Council of Europe Standing Conference of Ministers of Education

"The Transformative Power of Education: Universal Values and Civic Renewal"

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Background information on the themes of the conference

THEME 1 : Renewal of the civic mission of education

Introduction

As acknowledged in the report of the High-level Reflection Group that was set up by the Secretary General of the Council of Europe[1], as well as in recent annual reports of the Secretary General[2], European societies are "experiencing democratic backsliding, the questioning of the principle of the rule of law, challenges to our common human rights protection system and many other challenges". This is associated with reduced support for democratic principles, with low levels of trust in public institutions and limited readiness for dialogue and compromise within more and more polarised societies. The COVID health crisis and the Russian Federation's aggression against Ukraine, have been recently added to previous threats to democracy and to the ones represented by climate change and terrorism.

These societal challenges regarding democracy are also often reflected in education institutions. They are manifested, for example, through low levels of participation in democratic processes, superficial and ineffective democratic decision-making, violence, bullying and discrimination, as well as low importance given to the subjects, activities and topics that can develop the competences needed to address these challenges in school and in society at large.

Reaffirming the civic mission of education and renewing the commitment of education institutions to put the aim of **preparing learners for life as active citizens in a democratic society** at the core of their actions, can be seen as education'scontribution to addressing the current and future societal challenges, but also as a recall of one of the core missions of education in general. The Reference Framework of Competences for Democratic Culture (RFCDC) provides the necessary orientation for achieving this aim.

Furthermore the renewal of the civic mission of education was identified as one of the three pillars of the new Strategy of the Education sector 2024-2030 developed by the Steering Committee for Education and which is submitted for approval to the 26th session of the Standing Conference of Ministers of Education.

Opportunities and challenges

There is increasing acknowledgement, among academics, but also among policy-makers and the general population that the development of competences for democratic culture not only enhances the capacity to participate in democratic processes in a democratic and culturally diverse society, but also generates significant positive outcomes in terms of personal and professional development. Moreover, some of the competences for democratic culture are

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[1] https://rm.coe.int/report-of-the-high-level-reflection-group-of-the-council-of-europe-/1680a85cf1
[2] https://www.coe.int/en/web/secretary-general/reports

considered key competences in the rapidly evolving labour market that we see today and will see even more within a few years as well.

The renewal of the civic mission of education can only be fully effective if the learner is put at the centre of a democratic organisational culture and if a whole-institution approach is taken. Learners of all ages in all types of education institutions need not only to learn about democracy, and develop a critical understanding of its features and importance, but need also to practice democracy, to learn through democracy and for democracy, by having access to authentic, meaningful and inclusive democratic and intercultural processes.

An emphasis on the civic mission of education can and should also be connected with a concern for increasing the quality of education. Far from requiring a choice between development of competences for democratic culture and the development of the other competences that education institutions aim for, an environment conducive to the development of competences for democratic culture will also enhance educational achievement in general. Thus, competences for democratic culture can be developed by all teachers and in relation to the curriculum of any subject. Besides subjects that are usually considered the basis for developing competences for democratic culture, like social studies, history, or languages, all subjects can benefit by making explicit their contribution to developing competences for democratic culture. This includes science, technology, engineering, and mathematics (STEM) education. These subjects play a major role in understanding the interactions between humanity and nature and between humans and machines, particularly in the context of the digital and technological transformation of society and of education.

Establishing a direct link between the development of competences for democratic culture and education for environmental sustainability and green societies, of which educational institutions will be part, also represents a major opportunity for both agendas. The priority and attention given to the green agenda in general and to education for sustainable development in particular supports the recognition of the importance of the competences for democratic culture as a major part of the mission of education, while the RFCDC with its array of supporting documents provides valuable and practical orientation for the development and implementation of education for sustainable development activities.

Engaging education institutions in realising their civic mission also contributes to building democratic communities of learning and practice, where both learners and teachers feel valued and where attention is paid to the rights and the wellbeing of all. This also enhances the quality and effectiveness of the pedagogies and teaching approaches used, putting the learners at the centre and engaging them in participating in various types of meaningful interactions and in making responsible decisions about their learning.

The renewal of the civic mission of education also implies the development of partnerships between education institutions and with various other relevant stakeholders. Such partnerships can support education institutions in their work and provide meaningful experiences to learners, supporting them in developing their competences for democratic culture.

