over time, place, path and pace.
- (5) For the purpose of these conclusions, distance learning describes a mode of learning that allows teaching and learning activities to be organised and delivered at distance (e.g. by using radio, TV, internet or electronic resources).
- (6) Digital education comprises two different but complementary perspectives: the pedagogical use of digital technologies to support and enhance teaching, learning and assessment and the development of digital competences by learners and education and training staff.

- 7. Digital education should be learner-centred and support all individuals and citizens to develop their personality and skills confidently, freely and responsibly. As an integral part of high-quality and inclusive education and training, digital education should commit to the principle of integrity and trust in its quality. It should also contribute to better accessibility of educational content and pedagogies, to greater social inclusion, as well as to the better acquisition of competences, promoting educational success for all. Digital education should take into consideration emerging technologies, such as artificial intelligence, and their safe, pedagogically sound and ethical application.
- 8. Digital education should also consider the wellbeing of learners, teachers, trainers and educators, as well as of parents and carers, for instance with regard to safe learning environments. It also should contribute to facilitating easier access to information for all citizens and to promoting active cultural, economic and social participation in Europe's knowledge societies.
- 9. Digital education should contribute to the development of an awareness of citizenship, including digital citizenship (7) by fostering citizenship competences. These include a critical approach to information, enabling citizens to navigate in a digital world and to develop an understanding of the basic values of democracy and freedom of expression.
- 10. Every European should be empowered to engage actively in the digital transformation of society and benefit from suitable, accessible and safe learning environments. The human right to quality and inclusive education, training and lifelong learning, as set out in the European Pillar of Social Rights and protected by the Charter of Fundamental Rights of the European Union, must be guaranteed at all times.
- 11. In order to close the digital gender divide in ICT related fields and STEM, a gender-sensitive approach in all types and levels of education and training is crucial.
- 12. Access to digitally supported high-quality and inclusive education and training opportunities is crucial. Notwithstanding the crucial role and benefits of face-to-face learning and teaching formats, access to high-quality and inclusive education and training with and by means of digital education technologies are prerequisites for the future viability of Europe's knowledge societies as well as for a European innovation system that enables green and digital transformation, provides sustainable growth, jobs and opportunities and promotes personal development.
- 13. A strong Europe is based on a culture of common values, sharing, renewal and openness to new forms of exchange as well as participation and cooperation between citizens, education and training institutions, the private sector and different national education systems. Online communities (s) sharing practices (at local, regional, national and Union level) are more visible and will grow in the future.

AWARE THAT:

- 14. In line with the principle of subsidiarity, the responsibility for teaching content and for the organisation of education systems lies with the Member States.
- 15. Digital education is implemented to varying degrees at different types and levels of education and training within Member States and across the Union. Experience of digital education technologies across the Union differs and depends to a great extent on policy and governance frameworks, infrastructure and technical facilities as well as financial and human resources. These include in particular well-prepared teachers, trainers, educators and other pedagogical and administrative staff, including institution leaders in education and training.

⁽⁷⁾ Digital citizenship is a set of values, skills, attitudes, knowledge and critical understanding citizens need in the digital era. A digital citizen knows how to use technologies and is able to engage competently and positively with them.

⁽⁸⁾ Teachers, trainers, educators and other pedagogical staff are often involved in various e-portals and online communities, such as European e-platforms like EPALE, School Education Gateway, E-Twinning etc. They can also be involved in broader international e-communities, e.g. through international organisations and multinational business.

