

For a pedagogy of the archive: knowledge production and dissemination in the digital culture¹

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Abstract

Today, the archive is no longer limited to a physical space controlled by those who own the production and reproduction of knowledge, since it becomes a kind of cultural impulse, to the extent that people archive themselves by means of an incessant flow of information sharing in social media. Following this line of thought, it is the purpose of this article to reflect on the philosophical-educational presuppositions of the pedagogy of the archive, in the society in which surveillance capitalism determines the ubiquitous digitization of human relationships and, therefore, the production of the information that will (or will not) be archived and propagated on the Internet. To that end, the methodological approach that was chosen involved analyzing texts of researchers such as Featherstone, Livingstone, Kellner & Share, Beer, Van Dijck, Poell, De Vall, Buckingham, Zuboff, Flynn and Manovich, whose studies focused on resignifications of self-archiving in contemporary society. In the society of digital memory, in which it becomes possible to remember everything, new forms of forgetting are produced as compiled information is decontextualized to the point of becoming fake news. Given this scenario, it becomes imperative to conduct the historic contextualization of digitally produced information. More than ever, it becomes necessary to recover and understand the causes of events digitally disseminated, particularly in order to foment moral engagements aligned with the act of self-archiving as an augmented formation (*Bildung*) experience in the digital culture.

Keywords

Archive – Digital culture – Formation – Pedagogy of the archive – Half-education.

1- This article was written with support from the National Council for Scientific and Technological Development (CNPq). Research Productivity Grant, proc.309203/2021-0

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<https://doi.org/10.1590/S1678-4634202450268648en>
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Introduction

In times of hegemony of the digital culture, one question gains ever more prominence: given the continuous production and dissemination of algorithmically obtained data, how is it possible to produce, store and disseminate knowledge? Doubtlessly, the basic premises of this question are not novel, as seen with the trajectory of accumulation and storing of knowledge produced as early as in the famous Alexandria Library by the Greek king Ptolemy in the 3rd century BC. Just as well-known was the beginning of its destruction in 48 BC, ordered by Julius Caesar, as well as the looting committed over the 2nd century which virtually obliterated its collection.

Another significant moment in the history of the destruction of library collections occurred at the Institute for Social Research in Frankfurt am Main, Germany, whose library and its more than 40,000 books were totally destroyed during the Nazi rise. Precisely these irreparable material losses contrast with the production, storage and dissemination of data in the so-called virtual “clouds”, with the possibility of perpetuating such data *ad infinitum* without any concern that they might irremediably disappear, which break loose, so to speak, from physical space limitations. Given the current scenario of digital production, storage and dissemination of information, there is a profound alteration in the spatio-temporal liaison that allows them to interrelate so that knowledge itself can be engendered. For example, when digitized spaces, such as airline check-in desks, go off-line because of some technical problem, in a sense, they cease to exist physically. Also, when people in their automobiles are no longer connected, due to some failure in the Waze application in a city the size of São Paulo, many prefer to park their vehicles and wait for their internet connection to be restored so they can regain spatial orientation. Thus, in this case, streets cease to be a non-place only when they are virtually connected, when computational codes reconfigure their own relationship with physical space.

In this brave new digital world, information storing via virtual archives entails profound transformations in the educational process as archiving has turned into a kind of cultural impulse. Given this observation, the goal of this article is: to reflect upon the philosophical-educational presuppositions of the pedagogy of the archive, in the society where surveillance capitalism determines the ubiquitous digitization of human relationships and, therefore, the production of the knowledge that will (or will not) be stored and propagated. Methodologically, these presuppositions are reflected upon using texts by scholars such as Featherstone (2006), Livingstone (2010), Kellner & Share (2008), Beer (2013), Van Dijck, Poell & De Vall (2018), Buckingham (2019), Zuboff (2018, 2019), Flynn (2020) and Manovich (2020), whose studies focused on the resignifications of self-archiving in contemporary society.

Today, it is already possible to observe signs of radical change in the relationship between knowledge production and educational practices in a society where people's lives are increasingly digitized, hence the relevance of reflecting about the philosophical-educational bases of the pedagogy of the archive. At this moment, it is important to observe that the mention to a pedagogy of archiving-related engagement was made mainly for two purposes, namely to encourage practices of storage and dissemination of knowledge in a more sustainable way, precisely because they are digital, and to bring about relationships

between teachers and students founded on more frequent interactions on account of the production of hypertexts (Flynn, 2020). While these purposes are important in relation to the educational dimension, it is necessary to reflect on the philosophical-educational presuppositions of the so-called pedagogy of the archive in the society in which the act of self-archiving becomes the impulse that consolidates the new ontology of the digital culture: being means archiving and propagating oneself widely through electronic media into virtual space.

