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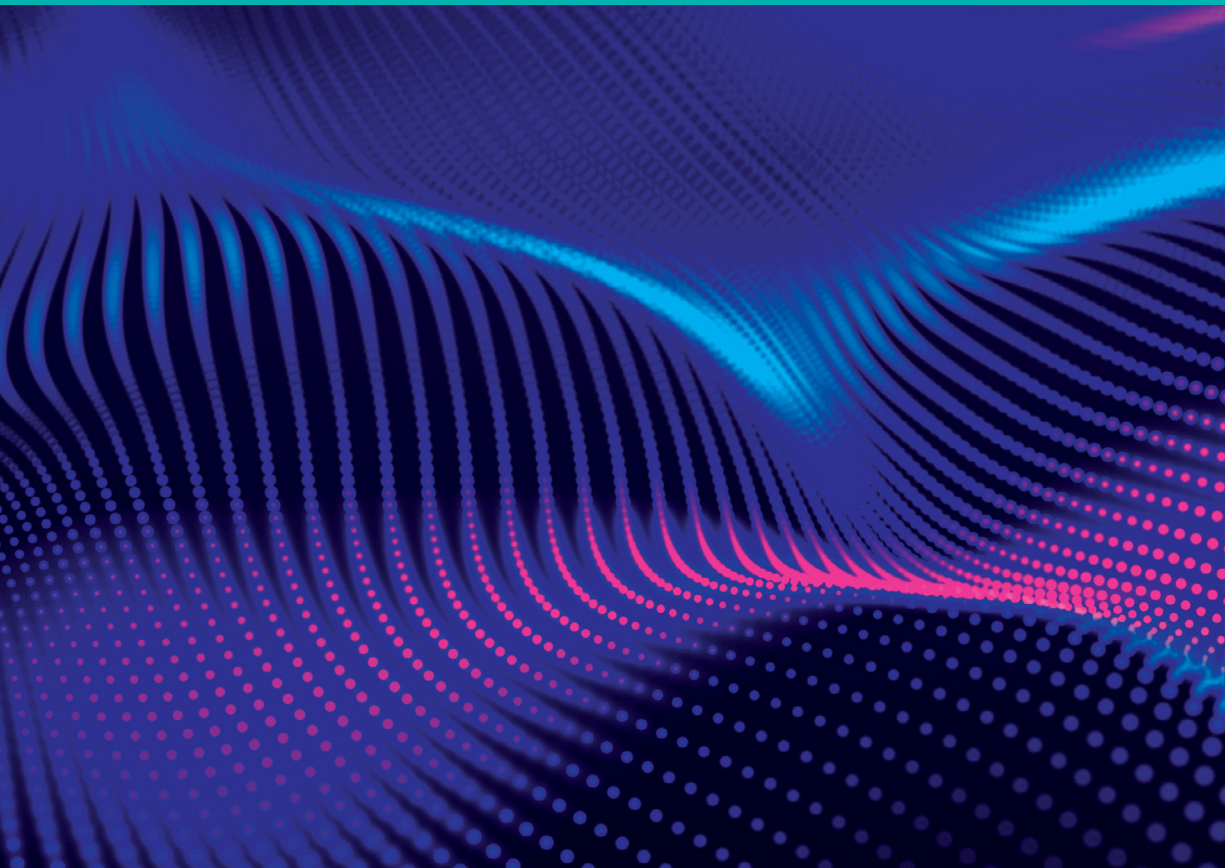
The Curriculum of Everything