- 16. The COVID-19 pandemic triggered a rapid emergency response. Member States closed most of their education and trainings sites and required institutions to provide continuity in teaching, training, learning and assessment mainly through remote approaches.
- 17. The measures taken by Members States and their education and training institutions according to the national circumstances have highlighted the importance of an understanding of digital education, have helped to boost the digital capacities of education and training systems and have provided teachers, trainers, educators and other pedagogical staff with professional development opportunities.
- 18. However, despite the great efforts developed from all Member States, the emergency responses to facilitating remote approaches exposed common challenges and weaknesses among education and training systems across the Union:
 - a) During the COVID-19 pandemic, it often became apparent that a number of learners, to a varying degree across Member States, could not exercise their right to education and training fully due to a lack of proper physical and technological access. (9)
 - b) The unprecedented challenge linked to the COVID-19 pandemic revealed an urgent need for a better provision of digital competences for all in order to ensure equal access to education and training for all individuals and citizens, especially in such situations whereby education and training are delivered remotely. Learners with special needs encountered particular challenges.
 - c) Although the shift to digital education has accelerated during the COVID-19 pandemic, the development and use of new forms of knowledge dissemination can, when done without awareness and intention, replicate more traditional forms of teaching and learning.
 - d) The COVID-19 pandemic has been challenging for the continuity of transnational education and training activities. This concerns cross-border education and training as well as Erasmus+ mobility, in particular for the mobility of students and staff in the field of higher education and vocational education and training (VET).
 - e) The closures of education and training institutions triggered by COVID-19 have altered the role of teachers, trainers, educators and other pedagogical staff, who had to find new ways to keep contact with and to support learners to work independently, whether in collaborative learning environments or otherwise. It has also shown the need for collaboration, capacity building, specific professional training for digital teaching as well as for assistance measures among teachers, trainers and teacher education networks, as well as among education and training institutions.

RECOGNISING THAT:

- 19. The digital divide within Member States and across the Union remains a challenge, since it may reinforce other pre-existing structural inequalities, including social-economic and gender inequalities.
- 20. Data protection and the digital sovereignty of Member States and of their citizens must be ensured in the context of digital education technologies, irrespective of the urgency of the situation. Furthermore, in the context of the increased creation and dissemination of educational digital content, the legal and ethical principles underpinning intellectual property must be recognised.
- 21. New forms of knowledge transfer and learning settings, also in the form of co-creation, promote a broader connection between formal education and training and non-formal and informal learning. The exchange of good practices at local, regional, national and Union level provides opportunities to accelerate the integration of digital education technologies in all forms of learning and to foster high quality and inclusiveness in teaching and learning.

⁽⁹⁾ Eurydice (2020). Impact of Covid-19: closure of education systems in Europe.

- 22. Digital education technologies open up new possibilities for learning and teaching and are an important factor in ensuring high-quality and inclusive education and training. They can complement direct interaction in the form of face-to-face teaching and training as well as non-digital best practices and media for teaching and learning, which continue to retain their importance and cannot fully be replaced by virtual formats.
- 23. For technology to be able to foster quality and inclusiveness in education, it must go hand in hand with safe learning environments and pedagogical approaches. Education technology companies, including start-ups and SMEs, play an essential role in developing innovative and accessible digital education technologies, thereby fostering both digital education and the digital transformation of European economies. Innovation-friendly conditions and appropriate funding opportunities are key for these companies to thrive.
- 24. Digital education needs to emphasise the importance of pedagogical concepts, learning and teaching tools and methods. Educational research can contribute to the development of innovative concepts in education and training and can enable a broader understanding of the impact of the digital transformation on learning and teaching as well as on education and training systems.
- 25. The provision of digital competences in all types and levels of education and training should always go hand-in hand with a relevant mix of related key competences, including life skills, and should be supported by state of the art accessible infrastructure, equipment and technology. Especially vocational education and training programmes, including upskilling and reskilling programmes, require an appropriate mix of digital, occupational and technological skills and competences, which can contribute to employability.
- 26. An internationally competitive and sustainable European innovation system depends on high-quality and inclusive education and training systems. It also relies on an excellent research system, which ideally is closely linked to education and training. Therefore, the early transfer of findings from research and innovation, e.g. from educational research, as well as the co-creation and testing of innovative digital education solutions will be of added value in education and training, e.g. in fields such as policymaking or pedagogical application.