The Impulse to self-archive virtually as a guarantee of physical existence

There is a short story by Jorge Luís Borges (1899-1986) which can be read as a metaphor absolutely appropriate for the meaning of storing and producing data in the digital culture, namely *The Library of Babel*. In alluding to the mythical tower, built in order to reach the sky, and the divine reaction to confound its builders by giving them different languages, whose respective lexicons and grammars should be kept by the groups spread across the world, Borges conceives the existence of a library, called universe, composed by “an indefinite, perhaps infinite number of hexagonal galleries “[...] From any one hexagon, one can see the lower and upper floors: endlessly” (Borges, 2021, p. 68). In this infinite space, huge volumes of books are grouped which do not repeat and can be read indistinctly in all languages, precisely because they are made of elements common to all: space, period, comma, and the letters of the alphabet.

Besides characterizing the infinite space of the library, time, one of the basic mysteries of humanity, according to Borges, could also be clarified by means of words. And even if the language of philosophers is not fit for nominating definitely the meaning of time, “the multiform Library will produce the unheard-of language necessary and the words and grammars of this language” (Borges, 2021, p. 74). In writing this admirable short story in 1941, Borges could not have pictured the kind of transformation that the spatio-temporal nexus would go through in the society whose productive forces, especially those of a technological nature, allow for objects to communicate with each other to the point of interpreting the information compiled and generating new data in each field of human knowledge (Koopman, 2019).

In the same way as the infinite library imagined by Borges is capable of producing a new language so it can nominate the characteristics of time, objects connected to the Internet of Things (IoT) are capable of exchanging information online, making it possible not only the interpretation of data, but also the development of forms of predicting behaviors derived from how people access, store and provide their personal data every time they click on the buttons in their electronic gadgets, especially their cellphones (Miorandi *et al.*, 2012; Greengard, 2015; Schönberger; Cukier, 2017).

From the mythical Tower of Babel, whose story was narrated in the biblical Genesis, to the creation of Hypertext Markup Language (HTML), the web language that allows reading practically any virtual document in any computer and transmitting it online, one notes a concern with enabling the compilation and conservation, for whatever purposes, of information obtained over social relationships. Precisely in the concern with producing

and conserving the information that would be turned into knowledge the hegemony of certain groups became evident. In the ancient Assyro-Babylonian civilization, for example, priests were identified as the depositories of words, “the ones who knew the technique of reading and writing, in the two cultures and languages that fed the country’s life (Sumerian: a language of culture and cult; Akkadian: a language of everyday life and communication)” (Cambi, 1999, p. 65).

In the role of depositories of the words considered cultivated or vulgar, it was the priests that dominated the social codes in which the relations of power of one group over the majority were materialized. At this point, it is inevitable to recall Derrida’s words about the etymology of the word archive: *Arkhe*, which designates both beginning and command. This word coordinates concomitantly the beginning of things and “the beginning of the law *there where* men and the gods command, *there where* authority and social order are exercised (Derrida, 2001, p. 11). The control over the production and reproduction of information can also be observed in the Middle Ages, particularly in the figure of copyist monks, who decided, in reproducing philosophical texts from Greco-Roman antiquity, which ones would have their context faithfully reproduced, and which would be adulterated according to the interests of the Catholic Church. However, with the advent of the press, created by Johannes Gutenberg (1398-1468) in 1439, begins the revolutionary period of producing, reproducing and storing information that, centuries later, will enable the structuring of a kind of educational process that will consubstantiate, in a novel form, with the possibility of making citizenship universal. But the bond between information production and storage, formation (*Bildung*) and citizenship will not take place spontaneously, as though it were an inevitable historical outcome. It will happen in the society of the bourgeois rule-of-law state: the state in which the aspiration prevails that, despite having to sublimate their impulses, due to living in a collectivity in the process of enlightenment (*Aufklärung*), in the words of Kant (2005), the morally educated individual would become “free and rooted in their own conscience” during public everyday interaction (Adorno, 2010, p. 13).

It is interesting to observe how Kant (2005) solves the apparent aporia between the private and public uses of reason, in his text *An Answer to the Question: What is Enlightenment?*, written in the late 18th century: if in the particular condition of a priest, for example, an individual should submit to the sequential order of a mass, on the other hand, in the condition of a literate individual, a citizen of the world, they not only can but should, if it is the case, object to the rules they are subordinated to in exercising their role as a priest for the sake of improving the religious institution itself. For Kant, this individual acts contrary to the duty of a citizen if, as an educated man, they do not “expose publicly their ideas against the inconvenience or injustice of these impositions” (Kant, 2005, p. 66). Precisely the publicization of such ideas by a literate individual was highlighted by Habermas (2014) as follows:

That public which may be considered the subject of a bourgeois rule-of-law state also understands its sphere as a public sphere in this strict sense: in its ponderations, it anticipates, initially, the belonging of all human beings. The private individual man is also just a human being, that is,

a moral person [...]. however, the public has acquired its very well determined form: it is the bourgeois reading public of the 18th century. This public sphere remains literary even when it assumes political roles. (HABERMAS, 2014, p. 232).

In fact, being educated and being political, in the sense of being an intervener, intermingle in an ontology that confirms the social condition that every social relationship would increasingly be determined by the internalization and reproduction of the logic of the commodity fetish. It is at the birth of the cultural industry of the 18th century with the so-called cultural products, discerned in the publications of personal dramas in the form of books and letters on newspapers, that the public literary sphere takes on the political role of affirming the production relations founded on the unconditional defense of private property. As the capitalist mode of production takes on its hegemonic condition, given the way in which the relationships between its productive forces and its production relations develop, news itself becomes a commodity: “The circulation of news does not develop only connected to commodity circulation needs: news itself became a commodity” (Habermas, 2014, p. 126).

