

CITIZENSHIP AND SCHOOL IN THE DIGITAL CONTEXT¹

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ABSTRACT

This article analyzes aspects of citizenship that have influenced the configuration of the school as a place of social learning. The first part confronts those frameworks with the results of the EU Kids Online (Portugal) and ICT Kids Online (Brazil) surveys of children and adolescents about digital opportunities and activities. The second part looks at Portuguese citizenship educational policies and the responses of Portuguese students about the formal education in the past year regarding digital citizenship. The conclusions point to the relevance of schools as social institutions that should neither block the opportunities offered by the digital world nor ignore the risks it poses to full citizenship.

KEYWORDS: Digital Citizenship; Education; ICT curriculum; EU Kids Online.

CIDADANIA E ESCOLA NO CONTEXTO DIGITAL

RESUMO

Este artigo discute aspetos da cidadania que têm influenciado a configuração da escola como um espaço de aprendizagem social. A primeira parte analisa dimensões da cidadania e confronta-as com resultados de estudos EU Kids Online (Portugal) e TIC Kids Online (Brasil) sobre oportunidades digitais e atividades online reportadas por crianças e adolescentes. A segunda parte confronta as políticas educacionais sobre cidadania em Portugal com as respostas dos jovens estudantes portugueses sobre a formação escolar que receberam no último ano em cidadania digital. As conclusões apontam para a relevância das escolas como instituições sociais que não devem nem bloquear as oportunidades oferecidas pelo digital nem ignorar os seus riscos para uma cidadania plena.

PALAVRAS-CHAVE: Cidadania digital; Educação; currículo TIC; EU Kids Online.

CIUDADANÍA Y ESCUELA EN EL CONTEXTO DIGITAL

RESUMEN

Este artículo debate aspectos de ciudadanía que han influido en la configuración de la escuela como lugar de aprendizaje social. La primera parte confronta estos marcos con los resultados de los estudios EU Kids Online (Portugal) y TIC Kids Online (Brasil) sobre oportunidades digitales. y actividades reportadas por niños y adolescentes. La segunda parte confronta las políticas educativas sobre ciudadanía en Portugal con las respuestas de los jóvenes estudiantes portugueses sobre la educación escolar que recibieron en el último año con respecto a la ciudadanía digital. Las conclusiones apuntan a la relevancia de las escuelas como instituciones sociales que no deberían bloquear las oportunidades que ofrece lo digital ni ignorar sus riesgos para la ciudadanía plena.

PALABRAS CLAVE: Ciudadanía digital; Educación; Plan de estudios TIC; EU Kids Online.

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1 INTRODUCTION

When I was invited to participate in the 2020 Web Curriculum Seminar, on Education and Humanism, Beth de Almeida suggested that I might introduce issues of technology and digital citizenship. Looking into the recent curricular guidelines in Portugal reminded me of my experience as a primary school teacher in the 1980s. I worked in a lower income school involved in pedagogical innovation project that considered children to be agents of their own learning: among other practices, they used iron types to compose and print copies of their own writings. I later served as a teacher trainer in the MINERVA project which introduced the first computers into classrooms. It was a prehistoric time in the digital era when cassettes were used to enter programs such as the LOGO language and the children helped teachers solve technological problems. I would like to thank you, Beth de Almeida, for this invitation that has brought me these memories.

The years passed by. At the university, I continued to look at children and the media as part of my research on media and communication. Acting as the Portuguese coordinator for the European EU Kids Online, in 2011, I was the liaison between Sonia Livingstone of the London School of Economics and Political Science (LSE) and Alexandre Barbosa, from the *Centro de Estudos das Tecnologias de Informação e Comunicação* (CETIC) which sought to bring to Brazil the theoretical framework and methodology of EU Kids Online so that its assessment of internet risks and opportunities might be replicated there.

In 2012, CETIC published the first results of ICT Kids Online Brazil. Since then, the study has been carried out yearly, as one of the center's many national and international research projects of excellence. The information provided by this historic series has enabled researchers to follow the changes and continuities in terms of access, use, skills, risks, and mediations for digital activity among Brazilian children and teens. This data is crucial not only for policymakers, but also for researchers and all those who work with children, teens, and their families. Exponential changes have taken place — for example, mobile technology has eclipsed desktop computers and cybercafes — while other results illustrate the permanence of behaviors that are rooted in economic, social, and cultural issues.

The ICT Kids Online Brazil gave a strong impulse to the Latin America Kids Online network. A recent report by the United Nations Economic Commission for Latin America and

the Caribbean (ECLAC) presents contextual data and results from Brazil, Chile, Costa Rica, and Uruguay (Trucco and Palma, 2020). The Latin America network is part of the Global Kids Online network, coordinated by UNICEF.

CETIC research on ICT in Education since 2005 has also enabled researchers to collect updated and longitudinal data about the digital conditions faced by Brazilian schools, their structures, teachers and students. The PhD thesis of Daniela Costa (2019) shows the potential of these studies for informing policies about schools, training and curricular intervention.