However, putting this commitment to the civic mission of education into practice also implies taking into account significant challenges. These include the lack of awareness and recognition of the benefits and opportunities described above, the lack of confidence among education managers and education professionals that such an approach can be successful in their context, in some cases socio-economic barriers, as well as the need to develop capacities in this respect at the level of many education institutions.

If these challenges are successfully overcome, the long-term benefits are significant, not only , for learners, but for education institutions and for wider society.

THEME 2 : Education in times of emergencies and crises

Fostering preparedness and ensuring continued provision of quality education, regardless the type of crisis

Introduction

The emergencies and crises faced by our societies are complex, heterogenous and in constant evolution. The consequences of such events (e.g., conflicts, natural hazards, climate change, epidemics, etc.) are severe and those on education are no exception, spanning from the damage of school infrastructure, the physical and psychological endangerment of learners, the reduction in the number of teachers and education personnel, to the increase in gender disparities, or the overall system dysfunction. In these critical situations, access to and pursuit of quality education is thus at stake.

Already In 2011, the Education for All Global Monitoring Report warned that 28 million of the 67 million children of primary school age who are out of school live in conflict-affected countries. According to UNESCO, if compared to children in stable, conflict-free nations, children in fragile, conflict-affected nations are more than twice as likely to be out of school, and adolescents are more than two-thirds as likely .

Furthermore, preliminary findings reveal that COVID-induced learning losses are more severe among two vulnerable groups - the poorest and those who were already falling behind in their academic performance before the pandemic, two groups which usually include children in crisis.

More than 90% of the world's children have had their education interrupted by COVID-19 and, for many, especially girls and young women, this break may become permanent , thus hindering the possibility to make progress on UN Sustainable Development Goal 4 in the expected timeframe . In most European countries, major critical issues, hindering access and provision of inclusive and equitable quality education, are still present.

Challenges

From a general standpoint, research findings highlight that crises impact education in three main ways:
- Endangering children's wellbeing.
- Hindering access to inclusive and equitable quality education for all (e.g., making impossible to attend school, to achieve minimum proficiency, to complete an education programme, to not tackling learning deprivation).
- Exacerbating unequal learning outcomes, thus provoking also future social impacts (i.e., brain drain, etc.).

The **COVID-19 pandemic** has left public authorities facing an emergency unprecedented in both scale and scope, also for what concerns ensuring the effectiveness and continuity of educational systems, while protecting and promoting the right to quality education.

The response to and management of the pandemic emergency experience shows that strong and effective multilevel governance is essential to prevent, identify and manage emergencies, including pandemics. Resilience, flexibility, capacity, and coordination are instrumental to good democratic governance and to ensure that key services – such as education – continue come what may; especially considering that "the response must ensure compliance with the fundamental values of democracy, human rights and rule of law."[3]

Prior to that, the **migration flows** of recent years that have greatly affected the countries of the Mediterranean, with 2015 as a landmark year for immigration in the EU, with a considerable influx of Syrian refugees on European soil. This phenomenon also impacted education policies and methodologies, shading light on the disparities, barriers, and disadvantages in the school experiences of immigrant and refugee students, as well as on successful integration experiences[4].

At the same time, it led to significant steps forward, such as the elaboration of the European Qualifications Passport for Refugees (EQPR) by the Education Department of the Council of Europe. The EQPR played an important role whe, with the sudden flight of thousands of Afghans, the question of how their qualifications can be assessed and recognized became relevant for recognition authorities across Europe. The EQPR developed a specified training module on qualifications from Afghanistan

In the last two years, with millions of people fleeing **Ukraine** because of the **war**, neighbouring countries are opening their borders and doors to Ukrainian refugees. As to date, over 4.000.000 innocent people, mainly women and children have fled their country. The expected mid- and long-term impact of the Ukraine criss on education, however, implies tackling as well further systemic issues linked to (I)DPs, educational assets destruction and reconstruction as well as those related to refugees' integration in other countries.

Finally, the impact of so called "protracted crises", especially the **climate crisis**, on access and provision of quality education is becoming more relevant by the day. If, on the one hand, climate change is already hindering education rights in specific geographical and socio-economic context, on the other, the international community has recognised that education plays a pivotal role in addressing such issues, allowing for the empowerment and engagement of citizens and relevant stakeholders on policies and actions to react and prevent climate change.

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[3] CDDG, Report on Democratic Governance and COVID-19, 2020(20), available at https://rm.coe.int/cddg-2020-20e-final-reportdemocraticgovernancecovid19-for-publication-/1680a0beed.

