

Educating to Digital Citizenship: conceptual development and a framework proposal

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Abstract

This article discusses the meaning of digital citizenship and aims to outline a framework for an education that wants to develop it. The hypothesis is that two ages can be identified in the historical definition of the concept and that today there is a conceptual gap in this regard. With tools borrowed from media archeology and theories of technical innovation, the article moves on a theoretical level by discussing this hypothesis and coming to outline a first draft of the framework.

KEYWORDS: Digital Citizenship, Media Literacy, Digital Education.

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1. Introduction: Digital Citizenship and Education. A conceptual gap

This article's goal is to reflect on what the concept of digital citizenship suggests today to education in terms of redefining rights and duties, behaviors and values. Our hypothesis is that in this regard there is a conceptualization gap between the still widespread representations of digital citizenship and the way in which it is already concretely acted in the information society. In a few words, the digital citizenship that is the subject of educational discourses is no longer the same form of citizenship that people experience in their daily lives. The gap is between an idea of digital as a parallel world (the "Matrix model" of the "first age" of the concept) and as an extension of the world (the "Kingsman model" of the "second age", the current one).

In the first case, digital is thought of as something that goes hand in hand with the physical dimension and

from which one can enter and exit. In terms of citizenship, it finds expression in the theme of teledemocracy, of life on the screen (Turkle, 1997) and suggests the idea that we are called to live a dual citizenship, on and offline.

In the second case, however, digital becomes the ordinary reality of things, hybridizes objects, overlaps like a layer (Lanier, 2011) all the practices of individuals. This is the post-digital phase, the phase of onlife (Floridi, 2014) of platforms and algorithms, of machine learning. In terms of citizenship, it finds expression in the various forms of hybrid reality that invite us to think of a single citizenship of which digital is an integral part.

Focusing on this conceptualization gap, means for education to register some new challenges that the new idea of citizenship in the digital age is launching.

2. Materials and Methods: Media Archeology, Social discourses, Innovation

The verification of our hypothesis passes on the methodological level by adopting two points of view: that one of media archeology (Parikka, 2012) and that one of the theories of the diffusion of technical innovation (Flichy, 2003).

As for media archeology, it takes its cue from the Foucaultian approach to knowledge and the

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reconstruction of its trajectories (Foucault, 1969) as well as from an ecological approach to the media, started by the reflection of McLuhan (1964) and Postman (2006) and today, archaeologically, rediscovered and put in relation with the reality of mediatization, of which the environmental idea of the media proves to be a powerful descriptor. Methodologically, an archaeological study of the media foresees three moments: the identification of a topic concerning the present moment (1); the excavation of the past, supported by the awareness linked to that topic (2); the return to the present, to illuminate the problem from which we started through what was found in the past (3).

As for the theories of the diffusion of technical innovation, the merit of Flichy (2003) is to show very well how it, especially in the phase in which a new technology is launched, makes use of accompanying social discourses. The task of these speeches is to overdetermine the meaning of the new technology and, through this work of symbolic enhancement, make it perceive its importance, or inevitability. The outcome of this important discoursivization is the affirmation of technology which, once given meaning, will begin to be adopted, like a self-fulfilling prophecy.

These two methodological assumptions, in our reflection based on theoretical research, can be applied in two directions.

The first direction is the archaeological recovery of the discursive apparatus that accompanied the first phase of dissemination of the concept of digital citizenship. Through the analysis of some authors who lived and characterized that phase (in particular Pierre Levy and Derrick de Kerckhove) it is possible to identify the ideas that originally marked the idea of digital citizenship: transparency and the absence of mediation.

The second direction is the analysis of this type of discourse in the light of the distinctive elements of the current communication scene, marked by mediatization and platformization. The outcome is twofold.

On the one hand we realize that transparency, contrary to what one might believe following a postmodernist line of reflection (Jameson, 1984; Vattimo, 1989), does not necessarily represent the trait of a better society. This is explained by the analyzes of Han (2012) from which it is clear that transparency is not a condition of social peace and involves a loss of depth to the advantage of obscenity understood as a total and hyper-real exposure.

The other outcome is the affirmation of an idea of digital citizenship that is completely different from that one imagined by Levy and de Kerckhove: not another dimension, a space parallel to that of material life, but an experience perfectly integrated with it; not a utopian positive situation, but a structurally dialectical one and suggestive of provocations.