Collaborative work has made it possible to analyze results about the digital use of children and teenagers from each side of the Atlantic. In 2014, the results from ICT Kids Online in Brazil and from Net Children Go Mobile surveys in seven countries (Belgium, Denmark, Ireland, Italy, Portugal, the United Kingdom, and Romania) evidenced the high number of contacts on social networks reported by Brazilian and Romanian children, in contrast with their peers in Denmark (Sozio et al., 2015), thus pointing out that socio-economic and cultural characteristics may serve to approximate or differentiate countries.

In 2018 an updated version of the EU Kids Online questionnaire was carried out in Portugal and in 18 other European countries, enabling another comparison with Brazilian results for the same year. This new data serves as the basis for this article on education and citizenship.

We begin by reviewing aspects of the concept of citizenship, how they have approached the school as a place for social learning and what areas of digital citizenship have been listed in school curricula. Against this background, we move on to analyze the responses of Portuguese and Brazilian children about digital opportunities and their online activities. Next we compare educational citizenship policy in Portugal with the responses of Portuguese students about the digital citizenship training they had received in the preceding year.

2 THE CONCEPT(S) OF CITIZENSHIP AND EDUCATION

The modern definition of citizenship was ushered in during the Enlightenment. It was marked by mutual obligations between the State and individuals associated with rights, duties, conduct, power, and protection. This definition is visible in fields ranging from law to political science. In education, the contributions by the French sociologist Émile Durkheim (1858-1917)

about the social function of the public school as an agent of socialization and training of the 'future citizen' continue to be influential.

Durkheim worried about the social anomie undermining life in the metropolises that resulted from industrialization and from the demographic and urban expansion in modern societies. He proposed a new form of structural solidarity adapted to the novel forms of societies that he called 'organic solidarity'. In order to guarantee this new social solidarity be based on a legal-rational order, Durkheim argued that the education of the young had to be performed by the secular school and that attendance had to be compulsory, as spelled out in *Education and Sociology*. The State's educational responsibility should be carried out by a network of public schools, with a curriculum guided by values of republican citizenship and by the learning of those specialized skills necessary for a society marked by the division of labor. Along this line, the public school — with its regulation of spaces, times, content, figures and canons of obedience — would have a central role in the socialization of children, especially those from disadvantaged backgrounds, whose parents resisted removing them from work where they contributed to the family economy.

The curriculum of common values included the acquisition of the national language, moral education, the capacity for self-discipline, internalization of social rules, and the duty of civic participation. This educational model — with an older generation transmitting knowledge stipulated by a national curriculum to successive younger ones — continues to exert its influence.

Meanwhile, alongside this definition of political and economic citizenship based on a structural and functionalist vision of society, a different one has been gaining currency. It highlights interaction between individuals and the processes of elaborating meaning, which should also be considered as acts of citizenship.

This interactionist approach was influenced by Max Weber (1864-1920) and Georg Simmel (1858-1918), contemporaries of Durkheim but with radically different perspectives on society. They emphasized the social action of individuals and forms of human sociability. In the fields of education and communication studies, an influential figure of this interactionist line was the philosopher John Dewey (1859-1952) of the Chicago School, one of the early 20th century pillars of the production of social knowledge focusing on human ecology. Born in the small state of Vermont, on the east coast of the United States, Dewey grew up within a communitarian culture. He was concerned with the rooting of individuals in the community,

which he found necessary for the consolidation of a new nation. This led him to affirm that effective education would come primarily from social interaction starting in the earliest years of schooling.

Dewey saw education as a learning process grounded in the present, so he founded a unique educational space, the Laboratory School, where children learned from each other to solve problems together, as a community. Students were seen as unique subjects, who would take it on themselves to build their own knowledge by way of their own means rather than passively receiving that imposed and transmitted by a teacher carrying out activities determined by structured curricula which might be at variance with their particular existential conditions. According to Dewey, education should also include the intellectual, social, emotional, physical and spiritual development of the child as a whole, and not merely academic development. This progressive model of education (Dewey, 1938; Williams, 2017) prompted theories of learning that were constructivist and student centered and that prized experimental knowledge.

Returning to the concept of citizenship, a tension arises between the relational status of citizenship and citizenship for the individual based on the rights and attributes of a person. If the former continues to be the norm in institutional discourse, the second has gained increasing attention and has taken on diverse forms, especially since the second half of the last century. The claiming of civil rights by individuals and social movements in the name of their identity brings to the fore a so-called cultural citizenship. Hartley (2019) highlights two of its characteristics:

a) *The right to know and to speak*, in the words of Toby Miller (2006), in addition to political citizenship (the right of residence and to vote) and economic citizenship (the right to work and a better life). This cultural citizenship is based on a group identity (indigenous peoples, national minorities, subcultures, gender, sexual orientation, race and ethnicity, people with disabilities, age groups, etc.); and

b) *Communities with a voluntary affiliation*, linked by affections and lifestyles. These communities often make subversive use of the media to nurture relations of association and identification that are in countercurrent to commercial strategies. They organize themselves within a do-it-yourself culture, and they are marked by group participation through sharing, parody, and fun. These components stand in contrast to the sobriety and formal distance of the modern and rational ideal of citizenship in the public sphere (Hartley, 2010).