Producing ‘news’ about oneself, a *sine qua non* characteristic of the current society of the spectacle, producer of the digital culture, has its embryonic process when the productive forces allow, through its process of technical reproducibility, driving the individual to materialize their mnemonic capacity to the point that they can self-collect through physical archives. According to Freud (2010), with the photographic camera, the human being “created an instrument that keeps the fleeting visual impressions, which the gramophone also does to the equally transitory sound impressions; ultimately, both are materializations of his remembering faculty, his memory” (Freud, 2010, p. 51). In this case, the materialization of memory, through the technological apparatus of the photographic camera and the gramophone, allowed making fleeting images and sounds cease to be so, thereby *remaining* culturally in the form of photographs and discs. It is precisely this permanence that has enabled the accumulation of visual and audio mnemonic records, so that given the process of technical reproducibility, art’s very function gradually moved away from its ritualistic moment of cult and became political.

Not by chance did Walter Benjamin defend, already in the mid-1930s, the need for the proletarian to be able to see and be seen in films as one of the conditions of confirmation of their individual and class identities. That is why as early as in the first decades of the 20th century, this Frankfurt thinker affirmed that “cinema is, also from this perspective, the currently most important object of that science of perception that the Greek called esthetics (Benjamin, 2010, p.209). Thus, cult value literally left the scene, while in its place came gradually the value of exposition not only of art, but likewise, the affirmation of the ontology of being meaning being perceived (Türkce, 2010). Being meaning being perceived begins to constitute itself ontologically as the spectacular exposition of oneself is encouraged in culture, whose technical reproducibility makes it susceptible to accumulation via the products fabricated through its industrialization process. Georg Simmel (1997) clearly noticed this movement, in the first decades of the 20th century:

Here emerges the problematic condition typical to modernity: the feeling of being surrounded by a huge number of cultural elements, which are neither meaningless nor deeply meaningful to the individual; elements that possess an overwhelming quality as a mass, inasmuch as the individual can neither assimilate internally each particular object nor simply reject it, given the fact that this object potentially belongs to the sphere of their cultural development. This fact could be characterized as the exact reverse of the saying: *nihil habentes, omni possidentes* (we have nothing, we possess everything) which characterized the blissful poverty of the early Franciscan in their absolute liberation from all the things that would tend to divert the soul from its path, such that those things would indirectly transform it. To the contrary, in an affluent and overloaded culture, people rely on the saying: *omnia habentes, nihil possidentes* (we have everything, we possess nothing)." (Simmel, 1997, p. 73).

Spiritual impoverishment, which takes place when people do not substantially experience objects in the sense of exacerbating their ethical-moral attitude, spreads over a culture whose abundance of goods is tied to the promise that, through continuous consumption, it will be possible to find complete happiness here and now. In reflecting about how the logic of the cultural commodity fetish penetrates in the innermost sphere of the individual, in their soul, so to speak, Adorno (1986) affirmed: "each product presents itself as individual: individuality itself contributes to strengthening ideology, inasmuch as it arouses the illusion that what is objectified and mediated is a refuge from immediacy and from life" (Adorno, 1986, p. 94).

In this context of 20th century cultural industry, the products that appeared to suit the particularities of each individual, but were actually massified and standardized from their conception, already demanded both the classification of consumption groups and constant storing, to feed back the illusion that absolute pleasure and happiness would be obtained through persistent consumption. It was necessary to consume and store more and more in order to feel relief from having to live continuously with one's own emptiness. But this false cooling of the visceral feeling of deprivation, amid a culture overloaded and abundant with objects, in Simmel's (1997) view, cannot be compared with the feeling of emptiness in a culture whose digitization of lives imposes the inevitability of self-archiving as a condition for affirming one's own physical existence. It is in the society of the microelectronic revolution that the need to self-archive and make information available in social media, whether voluntarily or not, becomes a "powerful impulse in contemporary culture" (Featherstone, 2006, p. 595). Consequently, the need to self-archive is reconfiguring the individual's identity contours in following manner:

People's lives have come to be seen as singularities. They are identified and individualized through their records or archives, which are stored in series. Indeed, self-archiving has become a new form of power based not on the ideology of individualism, but on the reality of individuation, just like entire populations whose bodies and life stories become documented, differentiated and recorded in archives. (Featherstone, 2006, p. 592).