NOTING THAT:

- 27. The European Commission has published a renewed Digital Education Action Plan 2021 -2027 resetting education and training for the digital age (10), which should be followed-up in a co-creative process with the Member States, where appropriate and relevant.
- 28. Its main objectives to foster the development of a high-performing digital education ecosystem and to enhance digital skills and competences for the digital transformation can contribute to a more strategic approach to digital education at Union level.
- 29. A high performing digital education ecosystem (11) should enable high-quality and inclusive education and training through relevant infrastructure, connectivity, digital capacity planning and organisational capabilities that can facilitate a more flexible access to education and training for all individuals in all locations. It is the basis for the successful implementation of digital education and a prerequisite for structural transformation of education and training systems.
- 30. Digital competences and adequate pedagogical approaches are needed for teachers, trainers, educators and other pedagogical staff and learners of all ages in all types and levels of education and training in order to make meaningful use of digital technologies in education. The provision of digital competences should be age- and gender-sensitive and should also cover media, digital and data literacy, critical thinking and the fight against mis- and disinformation, hateful and harmful speech, and cyberbullying and addiction, and address security issues such as the protection of privacy, data protection and intellectual property rights.

⁽¹⁰⁾ COM(2020) 624 final

⁽¹¹⁾ For the purpose of these conclusions, digital education ecosystems can be understood as the necessary environment and conditions to guarantee high-quality inclusive digital education. It mainly refers to high-quality content, user-friendly tools, value-adding services and secure platforms.

31. Non-formal and informal learning should be fostered as important vehicles for providing people of all ages who are outside the formal education system with the necessary level of digital competence, in order to support their professional and personal development, also with regard to factors like social relationships and physical and mental health, as well as digital wellbeing. In this regard, digital environments and a culture of a meaningful and ethical use of digital tools are important. Digital non-formal and informal learning opportunities are especially relevant for young, but also for elderly people who have suffered particularly from the consequences of the COVID-19 pandemic.

INVITES THE MEMBER STATES, IN ACCORDANCE WITH NATIONAL CIRCUMSTANCES, TO:

- 32. Promote the embedding of digital education technologies and the acquisition of digital competences in order to enhance teaching, training and learning in all types and levels of education and training as well as in a lifelong learning perspective.
- 33. Encourage the assessment, quality assurance and validation of learning outcomes of innovative ways of learning including digital components.
- 34. Reflect on pedagogical models and the education and training of teachers, trainers and educators and other pedagogical staff in order to better take advantage of the various opportunities offered by digital education technologies.
- 35. Enable and motivate teachers, trainers and educators and other pedagogical staff, such as teacher trainers to undertake initial and continuous professional development in order to develop and improve their own digital skills and competences and basic knowledge of ICT to a level that enables them to work confidently with digital education technologies and to deliver high quality education and training. In this way, they should be empowered to participate in creating innovative and learner-centred teaching and training methods and applied didactics that promote critical and creative thinking and to create safe high quality and inclusive learning environments and contents. Well-trained teachers who can use digital technologies in a meaningful and age- and gender-sensitive pedagogical way are a key factor in establishing high-quality and inclusive digital education for all.
- 36. Foster the inclusion of all learners, bridging social inequalities and the digital divide, as well as providing equal access to suitable digital learning opportunities and environments for all.
- 37. Consider investments in digital education by harnessing the possibilities of the new Recovery and Resilience Facility, in particular the Connect and Reskill and Upskill flagships, in order to contribute to recovery by modernising and strengthening high-quality and inclusive education and training. Also consider the use of other Union funding opportunities, such as Erasmus+, Horizon Europe, Digital Europe, Connecting Europe Facility II, InvestEU, the ERDF and ESF+.

INVITES THE COMMISSION, IN LINE WITH THE TREATIES AND WITH DUE REGARD TO SUBSIDIARITY AND NATIONAL CIRCUMSTANCES, TO:

- 38. Ensure a coordinated approach on digital education within the Commission and launch, together with Member States and relevant stakeholders, a strategic reflection process on the enabling factors of successful digital education including connectivity and digital pedagogy, infrastructure, digital equipment, teacher and student digital skills, interoperability and data standards, taking into account technological sovereignty, privacy, data protection and ethics, while aiming at a high-quality and inclusive education and training. Furthermore, in this process, follow-up, in close cooperation with Member States and based on evidence, the Council conclusions on countering the COVID-19 crisis in education, aiming at a shared understanding at Union level of the approaches for effective, inclusive and engaging remote learning processes.
- 39. Explore ways to foster a more integrated approach to the development of digital education policy through the possible set-up of a European Digital Education Hub, building on existing networks and other relevant actions, in order to be able to better respond to the speed of the digital transformation, within the context of the European Education Area and in synergy and complementary with other relevant policies.