[4] OECD, (2015) Immigrant students at school. Easing the journey towards integration, OECD Review of Migrant Education; Koehler, C., Schneider, J. (2019), Young refugees in education: the particular challenges of school systems in Europe. CMS 7, 28. https://doi.org/10.1186/s40878-019-0129-3

Despite their inherent differences, these crises and emergencies present also common traits in their negative impacts on the vision and mission of providing inclusive and equitable quality education at all times. In this perspective, lessons learnt, and good practices harvested are key to identify and cluster some of the main challenges that need to be tackled for quality education delivery in times of crises or emergencies.

Governance-related challenges	Digitalisation-related challenges	Teaching and training-related challenges
- Promotion of "systemic connection" between institutions, private sector, local community. - Inclusion of education in local and nation civil protection plans. - Educational assets protection, reconstruction, and adaptation to crises situations. - Displaced population / refugees. - Organisation leadership. - Promotion of co-operation programmes to support Member States. - Possible brain-drain in countries affected by emergencies and crises. - Adequate housing possibilities (e.g., for higher education students).	- Digital transformation (i.e., at institutional and individual level), allowing individuals to access digital learning (in terms of infrastructures and competences). - Digitalisation of public administration. - Adequate platforms for peer learning. - Quick access/orientation to online available emergency tools for education.	- Innovative methodologies for online teaching. - Qualification recognition (Lisbon Convention). - Training for trainers on: - Propaganda, misinformation, and fake news. - Crisis management. - Mental and emotional health and resilience to trauma.

Crisis vs emergency: a methodological disambiguation

Emergencies and crises are different phenomena. Even though in specific scenarios outputs and impact of these situations may overlap, to understand and clearly define these phenomena highly benefits preparedness and response.

On the one hand, an emergency (e.g., natural hazards: floods, earthquakes; man-made emergency: terrorism, conflict; public health emergencies) can be described as a sudden, unanticipated, or imminent event or scenario that results in, or has the immediate potential to result in, harm, a loss of life, damage to property or the environment, or disruption of routine

operations. On the other, a crisis is any circumstance/event that could result in an unstable and dangerous situation, affecting a person, a group of people, a community, or the entire society.

Crises are unfavourable developments in security, economy, politics, society, or environment, particularly when they happen suddenly and without much or any notice.

Even though the lines between the two can still be blurry, practically, some types of or any crises indeed can be considered as emergencies, but with an increased level of unknowns that require enhanced (and often medium-to-long term) planning and decision-making. Often emergencies can turn into crises and, vice versa, thus, proper crisis management efforts can deescalate to emergency or other measures attended by predetermined teams or line functions.

Council of Europe *Acquis* on Education and continued Provision oF high quality education: objectives and necessary conditions in Times of Crises and Emergency

Since its founding, the Council of Europe has mainstreamed education through numerous documents and recommendations to member states. Education, including the right to quality education for all, has been treated as incidental to several other issues, including human rights, culture and mutual understanding, fighting stereotypes, promoting diversity, equality, mutual respect, and democratic culture.

In recent years, the Council of Europe developed several tools and initiatives to provide quality education in emergencies and crises. The Council of Europe's Education Department developed the European Qualifications Passport for Refugees (EQPR) through capacity building and cooperation programmes. The EQPR helps refugees enter higher education and the workforce in their new countries.

The Council's Language Policy Programme promotes linguistic plurality, cultural diversity, and the linguistic integration of migrants and refugees of all ages by creating and distributing analytical and practical language teaching and learning tools. The European Centre for Modern Languages (ECML) in Graz promotes language teaching excellence and innovation and helps member states implement effective language education policies.

In a series of workshops on the Council of Europe Education Strategy, **preparing education governance to respond to crises and emergencies and ensure the right to quality education at all times** was identified as a key operation objective to empower education for current and future challenges towards sustainable and inclusive democratic European societies.

Building resilient communities through education: a virtous cycle

In recent times, international organisations and other educational actors worldwide have established several programmes to ensure, with different perspectives and approaches, the right to education in emergencies conditions[5]. Such an endeavour should actively involve all levels of education, from compulsory to higher education up to lifelong learning.

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[5] Annex 1 provides a non-exhaustive mapping of such initiatives.

The concepts of resilience and community resilience are at the core of this approach[6]. When considering the resilience of a community, all the elements and relations that form a community should be taken in consideration. Physical robustness (i.e., environmental, and infrastructural) alone is not sufficient to constitute a resilient community. Preparedness and participation are the two key elements of a resilient community, and educational system, their preparedness, and their swift recovery in times of emergency and crises, play a pivotal in contributing to the resilience of their whole contexts of reference as well as in that of the learners and teachers, to which they can provide emotional and psychological support.