Understanding education and curriculum

José A. Pacheco



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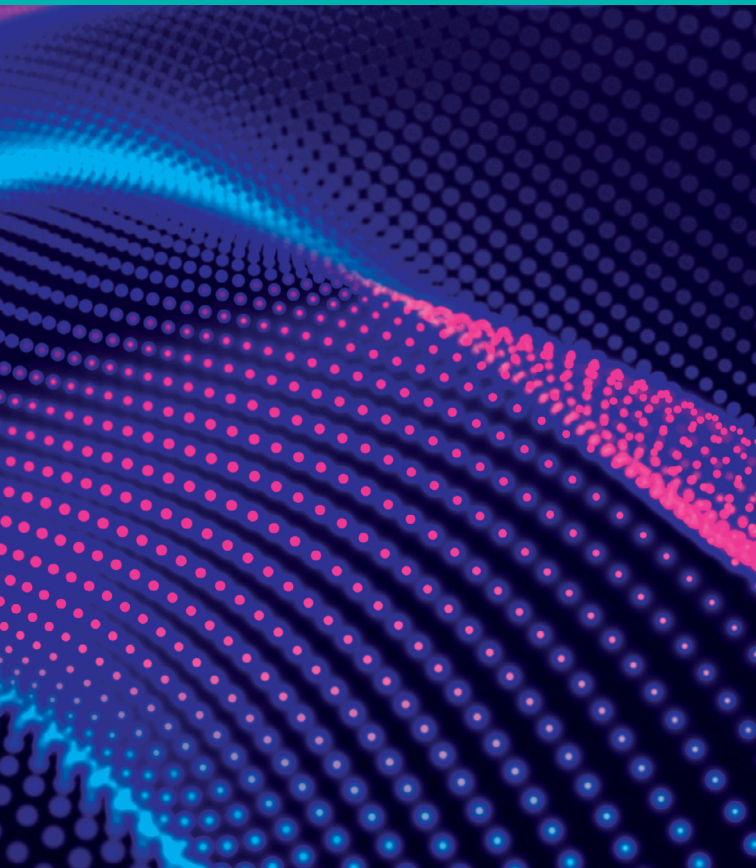

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I am grateful to William F. Pinar for academic and personal conversations in the USA and Canada. He is undoubtedly an example of a deep friendship beyond the academic world.

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Preface

"By destroying democracy," José A. Pacheco knows, "the technology of human control leads to totalitarianism and barbarism, ending tolerance, difference and diversity."[1] Submerged in such a scenario, Pacheco understands that "remembrance and memory are needed so that historical fascisms are not repeated, if in new disguises." These "new disguises" include familiar faces, as technologization "enhances efficiency, ensures uniformity as it presumes objectivity, to the detriment of human reflection and singularity." It is also to the detriment of "intellectual endeavor, critical attitude, and self-reflexivity." What's left of us if, in our datafication, "the subject becomes a free raw material for hidden commercial practices of extraction, prediction, and sales in the foundational framework of a surveillance economy and a new instrumentarian power?" Pacheco says it straight: "In the current digital time, the subject is a barcode, the cave where his shadow is virtual data," as the "information technologies usher in a new mode of subjectivation."

In our era, individualism involves not individuation but subjection: "The curriculum is programmed according to the cultural aspirations of networked individualism and an emphasis on personal choice, personal projects, and self-enterprise implanted in Internet culture." When "personal choice" is structured by software – which is rather *im*personal as Pacheco appreciates – "self-enterprise" can only recast the human subject as "gig worker," as one is economically – and educationally - on one's own, quietly commanded – as an Uber driver is – by the machine on our dashboard. "Implanted" is exactly right, and not only in "Internet culture" as Pacheco perceptively perceives but also inside the psyche as well. Penetrated, we become impregnated with the structures of software, as Pacheco appreciates: "Technological devices are powerful instruments of subjectivity production, moving the subject into predefined ways of knowing." Indeed, the "ground of curriculum now is the operational knowledge, demoted to information, the efficient causality of the digital subjectivity." Online profiles not embodied persons,

1 Unless otherwise indicated, all quoted passages are from this text.

we fabricate then become mesmerized by our and others' image on social media, but, as in the case of Narcissus, one's own image cannot love back.[2]

The current cultural crises of narcissism, presentism, and technologization are reciprocally related. And they seem to be accelerating, contributing to social, subjective and geopolitical instability, but Pacheco remains rational, reminding us – calmly – that the "submission of the subject to a technological control… needs to be questioned not only by who they are as data information but by a critical questioning of the digital subjectivity immersed in calculative thinking of ongoing commercialism," what Pacheco precisely terms "commercial governmentality." This is where we curriculum studies specialists come in: "questioning knowledge is precisely the responsibility of curriculum study." Pacheco reminds us that "curriculum study is a normative question," now necessarily "with its technological dimension." Then in a stunningly synoptic sentence that students could usefully study all semester, he summarizes: "the curriculum as a socially, culturally, ideologically, politically and economically constructed practice, is a formal and informal dispositive of interwoven relationships between knowledge, power, and technology."