Hartley also notes that the internet has expanded the possibilities of individual expression by promoting horizontal communication and creative and collaborative practices in physical and virtual networks. This “citizenship of parody and humor” chooses comedy as the most reliable source of political information and manifests itself mainly at electoral moments, capturing the attention of youth, a group marginalized from the habermasian public sphere (Hartley, 2010).

Digital social networks facilitate this line of civic involvement by creating opportunities for sharing stories that create trust, build connections and suggest a vision for the group's development, as pointed out by Nick Couldry and colleagues (2014).

3 YOUNG PEOPLE AND DIGITAL CITIZENSHIP: PRACTICES AND COMPETENCES

Regarding education and citizenship, Durkheim' and Dewey's views have influenced definitions of digital citizenship and their respective curricular programs. A recent report by Harvard University's Berkman Klein Center proposes an expanded, future oriented model of digital citizenship for young people (Cortesi et al., 2020) based on a review of trends. On the one hand, the review identifies a normative idea of citizenship that focuses on young people's understanding the values and norms related to the responsible, safe, and appropriate use of digital technology and emphasizes legal aspects and consequences that should be taught in schools (e.g. Ribble and Bailey, 2007). On the other hand, the review highlights forms of youth civic and political involvement, fueled by a sense of community and by a “culture of participation” (Jenkins et al., 2006).

Jenkins and colleagues (2006) call attention to the fact that youth involvement in digital participatory culture can take several forms: *expressive* (creating content); *associative* (joining a digital community, such as forums or social networks); *collaborative* (working with others to create new knowledge, such as wiki pages); and *content sharing activities* (such as piracy). For young people with access to digital technology and the know how to make use of it, participatory cultures open up opportunities for personal creation, connection with communities of similar interests, cooperation in projects with many participants, and alternative circulation of content, among other activities.

As part of a broad view of what has been described as skills for citizenship in a digital context, the report lists 17 areas that bring together “the skills that young people need for full participation from an academic, social, ethical point of view, political and economic in our rapidly evolving digital world” (Cortesi et al., 2020: 28). They appear in Table 1.

Table 1 - The 17 Areas that currently constitute Digital Citizenship+ (Plus)

Areas	Abilities
Artificial Intelligence	The ability to understand the algorithms involved in the AI-based platforms one interacts with and the ethical conversations happening around the development of these technologies.
Civic and Political Engagement	The ability to participate in public matters (e.g., LGBTQ rights, peace-building, addressing hate speech) and advocate for issues one cares about—using digital and non-digital tools—ideally to improve the quality of life in one’s community, from micro to macro levels (Levine, 2007).
Computational Thinking	The ability to understand and apply computational concepts, practices, and perspectives. Computational concepts include concepts individuals leverage as they program (e.g., ‘sequencing’ or identifying a set of steps for a task; ‘loops’ or running the same series of steps multiple times). Computational practices represent the practices individuals cultivate while they program (e.g., ‘experimenting and interacting’, ‘reusing and remixing’, or creating something by building upon current ideas or projects). Finally, computational perspectives refer to the development of individuals’ perspectives of themselves, their connections to others (such as within the context of collaborative online communities), and the technological world more broadly (e.g., ‘connecting’, or understanding the power of developing content both with and for others (Brennan & Resnick, 2012)).
Content production	The ability to produce (digital) content using (digital) tools.
Context	The ability to be aware of, understand, and interpret the contextual factors of relevance (e.g., cultural, social, local/regional/global) in a given situation—with a particular emphasis on the experiences and perspectives of underrepresented groups, whether in terms of age, ethnicity, race, gender and sexual identity, religion, national origin, location, skill and educational level, and/or socioeconomic status—and effectively engage in the situation.
Data	The ability to be aware of, create, collect, represent, evaluate, interpret, and analyze data from digital and non-digital sources.
Digital Access	The ability to connect to and access the internet, individually or collectively (e.g., <i>mesh technologies</i>)
Digital Economy	The ability to navigate economic activities online and offline to earn different forms of economic, social, and/or cultural capital (e.g., earning money, increasing social connections, building personal brands).
Digital (Literacy)	The ability to use the internet and other digital tools and platforms effectively to find, interact with, evaluate, create, and reuse information (Palfrey & Gasser, 2016). The ability to comprehend and work through conceptual problems in digital spaces (Carretero et al., 2017).