Furthermore, several of the competences (e.g., values/attitudes/skills/knowledge and critical understanding) outlined by the RFCDC model appear to be particularly relevant in this framework, as they can foster and reinforce the resilience of educational ecosystems and, more generally, of the community. Furthermore, it is the concept of competence in itself that may prove significant in order to identify specific competences and/or clusters of competences to assess educational resilience at both at institutional/territorial level and at the individual level (e.g., teachers/educators/students/pupils).

In other words, educational ecosystems and the communities in which these operate are potentially both receivers and providers of resilience. Through synergies and complementarities, the virtuous cycle building resilient communities may be activated and, in turn, educational ecosystems are more capable to ensure quality education in times of crises and emergencies.

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[6] Further information on these concepts are provided in the annexed document "Key-concepts and terminology".

THEME 3 : Harnessing the potential of digital transformation in and through education

Introduction

Digital technology enables learners to independently seek knowledge and build skills, and contributes to shaping their attitudes and reinforcing their values in unprecedented ways. Digital transformation has opened innovative opportunities for fostering individual well-being and mobility, protecting human rights, promoting democracy and advancing environmental sustainability, but it also raises challenges, especially through the questionable reliability of much information available online. Algorithms built on limited data sets fan discrimination and prey on user vulnerabilities to anchor mistrust and impede the respect of human rights and democratic principles. Certain competences are essential for citizens to overcome the challenges and benefit from the opportunities the digital transformation brings, many of which are defined in the Council of Europe's Reference Framework of Competences for Democratic Culture (RFCDC). This is the core of digital citizenship education, designed to empower individuals to become active, informed citizens in today's digitally rich world.

A survey conducted in 2020 by the Council of Europe, with 21 000 parents in 47 member States,[7] shows that approximately 1 in 3 citizens has little understanding of the concept of digital citizenship. A majority of respondents in the study are deeply concerned about their children's lack of understanding of their online rights and responsibilities and their lack of knowledge about how to protect their privacy and to behave ethically and responsibly when online. An earlier multi-stakeholder consultation conducted by the Council of Europe in 2017[8] already underlined the need for education authorities to adopt a concerted comprehensive approach to digital citizenship and to encourage synergy between the many private and civil sectors. In 2022, the Council of Europe published guidelines to support and shape equitable partnerships of education institutions and the private sector.[9]

In 2019, a Council of Europe Recommendation[10] to develop and promote digital citizenship education was adopted by the Committee of Ministers of member States. Several guiding instruments followed, including the *Digital citizenship education handbook*[11], which offers examples of ways the respect of human rights, democracy and the rule of law can be prioritised in school education. Concerted efforts were made, alongside those of the European

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[7]. Richardson J., Samara V. (2022), *Digital citizenship education from a parent's perspective*, Council of Europe Publishing, Strasbourg, available at https://rm.coe.int/1680a95e57.

[8]. Richardson J., Milovidov E. (2017), *Digital Citizenship Education: Volume 2 - Multi-stakeholder consultation report*, Council of Europe Publishing, Strasbourg, available at https://rm.coe.int/168077bbe4.

[9]. Council of Europe (2022), Guidelines to support equitable partnerships of education institutions and the private sector, Council of Europe Publishing, Strasbourg, available at https://rm.coe.int /1680a4408b.

[10]. Council of Europe (2020), Recommendation CM/Rec(2019)10 of the Committee of Ministers to member States on developing and promoting digital citizenship education, Council of Europe Publishing, Strasbourg, available at https://rm.coe.int/1680a236c0.

[11]. Richardson J., Milovidov E. (2019), *Digital citizenship education handbook*, Council of Europe Publishing, Strasbourg, available at https://rm.coe.int/1680a67cab; and Richardson, Milovidov, Schmalzried (2017). Internet literacy handbook, Council of Europe Publishing, Strasbourg, available at https://rm.coe.int/1680766c85.

Commission[12] and UNESCO[13] to empower learners to acquire the competences needed to contribute to a democratic culture, and tackle the challenges arising from the digital environment and emerging technologies. The essential relationship between education and democracy has a long tradition in the literature on education policy and practice (Dewey 1916)[14], and several recent studies document how digital tools can increase civic participation.[15] Insufficient evidence is available about the current state of progress in Council of Europe member States about the approach education systems are taking to adapt to the digital transformation and implement digital citizenship education.