That "interwoven" relationship was restructured by the COVID-19 pandemic. That Pacheco turns his attention to the pandemic affirms his attunement to the historical moment; he points out that "the pandemic created a new normal in education or simply accenting what is normal already, namely an accelerating tendency toward technologization." In particular, the "pandemic has accelerated digitalization, calibrating subjectivities to new and increasing virtual demands, submerging us all in tsunami-like economies of the Cloud." Not only attuned to the past, Pacheco anticipates the future, perceptively noting that the "pandemic may not mean deglobalization, but it surely accentuates it, as national borders are closed, international travel is suspended, and international trade is impacted by the accompanying economic crisis." With supply lines slowed or even stopped – especially during China's lockdowns – and geopolitical tensions intensifying – Europe and the United States severing ties with Russia, the U.S. threatening to do so with China if the CCP invades Taiwan – deglobalization is decidedly on the horizon.

Prognostication is not Pacheco's primary preoccupation, however; he stays with what he knows – the past – and its consequences for the present.

2 For contextualization of that elusive concept in curriculum studies, see Jales Coutinho (2023).

A medical emergency is also an existential emergency, entailing new modes of subjectivation, impacting not only adults but children as well, as the "pandemic has moved curriculum to online, forcing children physically away from each other, physically from their teachers, from the in-person dialogical encounters classrooms can enable". Not only was children's social development was stunted, mental health visits to hospital emergency rooms increased, at least in the United States.[3]

As crucial as critique is, Pacheco does not stop there. He returns our attention to where we – as individual educators and students – live, to the moment-by-moment character of our daily lives, to the specificity of the human situation. What to do? "In sum," he advises, "slow down, linger," wisdom not unknown to students of curriculum in North America.[4] In our era, adagio not allegro is the rhythm of resistance,[5] as Pacheco appreciates, writing: "That is political as well as psychological resistance to the acceleration of time, acceleration the pandemic has intensified." There is another subjective site of resistance Pacheco invokes, that of intertwined modalities of being-in-the-world, not only "life" online. He writes: "The Curriculum of Everything advances as the eternal future in which artificial intelligence surpasses the human capacity to do but not that of understanding and feeling." Now even the "father" of Artificial Intelligence worries even those bedrocks of being – understanding and feeling – may be at risk.[6]

At risk is humanity itself. The coming climate catastrophe, intensifying geopolitical tensions accompanied by deglobalization, the ever-present threat of nuclear annihilation: these threats to human species extinction we ourselves have concocted, and it is we ourselves who can correct them. But will there be a "we" – dependent as the collective is upon the status of the "I" – to understand, to feel, to slow down our lives sufficiently to be able to proceed with due deliberation, with erudition, with discernment? The future is not front of us but in back. Back-up I say, and Pacheco appears to concur, writing: "[W]e need to think about education for democratic citizenship centered not essentially on economic growth but in a human development paradigm because education is for people, and citizenship has its own

3 Richtel (2023, May 2) draws on a report published in the *Journal of the American Medical Association*; during the last decade, suicide-related visits to hospital emergency rooms rose fivefold. The team of researchers and physicians who published the report termed the situation "urgent."

4 See Lee, Wang, Ursino (2022).

5 As Berg and Seeber (2016) affirm.

6 https://www.cbc.ca/news/business/ai-doom-column-don-pittis-1.6829302

room in the local, national, and global dimensions."[7] Old-fashioned rhetoric alright, but insightfully implying we need to return to the past, when were still – sort of – human, before we were seduced by supranational "citizenship" in the software state, before we became submerged in the "curriculum of everything." Step back from the brink. Pacheco has. Let us join him.

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William F. Pinar
British Columbia University

7 For more on "economism," in particular the commodification of children as "human capital," see Moghtader (2024).

Introduction: the question of subjectivity in curriculum

From that past we might find our way to a future unforeclosed by the present.[1]

1 William F. Pinar (2019, p. xii).

Expanding Pinar's reasoning, what past do we need to be critically analyzed for its political, economic, health, and ecological catastrophe?