Identity Exploitation and Formation	The ability to use (digital) tools to explore elements of one's identity and understand the influence of one's communities on one's identity.
Information Quality	The ability to find, interact with, evaluate, create, and reuse information (broadly speaking, e.g., news, health information, personal information) effectively (Palfrey & Gasser, 2016).
Law	The ability to engage with legal frameworks, concepts and theories surrounding the internet and other digital tools (e.g., copyright, fair use), and the ability to apply these frameworks to one's activities.
Media (Literacy)	The ability to analyze, evaluate, circulate, and create content in any media form (e.g., print, visual, interactive, audio), and to participate in communities and networks (...).
Positive/respectful behavior	The ability to interact with others (both individuals and the larger collective (James, 2014)) online in a respectful, ethical, socially responsible, and empathic manner.
Privacy and Reputation	The ability to protect one's personal online information and that of others. An understanding of the digital 'trail' left behind as a result of the activities one engages in online, the short- and long-term consequences of this trail, the appropriate management of one's virtual footprint, as well as an understanding of inferred data (i.e., new data derived from capturing and analyzing other data points, which may result in new knowledge about a person (van der Hof, 2016)).
Safety and Well-being	The ability to counteract the risks that the digital world may bring to protect one's physical and mental well-being (e.g., guarding against internet addiction and repetitive stress syndrome). (...)
Security	The ability to protect the integrity of one's information, digital devices, and assets (e.g., login information such as passwords, profiles, websites).

Source: Cortesi, S. et al. (2020: 28-30) — Adapted.

The report stresses the interconnectedness of all areas. For example, digital skills that enable young people to build their identity include social and communicational competencies as well as literacy, security, resilience, privacy, and reputation management. It also argues for a more equilibrated view of digital competencies that counterbalances the emphasis on risk avoidance that devalues digital opportunities. Moreover, the report highlights the importance of students' context for the design of digital citizenship initiatives, as factors impacting access to and the use of digital technology include those of gender, age, ethnicity, sexual identity, nationality, religion, socio-economic situation, and school level (Cortesi et al., 2020).

Regarding context, recent Brazilian data shows that access to digital technology is still denied to around six million children and teens. Furthermore, many of those classified as digital users live in contexts that make a difference. Qualitative studies with pre-adolescents from low income areas report constraints on digital use resulting from having to share a cell phone with internet access with other family members (Sampaio, Máximo & Ponte, in press). To the extent that the differences are recognized, these young people can be involved in jointly designing

educational initiatives that take their needs and interests into account. Digital competency initiatives should use “participatory and collaborative environments, which appeal to and value their knowledge, curiosity and creativity” (Cortesi et al., 2020: 39). Although these initiatives “require more time, flexibility and investment than preformatted programs, the inclusion of young people can contribute so that the defined content has more meaning and really involves them” (idem, ib.).

To date, four of the 17 areas identified in the digital citizenship program have received little attention: digital economy, data analysis, artificial intelligence, and computational thinking. The latter three, in particular, must be appreciated not only for the technical skills they require, but also for the cognitive, metacognitive, social and emotional skills that are brought to bear in the broader digital system (Cortesi et al., 2020: 40). The 17 areas are grouped into four major educational objectives as shown in Table 2:

Table 2 - Grouping of skills

Possible grouping	Aims and tools
Participation <i>Digital Access; Digital (Literacy); Content Production; Security; Law.</i>	The educational tools under this grouping help youth understand how to get connected to the internet; use the internet and other digital tools and platforms to find, interact with, evaluate, create and reuse information; and produce content online. The tools help youth protect their digital devices and assets and understand and apply legal concepts to the digital environment.
Empowerment <i>Civic and political engagement; Context; Information Quality and Media (Literacy)</i>	The educational tools under this grouping help youth participate in public matters and advocate for issues they care about; develop the ability to be aware of and interpret the contextual factors of relevance (e.g., cultural, social, local/regional/global) in a given situation and effectively engage in it; and find, evaluate, create, and share information and other content across different media forms.
Engagement <i>Digital Economy; Data; Computational Thinking, and Artificial Intelligence</i>	The educational tools under this grouping help youth cultivate the ability to navigate economic activities online and offline; engage in data creation, collection, interpretation, and analysis; understand and apply computational concepts; and understand and take part in conversations about artificial intelligence.
Well-being <i>Privacy and Reputations; Identity Exploration and Formation; Positive/ Respectful behavior; Safety and Well-being.</i>	The educational tools under this grouping help youth protect their personal information online (and that of others), explore their identity, engage with others (both individuals and the larger collective) online in empathic, ethical and positive ways, and counteracts the risks the digital environment may bring to protect their physical and mental health.

Source: Cortesi, S. et al. (2020: 33).

The conceptual frameworks of citizenship and the systematization brought by this recent report about digital citizenship education guide the following analysis of Portuguese and Brazilian children and teens' answers on digital practices and as reflections around the formal citizenship curriculum currently in use in Portugal.

4 DIGITAL PRACTICES OF PORTUGUESE AND BRAZILIAN YOUNG PEOPLE

We start with Portuguese children's views about positive aspects of the internet and go on to report on digital activities in both countries.

4.1 Answers about internet opportunities - in their own words

One of the first questions asked Portuguese respondents (N=1840) to indicate internet activities they considered good for people of their age (9-17 years old). Unsurprisingly, the 1347 responses predominantly mentioned watching videos and YouTube, and listening to music. They also largely mentioned educational and other games (Fris, Fortnite, FIFA18, Clash Royale) as well as social networks (mainly Instagram, Facebook, Whatsapp, and Snapchat). Younger respondents were more likely to mention platforms for learning and researching for their schoolwork.