This reality of individuation, whose shape is routinely outlined every time we click on any word in the search mechanisms of digital platforms, including the mistakes, affirms itself categorically in a specific social context: surveillance capitalism, in which information is algorithmically collected, filtered, stored, classified and interpreted. Instead of the *personalized massification* of the cultural industry of the mid-20th century, through which people were grouped according to their respective consumer profiles in the maps of research institutes (Adorno; Horkheimer, 1986), in the current society of big data, the so-called *massified personalization* predominates. For it is the algorithms that enable the compilation and storage of people's most intimate idiosyncrasies into gigantic virtual databases, so that products are presented to consumers even before they search for them on the Internet. Today, the Big Other figure prevails, represented by an algorithmic digital architecture that "records, modifies and commodifies everyday experience from the use of an appliance to their own bodies, from communication to thought, all with a view to establishing new pathways for monetization and profit" (Zuboff, 2018, p. 43-44). As a consequence of this process, the Big Other "combines the functions of knowing and doing to set up a penetrating and unprecedented means of behavioral modification" (Zuboff, 2019, p. 379). Obviously, this behavioral transformation, which continuously exacerbates the digital culture ontology in which being means being perceived widely through electronic media via digital archives, by amalgamating the functions of knowing and doing, incites decisive modifications in the educational sphere. And in order to enable an understanding of these changes, it is relevant to investigate the way in which being perceived widely through electronic media becomes being perceived through self-archiving digitally, a fact that calls for reflection about the philosophical-educational presuppositions of the pedagogy of the archive.

The pedagogy of the archive: philosophical-educational presuppositions

One of Theodor W. Adorno's (1903-1969) best-known texts on the sphere of education is titled: "The Theory of Half-Formation". Conceived in 1959, the Frankfurt thinker presents his reflections on how formation (*Bildung*) is historically turned into its mortal enemy: half-formation (*Halbbildung*). Instead of the formative experience, which is founded on the individual's continuous reflection about how their identity consolidates ethically in the spatio-temporal relationship established with themselves and others, in comes half-formation, which rests on an "informative state that is point-like, disconnected, interchangeable and ephemeral, and which one knows will be blurred the next instant by other information" (Adorno, 2010, p. 33).

In identifying the prevalence of the point-like, disconnected, interchangeable and ephemeral informative state as one of the pillars of half-formation in the context of the cultural industry of the late 1950s, perhaps Adorno himself would be surprised at how that insight was reinvigorated in the digital culture society, under the predominance of the production and dissemination of fake news. It is in this society, in which anything

can be remembered, that new forms of forgetting are developed. The analysis of this contradiction is based on the fact that if nowadays it is possible to access information at any space and time, it is precisely the forms of access, exposition, dissemination and archiving of such information that cause its tendency to become absolute data, perpetual presents separated from the forgotten meditations that engendered them. The news that is most exhibited, and therefore accessed, will be the news whose algorithms of Google's search mechanism, for example, will select and present to internet users right on their first internet page, since the algorithms of these mechanisms are capable of "adjusting the parameters of patterns, which we may call models – through performance criteria defined in relation to the data" (Alpaydin, 2016, p. 24-25).

Consequently, the more fake news is accessed and reposted in social media, the more it will tend to be considered as an absolute, as unquestionable truths. It is thus that half-formation reinvigorates itself in the context of today's cultural industry. For indeed the new presents perpetuate themselves algorithmically through the accessing and reposting of news that is considered as unquestionable truths, but is actually of interest of extremely powerful groups and which, at times, ally themselves with fascist, far-right agenda.

However, the so-called new participation structures (Beer, 2013) are not limited to the production and reproduction of fake news. If internet and social media users are consumers and producers of false news, they can also make use of the same processes of accessing, filtering, classifying, archiving and interpreting information according to its respective historical context. To that end, it is necessary to consider the way in which the current production of virtual archives reshapes mnemonic capacity itself, which is essential for the process of turning pieces of information that dialogue with each other into lasting mental representations, and therefore concepts.

Indeed, the power of the act of self-archiving affords memory a new shape, particularly when biographies and history itself "are told through documents which do not exclude or include" (Beer, 2013, p. 47). Consequently, in the society of surveillance capitalism, the digital information that is connected worldwide exacerbates its value mostly in the form of commodity, while "information that is not connected, and therefore not archived in any way, "does not differentiate from information that is simply forgotten" (Schönberger, 2009, p. 81).

It is interesting to observe the reactions to the overdose of information that is ordinarily provided, archived or excluded through the Internet. Given the possibility of coexistence with digital memory, which can freeze experiences, so to speak, to the point of reproducing them in the forms of presents which are infinitely eternized, Schönberger (2009) argues for the need to recover the human ability to forget. To that end, he recalls another short story by Borges titled "Funes the Memorious", where the Argentinian writer narrates the curse of Funes, who simply has the power to eternally memorize details of everyday life (Borges, 2012). In other words, he is unable to forget anything at all.

By not forgetting anything, Funes proves incapable of either forgiving, as if resentment were also eternalized, or generalizing, since he becomes mnemonically imprisoned by details. And if we are a kind of Funes, since digital memory extraordinarily enhances the power of organic memory, so to speak, then it would be fundamental to promote the following procedure, according to Schönberger (2009): if people are

convinced of the importance of the faculty of forgetting, “they will cease provide their personal information to others, and digital memory will cease to exist, at least in its more overarching and threatening form” (Schönberger, 2009, p. 129).