The year 2020 will undoubtedly be the touchstone for a turning point in how we individually and globally relate in a changing society accelerated by digital technologies. A brave new world is back, but now the subject is not only captured by technology and subjectivity – the permanent search for the self, or the government of the self, for Foucault – but re-signified by ideologies such as connectivity and algorithmization. As an alarm, says Pinar, "we might re-experience a past when there seemed to be more time, time when we were less submerged in the screen."[2] Technology became prevalent in its new forms of connectivity, digitalization, and datafication, transforming education, school, and pedagogy into a global repository of information and knowledge sources. Like the mass media were the new educational language reducing the power of the didactic book and teacher's transmission knowledge, as McLuhan acknowledged, the Internet in its distinctive forms of evolution – from fix and mobile to the interconnected rendered realities – had opened, opens, and will open infinite possibilities of changing scholar curriculum. At the same time, the broad and invisible box of information and knowledge, called the Internet, "will connect with almost all other boxed subjects in schools."[3]

This book began with the pandemic, first with an article for an international journal, reflecting on education and curriculum changes. During the long months of confinement and social distancing, with time for much reading and a willingness to return to classic social sciences and humanities authors, the issue of technology proved to be unavoidable. It is grounded on the four pillars of curricular issues – technology, knowledge, subjectivity, and study – as values embedded into the reflexive practices. As an administrative field in its early formal years, curriculum studies have been a complex and controversial endeavor, which have been approached differently throughout recent decades, instigating its dynamic identity.

Acknowledging that "the curriculum field has been suffering a kind of identity crisis," Pinar, Reynolds, Slattery, and Taubman[4] pointed out the problems and possibilities of the field "filled with a thousand of voices," marked by the

2 William F. Pinar (2019, p. xii).

3 Sugata Mitra (2020, p. 243).

4 William F. Pinar, William M. Reynolds, Patrick Slattery, and Peter T. Taubman (1995, pp. 849, 848, 857).

"proliferation of discourses" and defined as an "energetic field" because the "curriculum is an extraordinarily complicated conversation." The field is no longer arrested and moribund, as Schwab[5] said, but rather a hybrid space with a relatively rapid shift from the Tylerian paradigm to an understanding paradigm, which is the same as saying that the field has moved from a paradigmatic unity to plural subjectivity. Subjectivity is, then, the room of the curriculum as a mode of subjectivation, one of the three Foucault's axioms for the analyses of one experience focus, that is to say, the relations between knowledge, power, and subject: "Connecting together modes of veridiction, techniques of governmentality, and practices of the self is basically what I have always been trying to do."[6]

The other axiom is knowledge as a searching mode of truth. Theoretically approached as muscle, memorization, disciplinary content, behavior, and competency, knowledge constantly returns to the central question of curriculum studies: What knowledge is of most worth?[7] In a digital era, the ongoing debates explore the nature of knowledge, with a significant tendency to pragmatism and calculism as well as its digital analysis wherein the powerful knowledge is transformed into algorithmic and the institutional curriculum moved online. The Internet – and the Internet of Things or the Metaverse Internet (of everything) – as a source of information and knowledge is intensely variegated and is now profoundly changing the canonical question of the curriculum. It must be admitted that the Curriculum of Things exists and has become the hidden essence of the school curriculum, transforming the classical perspectives on the curriculum studies field.

The most efficient words connected to curricular projects were instructional learning and knowledge transmission. According to didactics and psychology theoretical approaches, the curriculum has been synonymous with teaching and learning. The tensions between what is taught and learned are transformed by digital technologies, mainly related to classroom engagement. The coronavirus pandemic is just a moment of acceleration to the sociotechnical imaginary by which the curriculum is shaped according to individual interests embedded in market values. Technological surveillance brings an algorithmic rationality to education, in which informa-

5 The metaphor used by Joseph Schwab (1970) – the moribund curriculum – has been rejected like other metaphors or images reviewed by Philip Jackson (1992), namely *confusion, conflict, amorphous, elusive, in disrepair, driven into disarray, suffering from severe disorientation, ill-defined epistemology. See* Cheryl J. Craig and Maria Assunção Flores (2020).

6 Michel Foucault (2010, p. 8).

7 William F. Pinar (2004, 2019).

tion and knowledge no longer belong to God or the teacher but to each individual who creates himself data. The subject fades. The study is the crucial question to discuss the overcoming of an instrumental power[8] increasingly modeled throughout big data, deep learning, artificial intelligence, and probabilistic learning. On the contrary and looking at the future, subjectivity and not personalization become the essence of curriculum, returning the humanistic approach to the lived experience curriculum in a post-pandemic curriculum. The subject becomes central in the study because learning is a process linked to an inner conversation, not a result.

