Digital Citizenship Education: Perceptions on the concept, self-reported competences and practices of Georgian school society

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ABSTRACT

The project 'Digital Citizenship in General Education Schools in Georgia: Challenges and Ways of Implementation' aimed to understand to what extent were teachers, students and parents aware of the Digital Citizenship Education (DCE) concept, whether teachers felt competent to implement it in the classroom and what DCE activities were carried out there. Data were collected from 1954 individuals, among teachers (205), students (972), parents and guardians (777), following an exploratory sequential design (qualitative followed by quantitative), and data analysis exposed that even half of the school society members claim to be aware of the DCE concept, they lack the right competences to apply them in their daily practice. Considering the project, two guides were created, one for teachers and one for parents, both aligned with the Georgian curriculum. Both documents aim to raise awareness of DCE and become key resources in training teachers and other educators.

INTRODUCTION

The Council of Europe's committee of ministers signed a recommendation in November 2019 on developing and promoting Digital Citizenship Education (DCE), suggesting that the governments of member States "review their legislation, policies and practices, including learning frameworks", aligning them with "the recommendations, principles and further guidance" of the document, apart from promoting their implementation in formal, non-formal and informal education settings", besides assessing "the impact of the legislation, policies and practices at regular intervals" (Council of Europe, 2019).

Other key recommendations pointed to the need to involve all relevant stakeholders in the process, including through the provision of appropriate resources (e.g., sense-making practices, pedagogical innovations and educational resources), appropriate initial and in-service education and training to teachers and other professionals, promoting co-operation between public, private and civil sectors and education institutions, and ensure their alignment with relevant national, European and international standards (e.g. Council of Europe). Implementing the recommendation should be monitored by member states at least every five years.

The recommendation is an output of the Council of Europe's project "Digital Citizenship Education" (2016-ongoing), aiming to contribute to reshaping the role that education plays in providing all children with the competences they need as digital citizens to participate actively and responsibly in a democratic society, whether offline or online. Its first outputs were a literature review on digital citizenship (Frau-Meigs, O'Neill, Soriani & Tomé, 2017) and a multi-stakeholder consultation focused on sense-making practices in DCE, gaps and challenges in formal and informal learning contexts (Richardson & Milovidov, 2017).

The consultation pointed out "the lack of awareness among educators of the importance of digital citizenship […], the limited number of pedagogical resources available, properly targeted, and at least considerable confusion among experts and educators between what is generally referred to as 'internet safety' and the concept of digital citizenship education" (Richardson & Milovidov, 2017, p. 30). In April 2019, the Council of Europe organised a network of experts and practitioners, the DCE Promoters Network, which represents the project and developing activities in 26 European countries (Council of Europe, 2024).

To tackle the lack of DCE-validated resources, the Council of Europe published the "Digital Citizenship Handbook" in 2019 (Richardson & Milovidov, 2019) and the "DCE Trainers' Pack" in 2020 (Raulin-Serrier, Styslavska, Soriani & Tomé, 2020). Still, in 2020, a year during which around 84% of the world's student population was affected by school closures due to COVID-19 and the consequent shift to online distance learning (UNESCO, 2020), the Council of Europe provided a rapid response to the effects of the pandemic, by launching a set of resources namely a set of lesson plans on DCE (Council of Europe, n.d.).

Georgia has been part of the DCE Promoters Network since 2020, when the national project 'Digital Citizenship in General Education Schools in Georgia: Challenges and Ways of Implementation' started, aimed to understand to what extent Georgian teachers, students and parents were aware of DCE, apart from asking teachers if they felt competent to implement DCE in the classroom and which type of DCE activities were developed in Georgian schools.

Digital citizen, digital citizenship and Digital Citizenship Education

Several multinational models define the values, attitudes, skills and knowledge that an active and responsible citizen must master in order to exercise their full citizenship in the network society, such as the 'Key competences for lifelong learning' (European Commission, 2019), being of particular interest to this paper, the Digital Competence, which stresses the crucial importance of developing citizens' "digital literacy" (Vuorikari, Kluzer & Punie, 2022). Other models include the "global competence" (OECD, 2018), and the "global citizenship education" (UNESCO, 2015).

Although the definitions of the various concepts can overlap, their diversity can lead to misunderstandings, which is why we have opted to use the Council of Europe model and its associated concepts here.

A Digital Citizen is someone able to competently and positively engage with evolving digital technologies; participate actively, continuously and responsibly in social and civic activities; be involved in the process of lifelong learning (in formal, informal and non-formal settings) and be committed to defending continuously human rights and dignity" (Council of Europe, 2019).

Digital Citizenship refers to "the capacity to participate actively, continuously and responsibly in

communities (local, national, global, online and offline) at all levels (political, economic, social, cultural and intercultural)" (Council of Europe, 2019, 2020), and to "continuously developing norms of appropriate, responsible, and empowered technology use" (Ribble, 2017).