Defending this type of digital abstinence has its merit, mostly because it is founded on the empowerment of the individual themselves in reflecting and consciously choosing the information or image they wish to archive and make available on social media. However, one should remember Adorno’s (2010) words, written already in the late 1950s, about the relationship between memory and half-formation: “Half-formation is a weakness in relation to time, to memory, the only mediation capable of making in one’s consciousness that synthesis of the experience that characterized formation in other times” (Adorno, 2010, p. 33).

If that affirmation by Adorno (2010) could be re-signified in the context of the digital culture, one would note how the flood of digital information and images renews the process of damaging formation (*Bildung*), inasmuch as informative states which are point-like, disconnected, interchangeable and ephemeral are algorithmically produced, reproduced and archived as if they sufficed in and by themselves. That is why the predominant logic of fake news relies on fragmentation and decontextualization. Given this social scenario, it is increasingly difficult to lead the individual to be solely responsible for what they should or should not archive, and therefore, archive themselves; as if this were an exclusive question of their free will.

Thus, instead of defending a kind of digital abstinence, perhaps it would be more profitable to use the power of digital memory (Livingstone, 2010, Kellner; Share, 2008, Buckingham, 2019), in order to foment the analysis of the social-political-economic and cultural conjunctures of digital information and images, inasmuch as such data would be historically contextualized with the past, which would enable, in one’s presence, the engendering of other future perspectives. It is in this way that the resulting enduring mental representations metamorphose into concepts; the same concepts that psychically underpin the moral behaviors that relink the particular and the general, as this individual reflects on the causes and consequences of their attitudes in relation to others.

In other words, conceptual thinking depends viscerally on the mnemonic recovery of the past so that the present will not perpetuate itself indefinitely, but drive the individual to project new identities and forthcoming conceptions. Thus, instead of the digital memory’s encouraging the perpetuation of resentful and even prejudiced considerations, it might be used to relink particular and general, individual and society, thereby promoting a kind of ethical renovation of formation (*Bildung*) in the digital culture, such renovation being the object of the next section.

Self-archiving as an augmented formative experience in the digital culture

From the range of concepts that Paulo Freire elaborated throughout his trajectory as an educator, certainly one the most remarkable is the so-called banking education, which was defined as follows:

Instead of communicating, the educator makes “communiqués” and deposits which the students, mere incidents, receive patiently, memorize, and repeat. This is the “banking” conception of education, where the latitude offered to students is that of receiving, keeping, and archiving the deposits. The latitude to be collectors or keepers of the things they archive [...]. Educators and students archive themselves inasmuch as, in this twisted view of education, there is no creativity, no transformation, there is no knowledge. Knowledge exists only in invention, in reinvention, in the restless, impatient, permanent search that people conduct in the world, with the world and with others. A hopeful search, too. (Freire, 1978, p. 66).

There are several aspects that are worth emphasizing in this definition by Freire (1978) about the presuppositions of banking education. However, it is interesting to magnify the meaning of the metaphor as regards the word: archiving. Students become mere receptacles, archives in which information is deposited and absorbed. In the context where Paulo Freire (1978) elaborated this student-archive metaphor, the notion of archive that still prevailed was that of a place spatially identified, whose narrow access to information afforded power to those who controlled both how it was created and how it would be transmitted to most people. As emphasized earlier, archive used to refer to the place where governmental records were stored and kept in secret: “The archive was part of an apparatus of social control and regulation, so as to facilitate governance of the territory and the population through accumulated information” (Featherstone, 2006, p. 591). Not by chance did Francis Bacon (1561-1626) affirm in his *Novum Organum* that holding knowledge implied power and control. (Bacon, 1973).

Following this rationale, there is total sense in the connection that Freire (1978) observed between the vertical hierarchy between teacher and student and the mechanic and passive absorption of information, which is as though deposited in the archive-student. However, if this conception of archive was valid for the societies preceding the microelectronic revolution, it is no longer possible to restrict the meaning of archiving solely to the verification that it is a place for depositing. In fact, the very notion of space is profoundly altered in the digital culture society, as with the cases described in the introduction of this article about a failure in the Waze application and in airline check-in desks. In these cases, software and spatiality constitute each other, so that “spatiality becomes the product of the code, and the code exists primarily in order to produce a particular spatiality” (Kitchin; Dodge, 2011, p. 16).

Space and time are substantially modified in the digital culture, inasmuch as the flow and storage of information occur in a continuous, uninterrupted way. The transformations in the spatio-temporal dimensions are part of a culture in which the digital archive becomes an impulse that reshapes the way of producing and disseminating knowledge: “The transformations in the digital archive, between flows and classification, direct us to the heart of the questions about the constitution, formation and storage of knowledge in the present age” (Featherstone, 2006, p. 591). Consequently, the digital archive cannot be considered as just a “place” where information is recorded and retrieved, but rather as a continuous flow of storage and reciprocity of information. It is precisely this ubiquitous,

uninterrupted way that causes the relationships established between teachers and students to be resignified in an unprecedented way.

The current transformations of the vertically hierarchized relationships between teachers and students, which drive an incessant exchange of information flows between themselves, thereby archiving themselves reciprocally, are indications of the way in which formation (*Bildung*) can be rethought in the context of the digital culture society. To that end, it is necessary to consider the mode in which memory itself is algorithmically reshaped through the production, reproduction and dissemination of digital tags or metadata.