Some children and adolescents mentioned activities that may be classified as digital citizenship, along the lines mentioned above. They used the first person (*I, we*) as they recounted a personal or group experience, and their answers illustrated the relevance of the internet for associating with peers, forming their personal identity, and searching for quality information. Table 3 provides examples and indicates the respondents' gender, age and socioeconomic status.

Table 3 – Digital opportunities and related dimensions of digital citizenship

Digital opportunities for people of their age	Digital Citizenship
<i>Watching movies to study, putting pictures on the net I don't do that much, I prefer more music to dance, I love being with friends and cousins to dance and take pictures. (Girl, 11, Medium SES)</i>	Quality information Personal identity Associative practices
<i>Games. Sites with documentaries, social networking sites because it is always good for us to socialize with others and be well informed about what's going on around the world. (Boy, 11, Low SES)</i>	Associative practices Quality information Civic participation

<i>Charitable activities. Some activities where we learn more, among other things. (Boy, 11, High SES)</i>	Civic participation Quality information
<i>Listening to K-pop /Korean music, learning new languages and curiosities, reading / writing fanfics, learning choreography and doing research. (Girl, 13, High SES)</i>	Producing content Quality information Media Literacy
<i>Research for schoolwork on licensed sites. Watching videos on registered platforms. (Boy, 13, Low SES)</i>	Quality information
<i>News so that we increase our general culture, for example so that we are not closed off to the world... (Boy, 14, High SES)</i>	Identity Civic participation
<i>At my age, people start to leave their comfort zone, that is their local school, and they have to think about their future, even before choosing and moving to other schools, they can visit certain sites to see what school is right for them! It's also good for great research and to clarify doubts about certain subjects and school projects. (Boy, 14, Low SES)</i>	Context Personal identity Quality information
<i>All kinds of websites or even social networks are good for anybody at any age. And they can be used anywhere and anytime. We are always learning new things from the Internet. Even to get news from other countries. And they are great for talking to family members who are abroad or even a block away. For me the Internet is very important, without it I wouldn't learn so many new things! (Girl, 15, Medium SES)</i>	Digital access Quality information Associative practices Civic participation
<i>Watching documentaries, videos that make you think about subjects that normally cause controversy. (Girl, 16, High SES).</i>	Quality information Civic participation
<i>First of all, the world of information is just a click away, which makes knowledge more accessible than ever. Chats are also very important tools, because they allow you to keep in touch and to meet new people who are far away. Finally, the pirated content that allows young people, who we all know have no financial resources of their own, to access multimedia content such as films and series that they wouldn't be able to see otherwise. (Boy, 17, High SES)</i>	Digital access Associative practices Context Acting circulation

Source: EU Kids Online Questionnaire, 2018

Question QA3: What things on the internet do you think are good for people your age?

Stressing both access to the digital world (through hardware and available platforms) and subversive access to content, the last quotation is one of the few that mentioned youth's context, described in a collective way (*we all know*). Even when they came from privileged socio-economic families, young people presented themselves as part of an age group without the economic means demanded by the market.

None of the open responses pointed to opportunities arising from artificial intelligence, computational thinking or data analysis, areas that seem to have attracted little attention in Portugal to date.

4.2 Digital activities mentioned by young people in Portugal and Brazil

Taking advantage of the fact that, in 2018, similar questions were asked in Brazil and Portugal, results about citizenship practices were analyzed comparatively (Simões and Senne, in press). A common feature is the intensification of all use with age, as Table 4 demonstrates.

Table 4 - Online activities, by age groups, in Portugal and Brazil

% of those who have carried out the activity at least once a week in the last month (Portugal) and in the last 3 months (Brazil)	PORTUGAL		BRAZIL	
	9-12	13-17	9-12	13-17
I listened to music online (N= 1840, PT; N= 2964, BR)	78	95	61	78
I watched video clips (N= 1832, PT; N= 2964, BR)	85	92	65	76
I visited a social network site (N= 1823, PT; N= 2964, BR)	57	93	32	77
I played online games (N= 1838, PT; N= 2964, BR)	62	64	62	69
I used the internet for schoolwork (N= 1812, PT; N= 2964, BR)	42	64	53	71
I looked for news online (N= 1821, PT; N= 2964, BR)	30	58	28	59
I used the Internet to talk to people from other countries (N= 1815, PT; N= 2964, BR)	26	41	22	48
I participated in an online group where people share my interests or hobbies (N= 1813, PT; N= 2964, BR)	26	46	21	44
I looked for information about work or study opportunities (N= 1780, PT; N= 2964, BR)	40	50	4	40
I browsed for things to buy or see what things cost (N= 1824, PT; N= 2964, BR)	22	51	4	11
I looked for health information for myself or someone I know (N= 1808, PT; N= 2964, BR)	16	33	12	34
I created my own video or music and uploaded it to share (N= 1830, PT; N= 2964, BR)	13	17	23	52
I discussed political or social problems with other people online (N= 1818, PT; N= 2964, BR)	6	16	4	28
I got involved online in a campaign, protest or I signed a petition online (N= 1816, PT; N= 2964, BR)	5	9	1	7

Source: Simões & Senne (in press).