Digital Citizenship Education is the umbrella term to refer to the empowerment of learners of all ages through education or the acquisition of competencies for learning and active participation in digital society to exercise and defend their democratic rights and responsibilities online and to promote and protect human rights, democracy and the rule of law in cyberspace" (Council of Europe, 2019). The Council of Europe's model on DCE has at its basis the 'Competences of Democratic Culture' model (Council of Europe, 2018), which considers that being an active and responsible citizen implies the development of a set of lifelong competences both online and offline, and at various levels, from local to global. Also known as the "butterfly model", it consists of 20 competence items organised into four areas (Fig. 1).
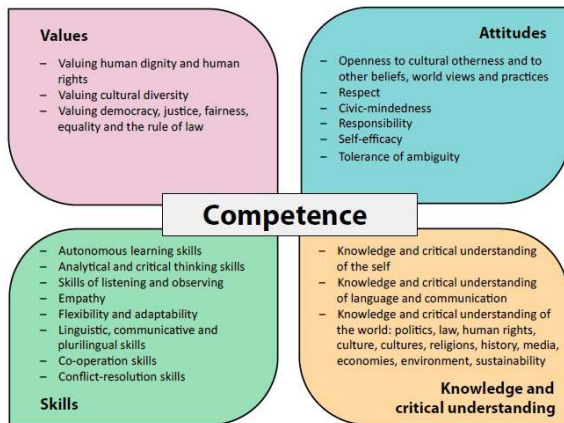

Figure 1. *The Council of Europe's butterfly model (Council of Europe, 2018)*

According to the "butterfly model", which integrates a set of descriptors per item and whose application has been tested in formal learning contexts, the competence items are teachable and learnable, and this learning is measurable. Taking the 'Competences of Democratic Culture' (Council of Europe, 2018) as a fundamental reference, the Council of Europe started the project Digital Citizenship Education in 2016, whose expert group had in mind to build the DCE temple, whose basis is made up of values, attitudes, skills, knowledge and critical understanding (Fig. 2).
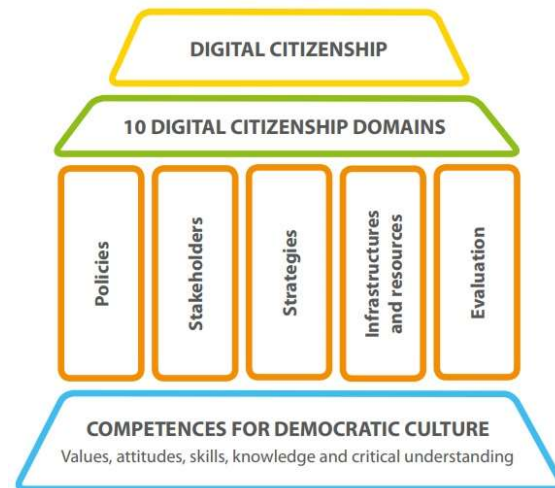

Figure 2. *The Council of Europe's DCE temple (Richardson and Milovidov, 2019)*

The ten digital citizenship domains on the top of the temple are the foundations of the concept of digital citizenship and are organised in three areas:

- Being online: Access and Inclusion; Learning and Creativity; Media and Information Literacy.
- Well-being Online: Ethics and Empathy; Health and Wellbeing; e-Presence and Communications.
- Rights Online: Active Participation; Rights and Responsibilities; Privacy and Security; Consumer Awareness (Council of Europe, 2017).

The domains are also the appropriate way to develop democratic culture competencies in the digital environment, which means policy development, the participation of multiple stakeholders, following contextualised and adapted to the particular methods, and having in mind the available infrastructures and resources. Finally, all actions must be monitored and assessed to develop crucial results to improve the model.

Digital Citizenship Education and media and information literacy

Although all the domains of the Council of Europe's model are equally important, we analyse the domain associated with Media Literacy in particular, as this concept, sometimes under a different name, is vital in the four multinational citizen training models mentioned above.

The European Commission, whose umbrella term is "digital literacy", considers that media literacy "lies at the interconnection between Citizenship and Digital competences" (Vuorikari, Kluzer & Punie, 2022, p. 6)

and defines it as the set of "skills, knowledge and understanding that allow citizens to use media effectively and safely", equipping them "with the critical thinking skills required to exercise judgment, analyse complex realities and recognise the difference between opinion and fact" (European Commission, 2018).

The OECD considers media literacy a requirement to "examine issues of local, global and cultural significance" and defines it as "the ability to access, analyse and critically evaluate media messages, as well as to create new media content" (OECD, 2018, p. 8), while the UNESCO developed a media literacy curriculum for teachers, which has been revised and improved (UNESCO, 2021), and intends "to provide education systems in developed and developing countries with a framework to construct a programme enabling educators and learners to be media and information literate" (p. 13).