3. Results: Analyzing the gap. Two different narratives about citizenship in the Digital Era

Pierre Levy (2006), in the essay to which we refer, bases his reading of “cyberdemocracy” on the idea of omnivision, that is the new type of visibility that, according to him, was gaining ground thanks to the spread of the Web and digital media: seeing all, being able to choose the direction of one’s gaze [Levy’s essay, like that one of de Kerckhove, is contained in a 2006 book, edited by de Kerckhove himself and by Antonio Tursi, which fixes and develops the themes of a conference entitled *Cyberdemocracy or postdemocracy?* which took place in Rome in April 2004 and was organized by the School of Communication of the La Sapienza University and by McLuhan Fellows International. In a book entitled just *Ciberdemocratie*, Levy (2002) had already focused on the themes that he summarizes and relaunches in this essay.]. Levy associates two distinctive characteristics with this kind of visibility: universal indexing and hypericonicity. Universal indexing means that everything points towards everything, that everything is tracked. The hypericonicity, on the other hand, alludes to the data of a single large image that contains all the other images: a fractal image that can be explored interactively at different levels of depth. On this new visibility, on these characteristics, a new idea of the public sphere is developed; according to the French philosopher, it would have been more inclusive, more transparent and, precisely for this reason, universal.

Cyberspace is more inclusive because it allows everyone to express their views and makes information more easily accessible. This possibility affects the transparency of society by changing it in the direction of what is now called de-mediation, or disintermediation. Levy writes: “Now ordinary citizens can, if they so wish, bypass journalists, doctors, lawyers, teachers or politicians and obtain political, medical, scientific or legal information for their own purposes” (de Kerckhove & Tursi, 2006, p. 11, our translation). And universality alludes to a system of communication without borders, multicultural, translinguistic, capable of breaking down and overcoming the borders between states.

de Kerckhove (2006), in his essay contained in the same book, returns to some of the themes of Levy’s reflection and amplifies them. He takes up the theme of the “symmetry of freedom of expression” and brings it back to the question of transparency: where communication is more vertical, where the flow of information is controlled by a few people, it is easier for opacity to prevail that is to choose not to make everything clear; on the other hand, where communication is horizontal, it is also transparent and more open to collaboration.

This transparent communication also shapes the idea of the State. The digital State (de Kerckhove speaks about

e-Government, indulging in an orientation of those years in which the suffix e- was frequently placed before nouns and adjectives to redefine them) is a “light” State, without bureaucracy, without ideology; it is a “naked” State. Tapscott & Ticoll (2003) speaking of naked corporations refer to organizations that “say what they own”: «They will look stupid, besides the fact that they will risk one of the main capitals: their reputation» (de Kerckhove, 2006; 65). As for Levy, the result is to link this transparency to a model of society conceived as a multicultural space of coexistence and tolerance: once again, horizontality and transparency suggest a little conflictual reality, the overcoming of borders points in the direction of dialogue and not of the confrontation.

From this brief analysis of the two essays from which we started (which can be considered to be representative of the totality of the speeches that were made in those years on the subject of cyberdemocracy), an idea of digital citizenship built on certain characteristics and skills of the citizen emerges:

- the habit of discussion and public debate. In the same years, the idea of the internet as a New Areopagus, as a New Agora, made its way: this is the theme of the Assembly of the Demos, in which the Greeks could speak directly, without intermediaries;
- the communication and intellectual skills functional to the New Economy and its needs. These are what are now called digital skills and are still presented as a passport for entry into the Information Society;
- the responsibility that is required by having to manage a wider freedom of expression and greater access to information. If there are no longer any intermediaries and if vertical control fails, it is clear that this void must be filled by the responsibility of individuals from a self-regulatory perspective;
- but above all, the idea that is derived from it is that one of a cyberdemocracy as a second dimension that is added (and it is hoped that it will be able to replace) the “real” one: I am a citizen of a State and, thanks to the internet, I am also Citizen of the Net. What is emerging here is the model of a dual citizenship: internet, digital, as a passport to access another civil and political reality, in some way an alternative, indeed an improvement, to the current one.

The developments in communication in the last twenty years allow us to think from an archaeological perspective on the theoretical themes that we introduced following Levy and de Kerckhove.

Today we are experiencing the “fourth wave” (Colombo, 2020) in the development of communication technologies; this is marked by the advent of Web 2.0 and platforms (Van Dijck et al., 2018). The outcome of this fourth wave is a redefinition of the meaning and role of the media, which are no longer isolable from the

contexts and practices that concern them. The “digital surround” that characterizes our societies means that the media are around and within us, “everywhere and everywhere”, as Adam Greenfield (2006) effectively suggested talking about Ubiquitous Computing.

The resulting society, an algorithm society, can be described at three levels (Eliott, 2019): technical (measurability); economic (the value); philosophical (artificial life).