At the top we see references to listening to music, watching videos, and visiting social media, which may include different contents, as shown in Table 3. The use of the internet for schoolwork was frequently mentioned in the open-ended answers in regard to the ease and speed of searching for this information. The immediacy, however, can be at odds with digital literacy, defined as “the ability to find, interact, evaluate, create and reuse information” (Palfrey and Gasser, 2016).

Approximately half of teens in both countries mentioned three activities: searching for online news, chatting with people from other countries, and participating in online groups of people with similar interests and hobbies. All pointed to the need for information, association, identity, and cultural belonging.

In Portugal, almost half of the interviewees reported looking for news at least once a week, while fifty-three per cent of Brazilian respondents mentioned searching for news in the preceding three months. The rise in this digital practice can be observed in the historical series of the ICT Kids Online survey in Brazil, given that in 2013 only a third of users had reported searching the Internet for news. In addition to the rise in news consumption, other changes in the six-year interval included the growth of instant messaging, use of social networks, and watching videos. This may suggest that the use of these different platforms may have boosted news circulation (Simões and Senne, in press).

The search for information that motivated or interested respondents — searching for job or study opportunities and health issues — received similar response rates in both countries, above one third of respondents. While it highlights the empowerment of youth by quality information, two aspects differentiated the countries. More than half of Portuguese youngsters mentioned engagement practices linked to potential consumption, which suggested they were aligned with the digital economy; more than half of Brazilian teenagers reported digital creation and sharing which is linked to participation.

The issues explicitly related to civic participation — discussing political and social issues with others and participating in campaigns, protests or signing online petitions — were the least mentioned activities in both countries. The former showed a significant increase among Brazilian teens; the rate was almost double that of Portugal, probably due to the fact that 2018 was a year marked by particularly intense political activity in Brazil. Highly engaged political participation received almost residual values. Portuguese boys reported more interest in these issues than girls, while in Brazil there was a gender balance. Among the factors that may potentially explain the participation of young Brazilians in political debates may be the relatively greater contact with issues of discrimination and hate speech. In the ICT Kids Online Brazil study almost half of the girls (48 percent) reported having seen someone being discriminated against online, versus 38 percent of the boys. This may be explained by the fact

that identity and gender issues were at the center of online debates in Brazil at that moment (Simões and Senne, in press).

In Brazil the question on community engagement was: *“In the past three months have you searched the internet for information about what happens in the place where you live, on your street or in your neighborhood?”* About a quarter reported that they had searched for online information about their community, with the older cohort (15-17) reporting almost twice the number of searches as the youngest group (9-10). In Portugal, the question also included subjects or events present in the media and in online environments: *“How often do you look for news about your region, the country where you live, other countries, or about subjects and events that appear in the media (radio, television, newspapers or online, including social networks)?”* Forty percent said they had looked for information about their own region, country and the wider world at least once a week, or about topics of interest to them, both in traditional media and online. The values increased with age and were higher among boys.

These results point out the importance of acknowledging the digital practices of children and teenagers beyond their condition as students. As they take place in mostly informal environments, digital leisure, peer communication, and research practices undoubtedly involve dimensions of relational and cultural citizenship, as illustrated by the open responses above. How does today's school view this issue of citizenship?

5 SCHOOL AND CITIZENSHIP: THE PORTUGUESE SITUATION

In contemporary school systems, the Durkheim model of formal education still predominates, although the rhetoric of progressive education is present in pedagogical and curricular guidelines. In Portugal, it is visible in recent documents, such as those that define the student's profile after leaving compulsory education, curricular guidelines for citizenship training and the ICT curriculum that is mandatory between the 5th and 9th years of schooling.

5.1 Guidelines for digital citizenship training

Perfil do aluno à saída da escolaridade obrigatória de 12 anos [Profile of student completing 12 years of compulsory schooling] (2017) has a humanistic basis focused on educating for autonomy and the right to participation and brings together the two educational

discourses mentioned above. On the one hand, it is argued that the flexible management of the curriculum is based on “the joint work of teachers and educators” without mentioning the involvement of students. On the other hand, in the operational descriptors, a place of agency is assigned to the students, which seems to cancel out the mediating intervention of the teacher.

Estratégia Nacional de Educação para a Cidadania [National Strategy for Education for Citizenship] (2018) uses a more functionalist language when speaking of citizenship. Its purpose is to integrate “rights and duties that must be brought together in the citizenship training of Portuguese children and young people, so that *in the future they become civic minded adults* who support equality in interpersonal relationships, appreciate difference, respect human rights and highly rate the concepts and values of democratic citizenship (...).” (emphasis added).

Citizenship training in the Portuguese schools extends from kindergarten to that at the end of compulsory education. The curriculum is made up of 18 areas that are spread across the four years of the 1st cycle of basic education (6-9 years) and throughout the three years of secondary education (15-17 years). It is a separate discipline during the 2nd and 3rd cycles of basic education (10-14 years). Each of the 18 areas has Reference Guides and schools have the autonomy to establish its own strategy for citizenship training. Table 5 displays the 18 areas.