Aware of the coexistence of three currents of thought that prioritise different concepts, "media literacy", "information literacy", and "digital literacy", UNESCO associates them under the umbrella concept of "Media and Information Literacy", "that encompasses various and evolving competences required to navigate today's increasingly complex communications environment", such as "critical thinking and other necessary competences to enable their informed and ethical engagement with the integration of content, institutions providing content (and providing opportunities to produce and share own content), and , the Council of Europe also opts for the same designation, defined, in a more traditional way, as "the ability to interpret, understand and express creativity through digital media, with critical thinking" (Council of Europe, 2018). In this paper, we are aligned with this definition, having in mind that "there is an enormous variety of meaning expressed across authors who write about media literacy" and there is no source that "could be considered as a dominant source of a definition for media literacy" (Potter, 2022, p. 37)

Empowering digital citizens – from literacy to fluency

The citizenship competence models, whether they are multinational (e.g. UNESCO, OECD, European Commission, or the Council of Europe), national or regional (e.g., Common Sense Media in the US, Netsafe in New Zealand, MediaSmarts in Canada, Childnet in the United Kingdom, or those developed by ministries of Education in Finland, France or Portugal), have in common the fact they are descriptive rather than prescriptive, since digital citizenship deals with values, and values differ from one place to another. Therefore, regardless of skills, attitudes or knowledge, initiatives to support DCE implementation must be developed within specific contexts (Frau-Meigs et al., 2017).

Our study is scientifically anchored in two models: i) the DCE model organised by the Council of Europe in 2019, which we have already explored above; ii) the Digital Citizenship in schools model developed by Ribble and Bailey (2017), a framework of nine interrelated elements as a way for digital technology users that provide a framework for understanding the technology issues that are important to educators, and should be used to identify current areas of need in a school or district technology program, as well as emerging issues.

The two models are related but autonomous. However, we decided to cross-reference them for two reasons: i) to understand the closeness of the relationship between the two; ii) to organise the presentation and discussion of results (Table 1).

After having crossed the two models, we came up with a set of eight common areas, namely:

1. *Inclusive access:* overcome all sorts of digital divides, from having access to technology to the openness of digital spaces to any minority.
2. *Media and Information Literacy:* ability to interpret, understand and express creativity through digital media, with critical thinking.
3. *Ethical participation:* behave ethically in digital environments by making responsible decisions and participating actively and positively in society.
4. *Health and Wellness:* be aware of risks (e.g., online addiction) and opportunities that can affect wellness (e.g., reliable health information).
5. *Netiquette:* manage online identity and presence, and show suitable etiquette through positive, coherent and consistent interactions.
6. *Rights and Responsibilities*: know the citizens' rights (e.g., freedom of expression) and what is legal and acceptable according to the law.
7. *Privacy and Security:* protect personal and other information (e.g., strong passwords, site security) and act safely online.
8. *Consumer Awareness:* be aware of the dangers related to online purchasing and understand the implications of the online commercial reality.

Table 1. *Ten digital domains vs nine elements*

Ten domains (Council of Europe, 2019)		Nine elements (Ribble, 2017)		Crossing the two models	
1	Access and inclusion	A	Digital access	1+A	Access and Inclusion + Digital Access = *Inclusive access*
2	Learning and creativity	B	Digital commerce	2+3+D	Learning and Creativity + Media and Information Literacy + Digital Literacy = *Media and Information Literacy*
3	Media and information literacy	C	Digital communication	4+7+C	Ethics and Empathy + Active Participation + Digital Communication = *Ethical participation*
4	Ethics and empathy	D	Digital literacy	5+H	Health and Wellbeing + Digital Health and Wellness = *Health and Wellness*
5	Health and wellbeing	E	Digital etiquette	6+E	e-Presence and Communications + Digital Etiquette = *Netiquette*
6	E-presence and communications	F	Digital law	8+F+G	Rights and Responsibilities + Digital Law + Digital Rights and Responsibilities = *Rights and Responsibilities*
7	Active participation	G	Digital rights and responsibilities	9+I	Privacy and Security + Digital Security = *Privacy and Security*
8	Rights and responsibilities	H	Digital health and wellness	10+B	Consumer Awareness + Digital Commerce = *Consumer Awareness*
9	Privacy and security	I	Digital security		
10	Consumer awareness				

Both the set of the 10 digital domains and the set of nine elements are studied and covered by DCE and must be developed by every citizen, from crib to lifelong learning. Therefore, identifying factors, measuring these competences and developing educational models represent the scientific novelty required to be offered to the educational community in Georgia.

Digital Citizenship Education in Georgia

Georgia borders Russia to the north, Turkey and Armenia to the south, Azerbaijan to the southeast, and the Black Sea to the west. Living in a post-Soviet country, Georgian citizens have been facing a significant challenge in dealing with the pervasive influence of Russian propaganda and disinformation campaigns, especially after Georgia applied to become a member of the European Union in 2016.