When considering current digital tags, it is interesting to remember Adorno's critique of the so-called ticket mentality (*Ticketdenken*) predominant among fascist-leaning individuals who tagged and labeled in a prejudiced manner those who did not belong to the authoritarian group (Adorno, 1972). However, in the digital culture society, the tagging process acquires a decisive connotation of intervention, to the point that digital archives are located, classified and interpreted through the identification of these tags as "deep political spaces" (Beer, 2013; Parikka, 2012). Thus, the keywords – the tags – that we type in whenever we search for any information in the search mechanisms of digital platforms direct us to particular links and not to others. What is more, each time they are accessed and shared, the algorithms related to a particular search mechanism interpret that the most searched ones must be the ones that most correspond to the real meaning of what is being searched, as they become a kind of categorical imperatives in the age of the digital culture.

If, for example, the keyword black is consubstantiated to certain places considered frequently dangerous, then the algorithms of software in the computers of police cars will tend to correlate such places where crimes are committed to being black, as if skin color were unquestionably associated with a criminal ontology. For if a black person is in such a place, the algorithms will tend to immediately identify them as a criminal (Noble, 2018). Thus, the historical essence of the ticket mentality aligned with delusional prejudice is algorithmically renewed in the digital culture. However, the same marking, in the form of digital tags, can lead to attention being directed to themes and discussion forums literally related with life or death issues, such as: "defense of diversity", "environment protection", "down with racism", among others. That is why it can be affirmed that this is the power of metadata and of classification through archives, for it is precisely in these that it is possible to observe the way in which "the infrastructures of participation include participation in their contents" (Beer, 2013, p. 54).

Of course, the mere access to such tags will not by itself ensure the presence of both the reasoning critical of stereotyped thinking and the resistance to practices related with delusional prejudice. However, if the keywords which direct to prejudice gradually disappear from the digital scenario, or lose space to other, more spectacularly emancipatory ones, then there will be more chances that other tags thrive in the terrain currently occupied mostly by the reiteration of ticket mentality. For this situation to become hegemonic, it is increasingly necessary to stimulate the historical spatio-temporal recovery of information and relate that information to another crucial dimension of *Bildung*: the ethical-moral dimension. Before the current grand jury of social media, which exposes any type of

judgment “without being held to account for it in relation to any person” (Türcke, 2019, p. 122), an ethos aligned with moral disengagement spreads into practically every social relationship. Given this scenario, it is necessary to gather the digital recovery of the historical context of information with an incentive to ethical sensitization which allows for the individual not to feel attracted by the sortilege of authoritarian slogans and by the enjoyment of feelings of narcissistic omnipotence (Nida-Rümelin; Weidenfeld, 2018).

Ironically, it is the algorithmic mechanicalness of digital memory that can become the counterpoint to the mechanical memorization of banking education, inasmuch as self-archiving digitally, in the form of information flows reciprocally shared, can replace the characterization of students – and educators – as archives in which information is deposited without any kind of creative intervention. In the digital culture society, it becomes possible to lead self-archiving and the archiving of information to provide the ballast necessary for the dialogues between pieces of information to bring about the production of ethical concepts that are substantially experienced in moral behaviors, so that one does not treat others instrumentally as an object for achieving a particular end. Thus, the digitally augmented formative experience can resignify critically the meaning of self-archiving, as well as these earlier cited words by Freire: “Knowledge exists only in invention, in reinvention, in the restless, impatient, permanent search that people conduct in the world, with the world and with others. A hopeful search, too” (Freire, 1978, p. 66).

It is the renewing of this hope, proposed by Freire (1978), that enables rethinking the relationship between formation (*Bildung*) and citizenship in times of digital culture (Zuin; Mello, 2021). If *Bildung* was a decisive element for making citizen status universal in the 18th century, as highlighted in the first part of this article, it is necessary to ponder the characteristics of the digitally literate individual, in a kind of reconsideration about the relationship established by Kant between the formative experience and daring to know as a premise for the individual’s departure from minority, from being under another’s guardianship. Perhaps, abandoning a subordinate status involves, nowadays, promoting a critical digital literacy that allows for students and educators to affirm digitally their citizen status, inasmuch as they are capable of both identifying and intervening critically about the production and reproduction of fake news.

If digital platforms alter also the political perspectives of their users, to the point of modifying the “perceptions they have about the political public sphere as such” (Habermas, 2022, p. 164), then it becomes increasingly important to use the spaces of the same platforms so that information is interrelated both contextually and historically, to the point of stimulating the permanence of lasting mental representations and, therefore, of concepts and practices of intervention against the barbarianism of delusional prejudice (Van Dijck; Poell; De Vall, 2018). The presence of the augmented formative experience depends on how the digitally coded spatio-temporal relationship foments the corporal reconnection of the individual with themselves and with others.