Table 5 - Scope of Citizenship Training in Portuguese schools

Areas	Domains
Compulsory areas	Human Rights (civil and political, economic, social, cultural, of solidarity) Gender equality Interculturality (cultural and religious diversity) Sustainable development and environmental education Health (health promotion, public health, food, physical exercise)
<i>Citizenship and Development</i> (2 nd and 3 rd grade (11-14 years))	Sexuality (diversity, rights, sexual and reproductive health) Media education Democratic institutions and participation Financial literacy and consumer education Road safety Risk
Optional areas	Entrepreneurship Work Safety Defense and peace Animal welfare Volunteerism Others

Source: *Estratégia Nacional de Educação para a Cidadania*; Portuguese Ministry of Education, 2018.

The Media Education Guidelines (2014) ranges from pre-school education through the end of secondary education and covers 12 themes, with activities suitable for different age groups. Most topics cover a wide spectrum of media functions, formats, production and use. Three topics point to issues of responsibility, literacy and civic participation: *Freedom and Ethics, Rights and duties; Media as Social Constructions; The Media and Us*. The latter focuses on expressive media production for participation and civic involvement.

The increasing awareness of the importance of Media Education in Portugal has led schools to enter projects in the bi-annual Literacy, Media and Citizenship Congresses, organized by the Informal Group of Media Literacy since 2011. This civic platform brings public education and communication entities together with academics and various professional associations. In addition to other media literacy initiatives, the minutes of the five previous congresses are available online to record the spectrum of participation of children and young people in media literacy projects both in formal and informal environments. Moreover, the recent Observatório Media, Informação e Literacia, MILOBS, [Media, Information and Literacy Observatory], at the University of Minho, already houses a repository of activities.

More institutional in character is the ICT curriculum in force in Portuguese schools which extends throughout all study cycles and is a mandatory subject from the 5th through the 9th grades. It is organized along four lines with different objectives, as detailed in Table 6.

Table 6 - Lines of the ICT Discipline in Portuguese schools (5th to 9th grade)

Lines	Objectives
Safety, responsibility and respect in digital environments	Adopting a critical, reflective, and responsible attitude in the use of digital technologies, environments and services
Investigating and researching	Drawing up research strategies and planning online investigation
Communicating and cooperation	Mobilizing communication and collaboration strategies and tools
Creating and innovating	Exploring ideas, developing computational thinking, and producing creative digital artifacts using digital strategies and tools to support creativity.

Source: *Aprendizagens essenciais TIC* | In conjunction with *Perfil do aluno à saída da escolaridade obrigatória de 12 anos*. Portuguese Ministry of Education, 2018.

The ICT curriculum includes items highlighted as digital skills grouped in Table 2. Particularly noteworthy are the items related to participation: digital literacy, content

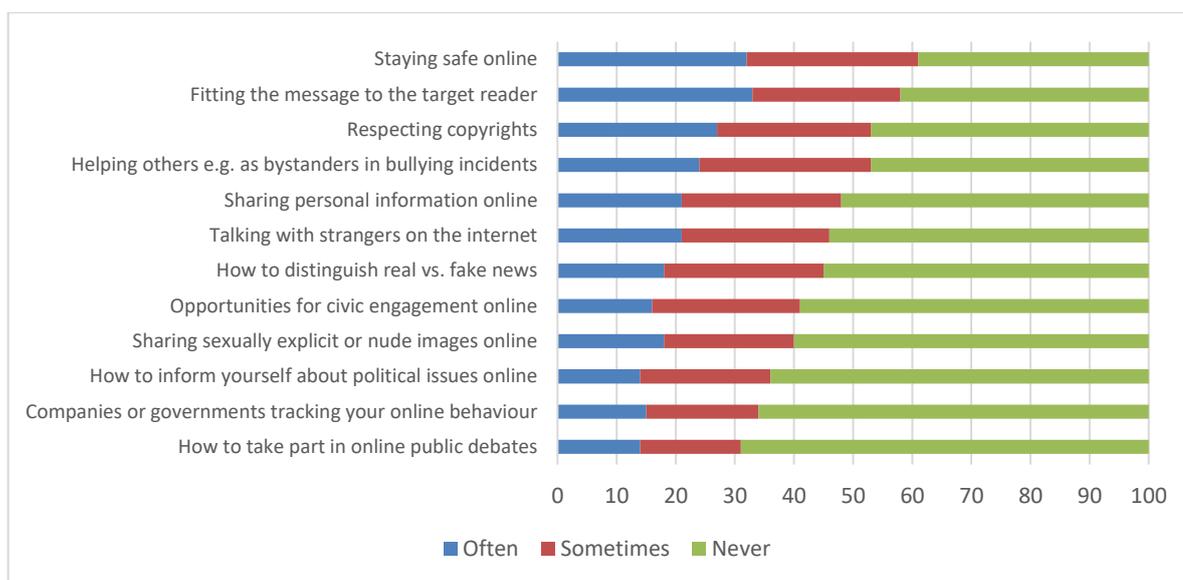
production, security and legislation. The curriculum regularly mentions training for security issues, rules related to copyright and identification of sources, the definition of appropriate keywords to locate information, and critical analysis of information quality. The networked and collaborative work takes place in closed digital environments in the first years (for students below the age of 13). From the 7th year onwards, “projects in articulation with other disciplinary areas and or fields of ICT, services and school projects, with the family and with regional, national or international institutions” are promoted.