Georgian authorities identified Media Literacy as a top priority to empower citizens to face a complex environment fraught with misinformation and manipulation. They adopted a strategy and a multi-year action plan (ComCom, 2017). Public and private entities were tasked with working on Media Literacy issues, including digital literacy, cyber security, cyber hygiene, and personal data protection. A study conducted on

Media Literacy identified 85 projects, programs and activities conducted between 2017 and 2020 (Council of Europe, 2022).

Georgian authorities signed the recommendation on DCE in 2019 and finally joined the Council of Europe's DCE project in July 2020. As an educational concept, DCE is relatively new in Georgia's education system. The Georgian general education system officially adopted it in September 2021: two strands/subject areas of The National Curriculum - Computer Sciences at the primary and Civic Education at the secondary level cover the DCE learning outcomes.

The 2020 iteration of the third generation National Curriculum (2018-2024), specifically Chapter 2, Section 1 - "Learning and Teaching Goals and Educational Principles," underscores the importance of digital literacy and media literacy as integral components of overall literacy in the contemporary era dominated by communications and digital technologies. The cultivation of digital literacy competence among students is delineated not only by adherence to the computer technology subject standard but is also characterised as a pervasive competence.

The standard comprehensively addresses disciplines related to digital literacy, encompassing cyber awareness, media literacy, and information literacy. The

national curriculum not only delineates the anticipated outcomes but also distinctions in the level of competence, elucidating relevant indicators and furnishing pertinent examples (Ministry of Education of Georgia, 2020).

Substantial revisions were instituted in 2020 in the Teacher's Professional Standard context, particularly concerning the general competences expected of teachers. Notably, competences such as media literacy, information literacy, and digital literacy have become mandatory requisites for incumbent educators and those embarking on the teaching profession. Consequently, the fundamental tenets of DCE are encapsulated within the foundational documents of general education policy, manifesting in the National Curriculum and the Teacher's Professional Standard.

Before the adoption at the National Curriculum level, on behalf of the Ministry of Education, the National Centre for Teachers' Professional Development has offered a series of in-service training to teachers of the different subject areas regarding DCE, and a set of guidelines have been elaborated and published via the official websites.

Awareness-raising webinars on DCE have been held online for the school society members including parents. Online events for school children have been conducted to raise awareness of DCE. Still, the level of awareness and the competences of the members of the school society has been questioned by the research project group, especially after the break-out of the COVID-19 pandemic; steps were taken to ensure DCE competences at the general education level.

Research in DCE and reports on the state of the implementation of the concept have been scarce in Georgia, and studying DCE Competences is a novelty in the country, both for the scientific community and for the education system. The topic has, however, gained increasing importance. It is even more relevant at the level of general education, as active users of the related technologies are children and adolescents, who, at the same time, are the most vulnerable groups (Ministry of Education of Georgia, 2017).

Developing research in the area is crucial not only from the viewpoint of its scientific value but also from the viewpoint of public awareness. The research conducted by the National Centre for Teachers' Professional Development lays the foundation for a new fundamental knowledge and practical experience of DCE among school community members and of the prospects for their development, which researchers and education policymakers will use.

STUDY DESIGN

The study aims to describe the current situation concerning DCE in Georgia, namely on awareness of the concept and understanding of the concept's foundations (also comparing among different school locations), as well as identifying self-reported DCE competences by teachers, students and parents, in the light of the Ribble's and the Council of Europe's models.

The study follows an exploratory sequential design in which two strands were implemented sequentially. The qualitative methods were first used to explore a phenomenon. They had a greater emphasis on addressing the study's purpose and the quantitative methods followed to assess the extent to which the initial qualitative findings generalise to a population (Creswell and Clark, 2017). We consider it an exploratory study because it was the first time information on DCE was collected from Georgian teachers, students and parents.

The research was conducted in five general education public schools in three phases: diagnosing, intervention, and monitoring/assessment. The research objectives were:

- study awareness of general education schoolteachers, students and parents/guardians about the concept of DCE in its broader meaning
- study awareness of general education schoolteachers, students and parents/guardians about the DCE elements/domains
- Correlate the location of the public school with the teacher's DCE awareness.

The following research questions were formulated according to the aim and objectives of the article:

- *Research question:* To what extent are Georgian public schoolteachers aware of Digital Citizenship?
- *Sub-question 1:* Does the access to the technologies relate to the DCE competences of the school society (teachers, pupils and parents)?
- *Sub-question 2:* Does the awareness of schoolteachers and students about digital citizenship vary according to the geographic location of the school?

The research Hypothesis suggests that: i) teachers in Georgian public schools lack awareness about Digital Citizenship areas; ii) teachers' awareness is not correlated with the location of public schools; iii) Access to the technologies does not relate to DCE perceived competences of the school society.

Method

Data were collected through quantitative methods, specifically surveys/online questionnaires, the most relevant method for collecting information due to the COVID-19 regulations. Education experts, teachers, and students were interviewed using the focus-group method to create and adapt a qualitative research instrument for describing the awareness of school community members in Georgia about DCE.