On a technical level, it is a datafication society in which census, tracing and measuring become the functions of a real dictatorship of calculation (Zellini, 2018) which elects efficiency as the main category. On an economic level, this society is an information society in which value is data and a new form of digital capitalism is emerging (Zuboff, 2019; Eugeni, 2021); it builds its wealth on tracking the activities of individuals. Finally, on a philosophical level, this is a code society (Accoto, 2017) in which software dictates its conditions of thinkability to the world by replacing the opposition between real and virtual with that between the material and the programmable. The new phenomenon is the generativity of information technology: the code transforms the sense of place, modifies the experience of time, produces forms of artificial life.

As we understand, all this impacts on the conceptualization of digital citizenship. In fact, if in widespread discourse media and AI continue to be related to globalization and geopolitics, the present and future way of thinking of society itself in relation to the presence of the media changes radically.

Platformization and datafication highlight the risk of reducing freedom and privacy, of damaging trust in public institutions, of aggravating inequalities and divisions. If in the “early age” of digital citizenship, as we have seen, the idea associated with the development of the internet was rather that of an expansion of opportunities and of an enhancement of diversity, today platforms definitely aim at controlling intermediation and therefore the progressive orientation of behaviors and points of view in a single direction. The predictive analysis of algorithms is in fact prescriptive: they help us to determine the causes and consequences of our lives, but we are not really autonomous in our choices.

Again, as Turkle (2011) already suggested, the new communication scene is emptying emotional ties and requires a new psychology of commitment. The third level of technological mediation (Florida, 2014) thins the boundaries between biological life and artificial life and datafication tends to impose a new way of determining the value of the persons on the basis of the data they carry (Quantified Self).

As we understand, the way of thinking about digital citizenship changes. It no longer identifies the act of civilized living within a parallel, more transparent and less ideological space; digital has developed not in a world apart, but “inside” our world and has certainly brought opportunities, but without the optimistically

anarchic connotations that were thought of in the early 2000s. Today digital citizenship is simply citizenship, no more: the adjective digital has become superfluous, because it constitutes our idea of citizenship from within, modifying it and at the same time makes it something much more complex. Understanding this gap and thinking about the lines of education for this new condition of our civil life becomes an urgent task, which cannot be avoided precisely for the purpose of a correct development of this same idea of citizenship.

4. Discussion and Conclusions: Educating (for) Digital Citizenship

We begin to identify what is not working when we think to what it means educating for citizenship in the digital age. We can say: two strategies, there are two strategies that don't work.

The first consists in trying to keep the two citizenships separate, in not recognizing that digital surround role that makes it indistinct from our ordinary life. Indeed, building citizenship, in this perspective, means educating not to let oneself be "taken" by the digital. This line includes all the technophobic and Luddite options in contrast to technology, the radical option solutions for a digital free life, with the imprint of digital detox. As Elliott (2019) very aptly points out, these solutions are today's analogue of fast weight loss programs. The promise is to reduce digital addiction, but the result is often an intensification of this same addiction. In a world hybridized by the media, it is not possible to detoxify nobody from digital life. For better or for worse, digital technologies are omnipresent in contemporary society. Not recognizing it means refusing to think about contemporaneity.

The second strategy consists in translating citizenship into a system of skills and then reducing its development to a set of boxes to be ticked, as happens in *DigComp*. Behind this solution operates a neo-functional assumption that conceives the role of education in terms of social adaptation: building citizenship in the digital age would mean, then, promoting the development of those skills that make it possible to live and produce within a society characterized by the protagonism of digital. Many public policies and many institutional discourses push in this direction. What is not liked about it, is the complete absence of critical distance, the risk of homologation to the mainstream of thought, the dependence on the indications of the productive world. So, what could (digital) citizenship consist of today?

The background is certainly less optimistic than that of the "first phase" and presents a clear transition to the level of facts. Building citizenship, in this context, means realizing that technological development has now crossed all three thresholds identified by Jacques Ellul (1980a; 1980b) to set its limits. The first

threshold-limit is that of the totalizing reach of the media: pervasiveness and mediatization today say, from a media ecology perspective, that this threshold has been exceeded. The second threshold is linked to the power of the media to change behavior. Also in this case, what was said above about the power of algorithms and the importance of datafication indicates the overcoming of this second threshold as well. The third and final threshold relates to the disappearance of technology as an autonomous field. It is a classic theme of cognitive ergonomics and computer design; it dates back to when Donald Norman (1999) was already writing about the "invisible computer" and to the thesis of Dertouzos (2001) according to which the information revolution could only be said to have been completed when the computer disappeared as a device.