The influence of Ribble and Bailey (2007) is visible in this curriculum, giving attention to digital rights and responsibilities, regulation and security, health and digital well-being. Although Dewey's legacy is referred to when the authors stated that “schools need to become mini-societies, reflecting the *real-life activities* of the students they teach” (Ribble and Bailey, 2007: XX, emphasis added), it also mentions ... a set of “codes of conduct that are equivalent to acceptable practices and appropriate behaviors that define responsible citizenship in the digital world” (Noula, 2018: 20), much more in line with the Durkheim’s legacy.

Looking at Table 2, it can be seen that the ICT Curriculum in Portuguese schools leaves out goals of digital citizenship such as analyzing digital data, contextual factors, digital economy, artificial intelligence and civic and political participation — objectives that link the digital world with those that are social, economic and political. Moreover, children and teenagers’ digital practices in their daily lives appear out of step with what this program stipulates. It is based on a perspective of citizenship that ignores their “real-life activities”, culture and their needs for socialization and information.

5.2 Evaluation of digital civic training received in schools

A question about digital civic training in the Portuguese survey included two items from the ICT curriculum — *knowing how to adapt a message to its recipient* and *respecting copyright* — which were added at the request of the General Directorate of Education (DGE), a partner in the study. Graph 1 shows the results of the question answered only by 7th to 12th grade students (13 to 17 years old).



Graph 1 — Digital citizenship training at schools

Source: EU Kids Online - Portugal Questionnaire, 2018.

Question M 3.2 - In the past 12 months, how many times have you received training at school on.

Safety behavior training was most frequently mentioned, followed by the two issues included at the request of the Portuguese General Directorate for Education, spanning the five years of the ICT curriculum, from the 5th to the 9th year. Safety, norms and ethical behavior were, thus, the most notable competences within the range surveyed. They were only ones mentioned by more than half of students as having occurred frequently or several times within the previous year. All are in line with the targets of the ICT curricula.

Less than half of Portuguese teenagers reported having received training on a recurring basis in school on skills related to privacy and reputation issues, despite these being part of the ICT curriculum. Training on the sharing of personal information, new contacts, and sharing sexual content and images was reported to have taken place frequently by about a quarter of students. These three figures slightly exceed those of IT skills, another line of the ICT curriculum.

It is worth noting that the dominant public discourse highlighting the dangers of meeting new people on the internet ignores young people's actual reality, where the vast majority of new acquaintances were made through mutual friends, in a socialization style typical of adolescence. Results from the European countries clearly revealed that this risky situation is by far considered to be an opportunity (Smahel et al., 2020: 98). European results also point to significant gender differences in the way youth react to seeing sexual images on the internet or

offline: while most boys reported high levels of either enjoyment or indifference, half of the girls recounted mostly discomfort (idem: 92).

The remaining questions regarding civic engagement — *Opportunities for civic engagement online* (e.g. participating in online discussions about doing things to improve the living conditions in your community, region or country) and *How to take part in online public debates* — were brought up by less than one fifth of Portuguese teenagers as having happened frequently in the previous year. Within this range is also the awareness of how companies or governments track online behavior.

In sum, results suggest a greater emphasis on digital skills related to technological security and individual accountability, in line with the normative and relational models of citizenship rather than the perspective of an empowered and critical citizenship.

6 CONCLUSION

When reviewing concepts of citizenship that have influenced pedagogical guidelines, we realize that the normative view continues to be dominant and that school culture continues to have difficulty in considering other cultures and their protagonists. The Harvard University report on digital skills was a valuable contribution to this systematization.

According to the dominant standard, the school tends to be a conservative institution, where one generation (of 'masters') teaches another generation (of 'the ignorant').

This frame takes place even in the case of digital technology, where young people have been at the forefront in gaining access to and reusing the potential of technology and surprising adults with their innovation and creativity. Their digital experience outside of school tends to be ignored or even stigmatized. There is a gap between what children and teenagers report as online opportunities (Table 3) and activities (Table 4), on the one hand, and what is set out in the school TIC guidelines (Table 6) and recognized as part of their training (Graphic 1), on the other.

If most of students' training has dealt with issues of personal safety, responsibility and respect as well as about intellectual property in digital environments, issues related to civic participation or awareness of datafication processes have received less attention.

Children are not born with social, informational, creative or the critical skills needed to deal with digital technology. Additionally, they also face different social contexts as they undergo their own processes of development. Therefore, the school — as a social space for democratization and citizen experience *lived in children's present* — should play an active role. The school should provide training based on human values, situating digital technology within the social context, thereby fostering students' critical sense and creative capacities that are not the mere result of the skillful handling of screens. An educational intervention should neither ignore the digital culture of the present and its challenges — nor neglect its multiple opportunities and underestimate the (often ignored) harm to full citizenship.

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GRADE

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