The questionnaire's starting point was a draft questionnaire titled "Council of Europe Survey on Parent's View of Digital Citizenship", not published and discussed by the Steering Committee for Education Policy and Practice (CDPPE) in 2019. The document was organised into 35 questions distributed through three sections: i) general instructions and personal information; ii) perceptions on DCE in general and per digital domain; iii) an open question asking respondent opinions on what needs to be done to help children become responsible citizens offline and online. All questions were analysed and discussed during focus group sessions.

The focus-group method is often introduced as a 'group in-depth interview', and it is used at the initial stage of research as the first step of studying an unexplored issue and helps to formulate a hypothesis. The information collected during focus-group interviews suggests rich and valuable material for creating mass surveys/questionnaires. Notably, for formulating questions and refining answers to close-ended questions, since the focus group process demonstrates respondents' vocabulary and their model of thinking" (Zurabishvili, 2005, p. 30).

The three questionnaires (teachers, parents/guardians, and students) were elaborated and adapted to the Georgian context, considering the information gathered and discussed with the Teacher's Professional Development Centre of the Ministry of Education of Georgia. The draft versions included 44 questions organised into three areas: personal data, ICT use and practices; digital citizenship perceptions. A pilot study was conducted, and 30 respondents (10 teachers, 10 parents, and 10 students) were interviewed to validate the questionnaires. The final tools were modified but kept the same number of questions and sections.

Georgian public schools were the population of the study. Because of COVID-19 regulations and a limited budget, the sampling process was conducted through Area Sampling, one of the most widespread types of Cluster Sampling. Here, the clusters consist of geographical units: provinces, regions or districts. Schools in Georgia are allocated according to regional location: Tbilisi, East Georgia and West Georgia. The sample was formed within them.

Cluster sampling can be single-stage, two-stage or multi-stage. In this study, the two-stage cluster sampling, particularly probability sampling was conducted in proportion to the population. The research group used a database of schoolteachers and students. The number of individuals per group was defined considering the research aim and objectives (Table 2).

Table 2. *Survey respondents (n = 1954)*

Status/ School	West Georgia #2	Tbilisi #186	Tbilisi #64	East Georgia #4	East Georgia #9	Tot.
Teacher	39	62	14	64	26	205
Student	173	253	91	354	101	972
Parent/ guardian	207	76	50	291	153	777
Sum	419	391	155	709	280	1954

Statistical analysis has been conducted on the survey results with students and parents/guardians. Quantitative data was processed by using the SPSS 25 program. Frequencies, percentages, and correlations of respondents' viewpoints about Digital Citizenship were counted.

RESEARCH RESULTS[1] AND DISCUSSION

Less than half (49,3%) of the 205 surveyed teachers were aware of the DCE concept, and the results were similar among schools.

Only 71 (34,6%) selected a definition of DCE. The most selected one was "A set of citizen's knowledge and skills to use digital technologies effectively" (29 answers), followed by "A person who uses technology by following the appropriate ethics" (22). Other answers were "Knowledge About online safety and cyber security" (5), "Use of social networks" (3), "When you know which information is fake and which is reliable" (2), "When you find out which online game or social network is dangerous" (2), "Effective and targeted use of digital technologies" (1) and other (7).

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[1] Previous results of the project "Digital Citizenship in General Education Schools in Georgia: Challenges and Ways of Implementation" were published before (Lobzhanidze, Urchukhishvili, & Sikharulidze, 2023).

Most teachers admitted that they need to develop competences in the area, namely having access to "more information on DCE" (68%), "short videos from experts" (20%), a webinar in which they can ask questions (5%) a web page for teachers (3%), training (1%), weekly news (1%) and other (2%). This need is even greater among students and parents since 84% and 80% stated that they had not heard about DCE.

In some countries, schools are well equipped with digital technologies; teachers, students, and parents have access to quality technologies they had never had before, but this does not mean they are empowered digital citizens (Ribble, 2015). Therefore, all school staff, including administration, should be trained in DCE and be involved in teaching every student and every family (*idem*).

Teachers, students and parents were also asked to select the definitions of Digital Citizen that they considered more reliable among the four options. Answers show that they focus more on privacy and security than on interculturality issues or the critical assessment of online information (Table 3).

Table 3. *How teachers define a Digital Citizen*
(n = 205)

Definitions	N	%
A person who protects personal information placed in a digital space	113	55,1%
A person who cares for intellectual property and copyright	92	44,9%
A person who is tolerant of intercultural diversities	56	27,3%
A person who critically assesses digitally obtained information	42	20,5%

Similar tendencies were found among students to whom a digital citizen is a person who protects personal information placed in a digital space (37%), a person who cares for intellectual property and copyright (29%), who is tolerant of intercultural diversities (18%) or who critically assesses digitally obtained information (16%). Among parents, 50% considered that a digital citizen is a person who protects personal information placed in a digital space. In comparison, the other defined a digital citizen as a person who cares for intellectual property and copyright (22%), who critically assesses digitally obtained information (17%) or who is tolerant of intercultural diversities (11%).