It is from this scenario that we need to imagine a framework for the definition and practice of digital citizenship today. It seems to me that this framework can be organized around three dimensions; each of them takes into account the awareness of some attention, the appearance of new "rights", the development of certain skills.

The first dimension is the critical one. It is the dimension of alphabets, of language (Rivoltella, 2021). It is a traditional dimension for Media Literacy, always struggling with texts to produce an intelligent reading, with respect to which to develop awareness.

Today, with regard to this aspect, some attention is required, specifically at least two. The first attention is to an increasingly self-referential information reality, which tends to eliminate the difference between the referent and its representation, with the result that realities and discourses overlap and merge, making it difficult to certify sources and to define truth (post-truth). The second attention is instead for data and algorithms. The novelty here is that they are not visible and have no textual form: that is, the two characteristics that traditionally had always made media analyzable disappear (Rivoltella, 2022)

In terms of citizenship, the right that certainly imposes itself is the right to transparency understood as explainability, or rather as: the possibility of reducing the opacity that normally surrounds data and algorithms by rebalancing the asymmetric power (Zuboff, 2019) that distinguishes the relationship between who owns the platforms and who accesses their services; but also as an opportunity to establish a hierarchy between sources, to distinguish between facts and speeches, to certify the reliability of information.

As we understand, specific skills are needed: knowing how to analyze content, knowing how to search and sift sources, not conforming to the opinion of most people (as happens in the echo-chambers of social networks), knowing how to protect own data.

The second dimension is the ethical one. It is the dimension of responsibility and resistance. Compared to traditional approaches to Media Literacy and the

A FRAMEWORK FOR DIGITAL CITIZENSHIP

Dimensions	Attentions	Rights	Skills
<i>Critical</i>	Autoreferentiality, Post-Truth, Invisibility, A-textuality	Transparency, explainability	Content analysis, searching and evaluating information sources, keep safe our own data
<i>Ethics</i>	Public and individual ethics, social responsibility	Accessibility, identity, digital address	Acceptance, mediactivism
<i>Aesthetics</i>	Audiovision, stereotypes	Originality	Taste, creativity

Table 1 - A Framework for a Digital Citizenship Education: Attentions, Rights, Skills.

construction of digital citizenship, here we move from working on the citizen as a spectator, to working on the citizen as a spectator and author at the same time.

In this case there are, once more, at least two attentions that are required. The first attention is to the fact that public and individual ethics end up coinciding. At the time of television, the call to responsibility concerned broadcasters: any violations of the self-regulation code involved reporting users to the Communication Authority who could order sanctions in response to these violations. Today the simple fact of owning a device connected to the network calls the individual user, even if he/she is a child or a teen, to the same responsibilities. The second attention is instead not to restrict the problem to individual responsibility: we are not only responsible for ourselves, but also for others. Here we have a transition from responsibility to resistance (Rath, 2017).

There are different forms of law attributable to this dimension of citizenship: the right to accessibility (we realized during the pandemic lockdown how much this is needed); the right to identity and digital domicile.

Once again, specific skills are needed: knowing how to estimate the effects of one’s actions, practicing hospitality (Silverstone, 2006) and responsibility, being mediactive and that is, with Sadin (2015), knowing how to exercise an “active intolerance”. But the responsibilities of companies in terms of visibility of algorithms also need to be solicited, as the *Stanford Report on Artificial Intelligence* (<https://aiindex.stanford.edu/ai-index-report-2021/>) asks, so that middleware solutions can be set up that can respect users’ freedom of choice.

The last dimension is the aesthetic dimension. It is the dimension of taste and balance. It is a dimension that has been neglected in traditional approaches to Media Literacy and which instead is regaining its space today in a time in which perception and layout have found their absolute centrality.

I would like to point out two attentions in this case too. The first attention asks to shift the focus of the analyzes

from the materiality of the texts to the perceptive experience of the consumer. More than in audiovisual, today we are interested in audiovision (Chion, 1994). It is the perceptive acts of seeing and hearing (as well as that of touching and being touched) that are solicited and call for the need for reflection, just as has always happened in the aesthetic theories of reception (Iser, 1978; Jauss, 1982a; 1982b). The second focus is on stereotypies. The public’s taste is guided by media models and this makes it difficult to free the creativity of expression through the media so that it does not depend on the most widespread mainstream models: those who do creative work with teenagers know this particularly well.

The right to authenticity, to originality, to dispense with the connection at all costs, not to conform to the logic that guides consumption, finds space here.

Developing skills to guarantee this right means knowing how to appreciate the quality layout, expressing oneself in original and pleasant forms, knowing how to recognize beauty, as Sadin still says (2015), inventing oneself relentlessly, making one’s life a work of art.

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