Conclusion

In the current society of so-called surveillance capitalism, the process of accessing, classifying, archiving and interpreting information becomes fundamental both for the

production and reproduction of commodities and for the way in which knowledge will be engendered and shared. Not by chance, in every social relationship, present and future behaviors and desires are being increasingly classified through the actions of algorithms which locate any peculiarity of individuals, such is their power to personalize amid an incommensurable mass of data, of metadata. Given this context, various studies have contributed to the critical reflection about how ubiquitous digitization determines the engendering of radical transformations also in the process of production and dissemination of knowledge, such as those of Featherstone (2006), Livingstone (2010), Kellner & Share (2008), Beer (2013), Van Dijck, Poell & De Vall (2018), Buckingham (2019), Zuboff (2018, 2019), Flynn (2020), Manovich (2020), among others. The considerations presented in this article are in agreement with this purpose. In other words, it is necessary to pay ever more attention pedagogically about the relationship between educational knowledge and practices in the society of digital self-archiving as a cultural impulse.

It is in this society that archiving is no longer limited to the physical storing of documents and, therefore, of knowledge hierarchically controlled by their holders and keepers. For the digital archive contests, on account of its idiosyncrasies, both the spatiality of the physical place and the temporality of a network-based production of knowledge which does not cease for single moment. In fact, digital self-archiving transcends the boundaries of the virtual “place” and metamorphoses into the identity-based ontology that being means self-archiving through a continuous flow of reciprocally shared information. However, the possibility of practicing such permutation cannot act as a kind of rationalization in defense of a supposed algorithmic neutrality that consents to enabling the information exchange to occur as it were something in and by itself, and therefore devoid of the historical contexts and relationships that conceived them. In other words, algorithmic correlations cannot be separated from an understanding of the causes that engendered them, with a view to the production and dissemination of knowledge.

Technology, including the algorithmic type, cannot be identified merely as a set of techniques, but rather characterized as a social process which it is, as Marcuse (1999) would say. Further, however comfortable one may feel in exercising a kind of digital abstinence, that will not cease de existence of questions related to dealing with the incessant torrent of information digitally produced and reproduced. The acts of reflecting about the relevance of the processes of filtering, classifying, archiving and sharing information, as a condition of production and reproduction of the knowledge that will be classified and interpreted, as well as about self-archiving as an augmented formative experience in the digital culture, become fundamental for enabling the delineation of pedagogical practices aligned with the necessary moral engagement of internet users.

If in the society of digital memory, in which it becomes possible to remember everything, new forms of forgetting are produced, inasmuch as the compiled information is decontextualized to the point of becoming fake news, then it becomes imperative for the analysis of processes of production and dissemination of knowledge to consider critically the way in which self-archiving constitutes such processes in the form of a cultural impulse. That way, amid the current digital Babel, the new Funes will not be imprisoned solely by the memory of details, but will instead relate them mnemonically to the social contexts in which they were produced. Thus, they will be able to *remain*

as individuals ethically linked to each other, amid the uninterrupted flow of dialogical archiving, interpretation and sharing of information.

References

ADORNO, Theodor W. A indústria cultural. *In*: COHN, Gabriel (org.) **Theodor W. Adorno**. São Paulo: Ática, 1986. p. 92-100.

ADORNO, Theodor W. Studies in the authoritarian personality. *In*: ADORNO, Theodor W. *Gesammelte schriften 9- soziologische schriften II - Erste Hälfte*. Frankfurt am Main: Suhrkamp Verlag, 1972. p. 143-508.

ADORNO, Theodor W. Teoria da semiformação. *In*: PUCCI, Bruno; ZUIN, Antônio; LASTÓRIA, Luiz (org.). **Teoria crítica e inconformismo: novas perspectivas de pesquisa**. Campinas: Autores Associados, 2010. p. 7-41.

ADORNO, Theodor W.; HORKHEIMER, Max. **Dialética do esclarecimento**: fragmentos filosóficos. Rio de Janeiro: Jorge Zahar, 1986.

ALPAYDIN, Ethem. **Machine learning**. Cambridge: Mit Press, 2016.

BACON, Francis. **Novum Organum ou verdadeiras indicações acerca da interpretação da natureza** – Nova Atlântida. São Paulo: Abril Cultural, 1973.

BEER, David. **Popular culture and new media**: the politics of circulation. New York: Palgrave Macmillan, 2013.

BENJAMIN, Walter. **Magia e técnica, arte e política**. São Paulo: Brasiliense, 2010.

BORGES, Jorge Luís. **Ficções**. São Paulo: Companhia das Letras, 2021.

BUCKINGHAM, David. **The media education manifesto**. Cambridge: Polity Press, 2019.

CAMBI, Franco. **História da pedagogia**. São Paulo: Unesp, 1999.

DERRIDA, Jacques. **Mal de arquivo**: uma impressão freudiana. Rio de Janeiro: Relume Dumará, 2001.

FEATHERSTONE, Mike. Archive. **Theory, Culture & Society**, London, v. 23, n. 2-3, p. 591-596, 2006. Disponível em: <https://doi.org/10.1177/0263276406023002106> Acesso em: 10 jun. 2018.

FLYNN, Paul. Towards a pedagogy of archival engagement. **Archives and Records**, London, v. 41, n. 2, p. 105-108, 2020. Disponível em: <https://doi.org/10.1080/23257962.2020.1758048> Acesso em: 22 jun. 2023.