After analysing the DCE awareness of surveyed teachers, students, and their parents/guardians, further results were organised according to the eight areas defined after combining the DCE Model of the Council of Europe with Ribble and Bailey's Model.

Inclusive access

The questionnaire offered three possibilities to define inclusive access, the first and more correct one ("equal access to any kind of online activity despite the obstacles") having been chosen by 53% of teachers, while "access to the information on the internet any place any time" was selected by 40%, and "is a skill to upload information on the internet from any place and any time" was the option marked by 6% of teachers who respond to the questionnaire.

Internet access in Georgian schools is not a problem, as 92% of teachers state that their school has reliable Internet access, and only 8% say their school has not. A similar situation occurs in Georgian homes, as 96% of parents and 95% of students state they have internet access at home. In addition, 96% of students own a gadget (tablet, laptop, mobile phone/smartphone, personal computer) connected to the Internet, and 92% own a smartphone.

As Ribble (2015) wrote, schools globally acquire technologies, but only a small number of students are taught to use these technologies in a way that can be useful for them as Digital Citizens, and this might be the reason why the quality of internet access does not affect awareness about DCE in the studied schools.

Media and Information Literacy

Media and Information Literacy is a complex concept. Because most respondents are unaware of it, we focused our analysis on the general question "What do you consider to be your level of understanding of information-communication technologies?". Answers revealed that there is a lot to be done in Georgia:

- 41% of the teachers surveyed answered that they understand information-communication technologies, 56% say that they understand them "more or less, " and only 3% state that they know little about them.
- 42% of the respondent students consider that they understand information-communication technologies, 52% say that they understand it "more or less" and 6% admit that they know little about information-communication technologies.
- 34% of the respondent parents/guardians consider that they understand information-communication

technologies, 60% say that they understand them "more or less" and 6% answer that they know little about information-communication technologies.

Ethical participation

Facing the question, "If you open the social network on a public computer and it turns out that the person who has used the computer before has not logged out of their account, what do you do?" teachers respond (Table 4):

Table 4. *"If you find a social network profile not logged out in a public computer…" (n = 205)*

Answer items	%
I will log out of the profile and log into mine	70%
I will not do anything and use another computer	2%
I will post on the timeline of this social network in order that some of the friends of this person find out about the situation	3%
I will send them personal messages and advise them to be more careful next time	24%

Students gave similar answers, as 61% will log out and log in to their accounts, and 31% say that they will inform the user about the situation and offer advice to change the password and protect online safety. Among parents, 66% will log out and only after that log in to their account, while 28% say that they will send a message to the user and suggest being more careful in the future.

Health and wellness

Most teachers (82%) admit that their students own a smartphone and 52% have at least one social network account, even those under 13, who have not reached the proper age yet They (96%) are also aware of the existence of dangerous, violent games and suicidal online challenges (e.g., "1", "Momo's Challenge, "Blue Whale"). However, 46% of teachers say that they ignore their students' activities on social media and do not talk to the students about online games and possible risks.

Concerning the use of gadgets at school, the only limitation and guide for 55% of the teachers is linked to the time frame. Teachers mainly pay attention to time spent on the internet. Still, only a few tell their students not to talk to strangers online (3%), to respect other people online (3%), to assess online information (2%) critically, and that phone numbers and other personal information should not be posted public (4%).

Results show that 73% of students in surveyed schools possess smartphones before they reach 7th-9th grade, and 45% of students say that, on average, they spend more than four hours on the internet every day. Almost all students (97%) use social networks, and 39% of these have a Facebook account before the age of 11. One-third of the students with a social media account state that their parents do not pay attention to their children's activities on social media. And when they do, students declare that parents only control time online and do not go any further over the content, for instance. Nevertheless, 52% of students admit that they talk with their parents about online activities only when a parent gets interested.

Students' perceptions are confirmed by their parents, according to whom (82%) their children use personal smartphones. Seven in ten parents state that they have given these gadgets to their under-13 children, and 84% say that their children use social networks, even those under 13 (37%). Three out of four parents say that their gadgets and their children's gadgets do not include filters such as search browsers, and utilities to block inappropriate websites for certain ages. Six in ten parents have not developed a family agreement about internet use at home, while 40% of the surveyed parents do not control their children's online time at all.

Netiquette

Results showed that 58% of public-school teachers, 43% of students and 44% of parents surveyed do not possess information about netiquette, but most of them say they behave according to the Digital Etiquette rules online, such as:

- 65% of the teachers surveyed state that before posting online, they think carefully about whether their behaviour will harm or hurt anyone.
- 82% of the teachers say that we should respect other people's rights when we express ourselves online. However, we should not restrict free speech.
- 23% of the students state that they should treat other people online the way they want to be treated.
- 65% of students answered that they think carefully about whether their behaviour will harm or hurt anyone before posting online.