- 40. Support the development of digital education in Europe and highlight its role through the European Skills Agenda, the European Education Area and the new strategic framework for European cooperation that will replace ET2020.
- 41. Provide information on the development of digital education methods and share good practices, in particular through peer learning between Member States as well as information on international cooperation and benchmarking, e.g. with the Council of Europe, UNESCO and OECD.
- 42. Support the Member States in the ongoing digital transformation in education and training, in particular through cross-sector collaboration between various national digital education initiatives and strategies and bring together authorities, experts, educational researchers, education and training providers, civil society (teacher unions, learner and parent associations) and the private sector.
- 43. Work in close cooperation with Member States and relevant stakeholders to exploit the existing national and European digital education ecosystems while recognising that a high performing digital education ecosystem requires education content, platforms, services and tools that need to be learner centred, trustworthy, safe, pedagogically sound, accessible and, where relevant, multilingual, as well as developed in an open manner and of high quality. This includes addressing ethical aspects, including in artificial intelligence, and fostering the protection of learners' and users' personal data and guaranteeing secure international exchange, through interoperability in line with European data protection regulations.

INVITES THE COMMISSION AND THE MEMBER STATES, IN LINE WITH THEIR COMPETENCES AND WITH DUE REGARD TO SUBSIDIARITY, TO:

- 44. Make efficient use of the digital dimension of Erasmus+, and, where appropriate, synergies with other relevant Union programmes, to support the digital transformation plans of education and training institutions. Further support through Erasmus+ projects the professional development of teachers as well as the development of digital skills, competences and capacity, the effective implementation of digital education and training methods and tools as well as the development of open educational resources throughout all education and training areas with a view to lifelong learning. Explore the potential contribution of Erasmus+ to a better accessibility of digital education content and to greater social inclusion and in order to foster the educational success of all learners.
- 45. Explore the strengthening of synergies between the various European, national and regional programmes, initiatives and projects to support social inclusion; develop digital skills and competences for learners and teachers, trainers and educators, in particular for people at risk of poverty or social exclusion including the most deprived; strengthen the development of innovative learning and teaching methods and tools, and give all learners the opportunity to benefit from high-quality and inclusive education and training.
- 46. Continue supporting the European Universities initiative through Erasmus+ and Horizon Europe as well as the Centres of vocational excellence and harness their potential for the development of digital education; promote the dissemination, exploitation and scalability of relevant Erasmus+ project results to inform policymakers and educational practitioners alike.
- 47. Explore the use of digital technologies to offer a wider range of blended and virtual mobility opportunities as well as further flexible learning opportunities in education and training; support the sharing of best practices to enhance learning and teaching, promote support services and digital administrative processes e.g. those developed in the context of the European Student Card initiative or Europass.
- 48. Further enhance and maximise synergies between self-assessment tools (e.g. SELFIE, HEInnovate), frameworks (the European Digital Competence Framework), participatory events and promotional activities (e.g. the Digital Education Hackathon, EU Code Week), and existing platforms (e.g. eTwinning, School Education Gateway and EPALE); continue working together through networks such as the Digital Skills and Jobs Coalition and continue supporting the Intellectual Property in Education network managed by the European Union Intellectual Property Office.

- 49. Make use of research, including the outcomes of European projects funded under Erasmus+ and Horizon Europe and the Digital Europe Programme in order to strengthen synergies between the European Education Area and the European Research Area in pursuit of the ambitions for digital education to support and harness research to drive innovative pedagogical solutions and to inform policy formation, implementation and evaluation.
- 50. Make use of the outcomes of relevant publications and studies on digital education by the Member States and by international organisations, notably OECD, UNESCO and the Council of Europe.