FREIRE, Paulo. **Pedagogia do oprimido**. Rio de Janeiro: Paz e Terra, 1978.

FREUD, Sigmund. **O mal-estar na civilização**: novas conferências introdutórias à psicanálise e outros textos (1930-1936). São Paulo: Companhia das Letras, 2010.

GREENGARD, Samuel. **The Internet of things**. Cambridge: MIT Press, 2015.

HABERMAS, Jürgen. **Mudança estrutural da esfera pública**: investigações sobre uma categoria da sociedade burguesa. São Paulo: Unesp, 2014.

HABERMAS, Jürgen. Reflections and hypotheses on a further structural transformation of the political public sphere. **Theory, Culture & Society**, London, v. 39, n. 4, p. 145-171, 2022. Disponível em: <https://doi.org/10.1177/02632764221112341> Acesso em: 14 nov. 2022.

KANT, Immanuel. Resposta à pergunta: que é esclarecimento. *In*: KANT, Immanuel. **Textos seletos**. Petrópolis: Vozes, 2005. p. 63-72.

KELLNER, Douglas; SHARE, Jeff. Educação para a leitura crítica da mídia, democracia radical e a reconstrução da educação. **Educação & Sociedade**, Campinas, v. 29, p. 671-715, 2008. Disponível em: <http://www.scielo.br/pdf/es/v29n104/a0429104.pdf> Acesso em: 24 jun. 2017.

KITCHIN, Rob; DODGE, Martin. **Code/Space**: software and everyday life. Cambridge; London: Mit Press, 2011.

KOOPMAN, Colin. **How we became our data**: a genealogy of the informational person. Chicago; London: The University of Chicago Press, 2019.

LIVINGSTONE, Sonia. Media literacy and the challenge of new information and communication technologies. **The Communicative Review**, London, v. 7, n. 1, p. 3-14, 2010. Disponível em: <http://dx.doi.org/10.1080/10714420490280152> Acesso em: 25 nov. 2022.

MANOVICH, Lev. **Cultural analytics**. Cambridge; London: MIT Press, 2020.

MARCUSE, Herbert. **Tecnologia, guerra e fascismo**. São Paulo: Unesp, 1999.

MIORANDI, Daniele *et al.* Internet of Things: vision, applications and research challenges. **Ad Hoc Networks**, Amsterdam, n. 10, p.1497-1516, 2012. Disponível em: <https://doi.org/10.1016/j.adhoc.2012.02.016> Acesso em 29 set. 2022.

NIDA-RÜMELIN, Julian; WEIDENFELD, Nathalie. **Digitaler humanismus**: eine ethik für das zeitalter der künstlichen intelligenz. München: Piper, 2018.

NOBLE, Safya Umoja. **Algorithms of oppression**: how search engines reinforce racism. New York: New York University Press, 2018.

PARIKKA, Jussi. **What is media archaeology?** Cambridge: Polity, 2012.

SCHÖNBERGER, Victor Mayer. **Delete**: the virtue of forgetting in the digit age. Princeton: Princeton University Press, 2009.

SCHÖNBERGER, Victor Mayer; CUKIER, Kenneth. **Big data**: the essential guide to work, life and learning in the age of insight. London: John Murray Press, 2017.

SIMMEL, Georg. The concept and tragedy of culture. *In*: FRISBY, David; FEATHERSTONE, Michael. **Simmel on culture**. London: Sage, 1997. p. 55-75.

TÜRCKE, Christoph. **Digitale gefolgschaft**: auf dem weg in eine neue stammesgesellschaft. München: C.H. Beck Verlag, 2019.

TÜRCKE, Christoph. **Sociedade excitada**: filosofia da sensação. Campinas: Unicamp, 2010.

VAN DIJCK, José; POELL, Thomas; De WALL, Martijin. **The plataforma society**: public values in a connective world. New York: Oxford University Press, 2018.

ZUBOFF, Shoshana. Big other: capitalismo de vigilância e perspectivas para uma civilização de informação. *In*: BRUNO, Fernanda *et al.* (org.). **Tecnopolíticas da vigilância**: perspectivas da margem. São Paulo: Boitempo, 2018. p. 17-69.

ZUBOFF, Shoshana. **The age of surveillance capitalism**: the fight for a human future at the new frontier of power. London: Profile Books, 2019.

ZUIN, Antônio; MELLO, Roseli Rodrigues. Por uma pedagogia da esperança e da autonomia na era da cultura digital. **Pro-Posições**, Campinas, v. 32, p. e20210110, 2021. Disponível em: <https://doi.org/10.1590/1980-6248-2021-0110> Acesso em: 17 maio 2023.

Received on October 11, 2022

Reviewed on April 24, 2023

Approved on May 15, 2023

Editor: Prof. Dr. Agnaldo Arroio

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dissemination in the digital culture**

Educação e Pesquisa

vol. 50, e268648, 2024

Faculdade de Educação da Universidade de São Paulo,

ISSN: 1517-9702

ISSN-E: 1678-4634

DOI: <https://doi.org/10.1590/S1678-4634202450268648>