However, 5% of the teachers admit that they often post photos and videos where other people are present without permission from those people, and another 5% admit that they post student photos or school life details publicly on social networks.

As Ribble (2015) suggests, people are members of a particular society where they live, and if this society has certain features, for example, if breaking a specific rule is allowed or restricted, the members of the society behave in a similar way in digital space. The research respondents probably do not have information about netiquette, but in the society where they live, people care for other people's rights, and they behave the same way in a digital environment.

Rights and responsibilities

Most teachers (90%), parents (9%), and students (3%) do not participate in civic events or in petitions that concern their rights as citizens, which is evidence of the urgent need to improve participation through media. Characteristics of the society may have an effect in this case as well. In Georgian society, citizens rarely participate in civic activities that concern their rights and responsibilities. Regarding the perceptions about the freedom of expression, 82% of teachers state that it is crucial to protect human rights without restricting the right to express oneself, while only 7% refer that the freedom of expression will have no limits or depends on the social status (6%) on age (5%). Among parents, 58% state that human rights are crucial and must protect freedom of expression, while others think that self-expression has no boundaries (14%). Most students (58%) refer to freedom of expression as a right that can be fully exerted depending on the individual's age, while 30% agree that both human rights and freedom of expression must be protected.

Georgian National Strategy of Cybersecurity 2021-2024 has as its main objective enhancing skills needed for operating safely and securely in cyberspace and raising the level of education for students and schoolchildren. To meet this objective, the Ministry of Education introduced DCE at the three levels of general education (primary, basic, and secondary). Amendments were made in the third generation of the National Curriculum of General Education (2018-2014) by considering the cybersecurity strategy and the requirements of the strategy depicted. The respondents interviewed did not have information about the amendments as the fieldwork was conducted in 2020. If the amendments to the National Curriculum had been made in 2020, the teachers interviewed should have been more informed about the issue. According to Ribble, it is crucial that a country has cyber legislation, and it is also important that teachers, students and parents/guardians become acquainted with and aware of legislation (Ribble, 2015).

Privacy and security

Discussions among teachers, parents/guardians, and students about privacy and security issues have not yet started. Teachers admit they are unprepared to discuss these matters with their students. They also admit to lacking competences: 96% are willing to get further information and knowledge about privacy and security, in most cases (67,8%) for prevention, but also "when there is a specific case, and I face the problem" (28,3%), while 3,9% of respondents considered they do not need to because "my students will take care of themselves". Among students, 38% believe that they should protect their own personal information, as well as other people's personal information.

A communication issue was also raised, as 70% of the teachers say that they have too little information about online life and friends of their students, which opposes parents and students: 71% of the parents state that they know almost everything about online life and friends of their children; 58% of the students stated they tell everything to their parents about online life and friends, while only 27% of students give a negative answer to that question. Nevertheless, 65% of the students surveyed state that parents do not control their online activities. Even if one of the most outstanding achievements of the digital revolution was enabling people to communicate with each other, research results showed a lack of communication and collaboration among colleagues in the Georgian public schools (Malazonia, Lobzhanidze, Maglakelidze, Chiabrishvili & Natsvlishvili, 2022). One of the reasons could be the context of the pandemic lockdown, as the field stage of the study was held particularly in that period.

Consumer awareness

School communities do not offer information to the students about consumer awareness, as the teachers and school principals lack sufficient and correct information on the topic. However, suppose the teachers want to empower their students as Digital Citizens, this is one of the most critical issues (Suson, 2019), namely knowledge and information about Digital Economics and Commerce (Ribble, 2015), which should be introduced in schools and should be adapted to students so that they become responsible Digital Citizens. Anyone who works, plays, or buys objects online is a

member of digital society and an economically active person. Students should acknowledge that their online activities may affect their offline lives (e.g., their accounts may be blocked because of credit card debt).

RESEARCH FINDINGS AND THEIR IMPLICATIONS

As Digital Citizenship Education (DCE) is a new field in the Georgian context, data collected through this study in 2020 show that the country needs to review its legislation, policies, practices and learning frameworks, aligning them with the Recommendation on Digital Citizenship Education signed by all the member-states in 2019 (Council of Europe, 2019). It is, however, essential to refer that the strategy and action plan of cyber security, two documents elaborated on by the Georgian government and under application between 2021 and 2024, could be understood as a way forward, and its implementation shall be monitored regularly, as the Council of Europe's recommendation proposes.

DCE is an umbrella concept that we have organised in eight main areas (Inclusive access, Media and Information Literacy, Ethical participation, Health and Wellness, Netiquette, Rights and Responsibilities, Privacy and Security and Consumer Awareness), which are not mutually exclusive but overlap and complement each other, being each area as important as all the others. Therefore, because teachers, parents and students are more focused on privacy and security than on Media and Information Literacy or Ethical Participation, it is crucial to empower them in formal, informal and non-formal learning contexts (Frau-Meigs et al., 2017).