The same CM Recommendation noted in 2019 that :

> *AI, like any other tool, offers many opportunities but also carries with it many threats, which make it necessary to take human rights principles into account in the early design of its application. Educators must be aware of the strengths and weaknesses of AI in learning, so as to be empowered – not overpowered – by technology in their digital citizenship education practices. AI, via machine learning and deep learning, can enrich education… By the same token, developments in the AI field can deeply impact interactions between educators and learners and among citizens at large, which may undermine the very core of education.[16]*

Since then, the Council of Europe has moved forward with the drafting of a new Convention on the Implications of AI for Human Rights, the Rule of Law and Democracy and has defined new obligations for public authorities in relation to design, development of deployment of AI in the services they provide.The entry into force of such a Convention will have implications for the policy making in the field of education as well within the Council of Europe and in its member States.

Artificial Intelligence (AI) is complex, developing rapidly, and increasingly having an impact on daily life, bringing both opportunities and threats. This is especially true when AI is applied in educational contexts (AI&ED), where it has implications for human behaviour, child development, education and work futures, individual and collective socio-economic conditions beyond the educational setting, and the human rights of all who are involved.

However, AI is increasingly being deployed in schools and other educational contexts without robust evidence at scale to ascertain its efficacy or full human implications, and with little available guidance[17], no specific regulations, and limited policies (in a recent Council of Europe survey[18], only 4 out of the 23 Member States who responded reported that they had specific policies in place for the use/implementation of AI systems in education).

[12] European Commission (2020). Digital Education Action Plan 2021-2027. Available at https://education.ec.europa.eu/focus-topics/digital-education/action-plan.

[9.] UNESCO (2022). Digital Citizenship Education. https://iite.unesco.org/theme/digital-citizenship-education/

[14]. Dewey (1916). Democracy and education: an introduction to the philosophy of education. New York, Macmillan.

[15]. Schultz et al (2016). Becoming Citizens in a Changing World. IEA International Civic and Citizenship Education Study 2016 International Report. Germany, Springer

16. Council of Europe (2020), Recommendation CM/Rec(2019)10 of the Committee of Ministers to member States on developing and promoting digital citizenship education, Council of Europe Publishing, Strasbourg, available at https://rm.coe.int/1680a236c0.

17. Miao, F., & Holmes, W. (2021). AI and education: Guidance for policy-makers. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000376709.

18. Council of Europe (in press).

Opportunities and challenges

Digital transformation, largely underpinned by Artificial Intelligence (AI), has dramatically changed the educational landscape. To enable individuals to exploit their full learning potential and contribute meaningfully to the democratic culture of their community and society, they require a solid understanding of the basic functioning of digital technology, and its impact in their daily lives. Through adapted pedagogical approaches, digital transformation offers innovative means to facilitate customised, flexible, learner-centric environments that encourage mobility, flexibility, and lifelong learning. When embedded in contexts that promote democratic values and overcome any biases accentuated by the technology, education can be transformed to encourage the development of essential digital literacy which today includes competences such as critical thinking, independent learning, problem-solving and reasoned decision-making.

Digital citizenship education (DCE) offers an opportunity for this, providing an education-friendly framework that adapts holistically across the curriculum. It integrates the competences defined in the RFCDC[19] and encompasses the ten domains of activities that are impacted through digital technology.[20]

Equitable, quality education is also reliant on the knowledge, skills and dedication of teachers as well as on the quality and appropriateness of the tools, platforms and resources they use. Fostering closer cooperation and better synergy between public, industry and civil sectors would allow the development of evidence-based standards and guidelines for all "educational" digital applications, preferably before they are adopted in class. The development of common standards would streamline the evaluation of emerging technology, support teacher training, and facilitate a more rapid adoption of educational innovation. At the same time, it would provide protection against the poor pedagogical strategies that often underpin tools developed by industry for education, reduce gain-inspired influences, and benefit a greater number of learners.

The protection of personal data is an important challenge for contemporary education systems, as it has become a valuable commodity to the business and other sectors. Learners from a very early age therefore need to rapidly become aware of the value of their data, and the multiple ways their fundamental right to privacy can be transgressed. This involves learning about and overcoming vulnerabilities in their digital practices and devices and understanding the many ways that data can be captured with or without their consent, for example through the Internet of Things (IoT) and AI applications such as facial recognition. Digital citizens need to understand ways data can be used for profiling and how algorithms shape behaviour and mindsets, promoting inequality and discrimination. Educational establishments are custodians of highly sensitive data on learners, demanding the highest standards of cybersecurity to protect learners' fundamental right to privacy, and a guiding data protection strategy to cover their responsibility and the well-being of their students.