ANNEX

Political background

- 1. Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning.
- 2. Council conclusions on investing in education and training a response to 'Rethinking Education: Investing in skills for better socio-economic outcomes' and the '2013 Annual Growth Survey' (¹).
- 3. Council conclusions on the role of early childhood education and primary education in fostering creativity, innovation and digital competence (2).
- 4. Council conclusions on Digital Youth Work (3).
- 2015 Joint Report of the Council and the Commission on the implementation of the strategic framework for European cooperation in education and training (ET 2020) — New priorities for European cooperation in education and training (4).
- 6. Council conclusions on developing media literacy and critical thinking through education and training (3).
- 7. Council Resolution on a New Skills Agenda for an Inclusive and Competitive Europe (6).
- 8. Conclusions of the Council and of the Representatives of the Governments of the Member States meeting within the Council, on Inclusion in Diversity to achieve a High Quality Education For All (7).
- 9. Council Recommendation of 22 May 2017 on the European Qualifications Framework for lifelong learning and repealing the recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning (8).
- 10. Council Conclusions on Enhanced measures to reduce horizontal gender segregation in education and employment (7 December 2017).
- 11. Council conclusions on school development and excellent teaching (9).
- 12. Council conclusions on a renewed EU agenda for higher education (10).
- 13. Council Recommendation of 22 May 2018 on key competences for lifelong learning (11).
- 14. Council Recommendation of 22 May 2019 on a comprehensive approach to the teaching and learning of languages (12).
- 15. Council Recommendation of 19 December 2016 on Upskilling Pathways: New Opportunities for Adults (13); and Council conclusions of 22 May 2019 on the implementation of the Recommendation (14).
- (1) OJ C 64, 5.3.2013, p. 5.
- (2) OJ C 172, 27.5.2015, p. 17.
- (3) OJ C 414, 10.12.2019, p. 2.
- (4) OJ C 417, 15.12.2015, p. 25.
- (5) OJ C 212, 14.6.2016, p. 5.
- (6) OJ C 467, 15.12.2016, p. 1.
- (7) OJ C 62, 25.2.2017, p. 3.
- (8) OJ C 189, 15.6.2017, p. 15.
- (°) OJ C 421, 8.12.2017, p. 2.
- (10) OJ C 429, 14.12.2017, p. 3.
- (11) OJ C 189, 4.6.2018, p. 1.
- (12) OJ C 189, 5.6.2019, p. 15.
- (13) OJ C 484, 24.12.2016, p. 1.
- (14) OJ C 189, 5.6.2019, p. 23.

- 16. Council conclusions on moving towards a vision of a European Education Area (15).
- 17. Council conclusions of 9 April 2019 'Towards an ever more sustainable Union by 2030' (16).
- 18. Council conclusions of 7 June 2019 on the future of a highly digitised Europe beyond 2020: 'Boosting digital and economic competitiveness across the Union and digital cohesion' (17).
- 19. Council Resolution on further developing the European Education Area to support future-oriented education and training systems (18).
- 20. Council conclusions on the key role of lifelong learning policies in empowering societies to address the technological and green transition in support of inclusive and sustainable growth (19).
- 21. Council Resolution on education and training in the European Semester: ensuring informed debates on reforms and investments (20).
- 22. Council conclusions on European teachers and trainers for the future (21).
- 23. Council conclusions on countering the COVID-19 crisis in education and training (22).
- 24. European Council conclusions of 1-2 October 2020 (23).
- 25. Council conclusions on shaping Europe's digital future (24).
- 26. Council Conclusions on Reskilling and upskilling as a basis for increasing sustainability and employability, in the context of supporting economic recovery and social cohesion Council Conclusions (8 June 2020).

⁽¹⁵⁾ OJ C 195, 7.6.2018, p. 7.

^{(16) 8286/19}

^{(17) 10102/19}

⁽¹⁸⁾ OJ C 389, 18.11.2019, p. 1.

⁽¹⁹⁾ OJ C 389, 18.11.2019, p. 12.

⁽²⁰⁾ OJ C 64, 27.2.2020, p. 1.

⁽²¹⁾ OJ C 193, 9.6.2020, p. 11.

^{(&}lt;sup>22</sup>) OJ C 212 I, 26.6.2020, p. 9.

⁽²³⁾ EUCO 13/20. (24) OJ C 202 I, 16.6.2020, p. 1.