Following the initial results of the project "Digital Citizenship in General Education Schools in Georgia: Challenges and Ways of Implementation', the National Center for Teachers", Professional Development (TPDC), under the auspices of the Ministry of Education and Science, published the 'Parents' Guide in the Digital World' (Sikharulidze, 2020), aim of enlightening parents on their involvement in fostering the Digital Literacy and Cyber-Ethics of their children, recognising parents as integral contributors to the school society. The guide comprises 13 overarching chapters that delve into the challenges of parenting in the digital era, identify these challenges and offer potential solutions to

readers who grew up in a more limited technological environment, lacking personal experience in navigating the complexities of a partially virtual world. This environment has become the natural ecosystem for their children. It addresses realistic problems parents face in their daily lives, tackling issues such as online safety, cyber-security, and the peculiarities of popular social networks, messengers, and video portals, apart from gaming and gambling challenges faced by children and young people in today's digital landscape. Furthermore, it explores the ethical dimensions of parenting in the digital age, emphasising the importance of raising children without alienating them by imposing excessive bans or restrictions on technology use.

Due to the crucial importance of school settings, and because Georgian teachers admitted lacking the proper competences to apply DCE in their everyday practice, it is urgent to develop in-service teacher training courses, both face-to-face and online, as well as to produce, validate and make available pedagogical resources for teachers and other educators. Even though there were no identified statistically significant differences among schools/regions in Georgia regarding awareness of DCE, it is important to have always in mind the local contexts, promoting the planning and development of local/ and/or regional projects that are in line with the national legislation documents but also with the local interested and potentialities (Tomé and de Abreu, 2023).

The local DCE projects might improve conversation and communication among and between teachers, parents and students, as the results showed that seven in 10 students do not talk with teachers about the content they face, the actions they take or the information they share online and if six in 10 reported that they speak with their parents, a similar number stated that their parents are not aware of their online life.

As a result of the project's findings, the TPDC also published the "Guideline for Digital Citizenship Education for Teachers"[2] (Sikharulidze, Lobzhanidze & Urchukhishvili, 2022). The guideline is structured into two comprehensive chapters. The initial chapter delineates the three dimensions and ten domains of the educational concept of Digital Citizenship, elucidating its pedagogical value and cross-curricular significance. This section further explains the implementation methods of the DCE policy documents by the Council

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[2] The Guideline for Digital Citizenship Education for Teachers has been disseminated through online platforms catering to educators, namely the portal of the National Center for Teachers' Professional Development and the portal of the

National Communications Commission, a regulatory body overseeing Internet and digital communications and actively involved in fostering awareness about Media Literacy (https://educationhouse.ge/; https://mediatsigniereba.ge/).

of Europe and the National Curriculum of Georgia, shedding light on the policy implementation of the National Curriculum, emphasising collaboration among various subject area standards as a multidisciplinary resource. The second chapter furnishes teachers with recommendations on seamlessly integrating each dimension and domain of DCE into their daily teaching practices. This involves transforming them into engaging activities within the classroom or instigating school projects. Therefore, it provides practical illustrations of formal and non-formal educational activities and projects that are adaptable across diverse subject areas.

The results also showed that teachers, students and parents surveyed have Internet access and that digital devices are available in schools and family homes, pointing out that the lack of DCE awareness is unrelated to low access. It is essential to mention that the Georgian Ministry of Education and Science has supplied the pupils with personal netbooks since 2011. As it turns out, access to technologies does not directly relate to developing the DCE competences in the Georgian context.

From 2022 to the present, Georgia has taken important steps, having organised the first Media Literacy Week in October 2021 (ComCom, 2021). The Ministry of Education, in partnership with UNICEF, also trained 600 teachers in Media and Information Literacy (MIL) and included MIL in the national curriculum in September 2023 (Council of Europe, 2023a). In October 2023, the National Centre for Teacher Professional Development (TPDC) organised, in partnership with UNESCO, a conference on Global Citizenship Education on 30 October 2023 in Tbilisi, during which Media and Information Literacy and DCE core concepts were under discussion (Council of Europe, 2023b). In November 2023, TPDC organised the conference 'Artificial Intelligence in Education' (Council of Europe, 2023c), attended by 140 teachers and other experts, during which the Georgian version of the Council of Europe's publication "Artificial Intelligence and Education a Critical View Through the Lens of Human Rights, Democracy and the Rule of Law", was launched.

In light of these advances, we recommend: i) carrying out a new study on the perceptions and practices of MIL and DCE in schools; ii) questioning teachers about how to include DCE in the curriculum, and informing the Council of Europe's ongoing work aimed to create a common curriculum; iii) organising a training plan for school staff, students and families,

based on national context and the resources developed and validated by the Council of Europe.

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