Digital transformation has triggered an exponential growth in knowledge, radically modifying ways it is accessed and stored, and triggering deep changes in teaching and learning. Many learners spend more time online than in schools, underlining the importance of independent learning

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[19]. Reference framework of competences for a democratic culture (RFCDC)
[20]. Council of Europe (2017), Digital Citizenship Education (DCE): 10 domains, available at https://rm.coe.int/10-domains-dce/168077668e.

strategies, resilience and the ability to filter content for truth and validity. Moreover, education has become more than ever a multi-stakeholder enterprise, with industry seemingly capturing an increasingly important role. Teachers striving to adapt their pedagogical models to the changing needs, interests and practices of learners and society are faced with a major challenge.

The organisation of a European year of Digital Citizenship Education (in 2025) in all Council of Europe's member States would foster learners' contribution to projects and initiatives supported by the Council of Europe, possibly in partnership with other institutions, and encourage schools to review their leadership and functioning within a democratic model. Together, member States would define common, measurable objectives and clarify standards, producing as outcome a snapshot of progress towards DCE. This could facilitate the duplication of good practice and highlight areas requiring greater focus.

The potential of artificial Intelligence for protecting human rights, in and through education

Artificial intelligence, data analytics, and related technologies have potential for impacting positively on education. AI applications might be used to support teaching and learning, for all learners including children and lifelong learners as well as those who have special needs, while data analytics might help us better understand how learning happens.

On the other hand, these emerging technologies might also impact negatively on education, automating poor pedagogic practices, disempowering teachers and learners, and undermining human rights. They could also lead to the downgrading of what is valued, with knowledge transfer and easily measured competencies being preferred over the more humanistic and democratic values (learning that affirms human worth and dignity, reason, compassion, morality, and ethics) that are harder to turn into numerical data.

However, AI in and of itself is not problematic. What is instead potentially problematic is how AI is developed, trained and deployed in educational contexts, who the AI targets and the real beneficiaries, and whether it promotes democracy and democratic values.

How to ensure that AI applications enhance learning and do not cause any harm remains a challenge. Accordingly, more evidence (i.e. large-scale independent research) is required. It has been argued that this research must go beyond simple metrics like academic progress to consider the broader impact of AI tools on learners' developing cognition, mental health and human rights (in a process similar to medicine's stepped safety trials), to facilitate the development of ethical guidance (addressing the ethics of data, algorithms and education) and targeted regulation, before AI is deployed more widely in classrooms.

The application of AI in classrooms also often involves the transfer of knowledge and power from the public to the private sector, an inevitable focus on profits rather than the common good, with multinational corporations not only shaping individual learners and teachers through AI tools but also potentially agenda-setting issues related to governance and national policies.

Finally, AI is all too often the focus of myths, hyperbole and misunderstandings. Accordingly, in order to protect and help digital citizenship flourish, AI literacy might be encouraged for learners

of all ages and throughout society[21], not just for tomorrow's AI engineers, focusing on both the human dimension of AI (AI's potential impact on humans and the environment) and the technological dimension of AI (how AI works and how to create it). In particular, effective and ethical AI in classrooms also depends on teachers, administrators, and other stakeholders having an appropriate level of AI literacy, which can best be achieved by means of professional development.

While other international agencies have explored the ethical impact of Artificial Intelligence on humanity[22], and in a very limited way the ethics of AI in education[23], none have yet taken a holistic approach to the broader impacts (especially in terms of human rights, democracy, and the rule of law) of the application and teaching of AI in education.

21. Vuorikari, R., & Holmes, W. (2022). DigComp 2.2. Annex 2. Citizens Interacting with AI Systems. In R. Vuorikari, S. Kluzer, & Y. Punie, DigComp 2.2, The Digital Competence framework for citizens: With new examples of knowledge, skills and attitudes (pp. 72–82). Publications Office of the European Union. https://data.europa.eu/doi/10.2760/115376.
22. UNESCO. (2021). Recommendation on the Ethics of Artificial Intelligence. https://unesdoc.unesco.org/ark:/48223/pf0000381137.
23. European Commission Directorate-General for Education, Youth, Sport and Culture. (2022). Ethical guidelines on the use of artificial intelligence (AI) and data in teaching and learning for educators. Publications Office of the European Union. https://data.europa.eu/doi/10.2766/153756.