The book is organized into five chapters. The Foucaultian' s notion of care of oneself is the keystone of Chapter 1, entitled curriculum as subjective experience. The self is the starting point of the curriculum through a complicated conversation – in Pinar's words[9] – about knowledge in an educational and pedagogical context, requiring the analysis of the concepts of subjectivity and dispositive.

Chapter 2 – The Curriculum of Things – addresses the central issue of technology, primarily from Althusser's perspective, and its impact on education and curriculum. The new spaces opened by digital technologies are also critically explored, including the discussion of the power of the Internet from interconnected networks of information and knowledge, increasingly complex and building new realities that can never hide the subject and human autonomy. The metaverse-based curriculum opens the door to see what knowledge will be the most of worth and how education will be shaped by thinking statistically in the age of algorithms.

Chapter 3 – The digital subject in the curriculum – is a reflection on subjectivity, curriculum, and knowledge. As a result of Pinar's ideas and his influence in the field of curriculum studies, the approach to the digital subject in the curriculum departs from Foucault's three axioms. It is also discussed by authors such as Kant, Descartes, Foucault, Heidegger, Horkheimer, Pinar, Young, Bernstein, Habermas, Deleuze, Malewski, Pitt, Moreira, Žižek, Butler, Salih, Touraine, Sartre, Giddens, Britzman, Couldry, Mejias, Hardt, Negri, and Zuboff. Other authors are revisited to understand better what issues can be considered in questioning subjectivity and the digital subject.

8 Shoshana Zuboff (2019).

9 William F. Pinar (2006).

Focused on the politics of presence on curriculum, Chapter 4 is about the politics of presence that constitutes curriculum study as educational experience through Pinar's notion of *currere,* the lived experience knowledge. A broad approach to clarify this question needs to consider the following points: the subjectived curriculum; curriculum as a complicated conversation; the present goes to virtual; worldliness of a cosmopolitan curriculum; the curriculum citizenship.

The title of Chapter 5 Study: the subjective curriculum reset, comes with changes occurring in digital technologies that are perspectived by different social imaginaries. The traditional rationality on education, curriculum, and pedagogy is the splendor of pedagogical authority, submissive learning, and not the autonomy of study extremely concerned with Bartleby's sentence *I would prefer not to*.[10] Different social imaginaries can underline the complexity of the human experience. Thus, the disciplinary imaginary looks at education as normative instruction, extensively concerned with accountable curriculum in a pragmatic-neoliberal imaginary. Nevertheless, the sociotechnical imaginary is personalized learning as algorithm-modeled self-study, further explored in the future by metaverse technologies.

Digital study increasingly becomes the hidden technological curriculum, and its interconnectedness will increasingly be the corpus of knowledge of human and post-human interactions referred to as artificial intelligence. The slowness of subjective study brings to the subject a deep and broad understanding of their experience in an era of fast educational experience framed by comparative outcomes or efficiency-optimization ideologies, where robots are thought to replace teachers and respond to learners.

With its eyes set on the future, Chapter 6 analyses the post-COVID curriculum. Explicitly, is a response to this central question: How to resist the slide into a passive technologization and seize the possibility of achieving a responsive, ethical, humane, and international-transformational educational approach? The emergency pandemic coronavirus included changes underway at several levels, including personal, social, and economic levels and educational and curricular levels. The pandemic accelerates digitalization, calibrating subjectivities to new and increasing virtual and immersive demands. That is the context in which the acceptance of one culture of technological surveillance can be transformed by a state of consciousness about the world's knowledge.

10 Herman Melville (1853/2005).

It is relevant here to the emergency of reactivating the humanistic tradition in education through a curriculum conceived as a complicated conversation. Indeed, I suggest that the post-COVID curriculum seizes the possibility of achieving a responsive, ethical, humane, and transformational educational approach, outlining the vision of a humanistic and international-aware change throughout a disquietude study.

In conclusion, I propose a unique heading: disquietude study. As a moment of eternity[11], disquietude is the inner experience understood as subjective questioning. The study as disquietude is the currere for a complicated conversation, the legacy of humanists in light of critical and post-critical conceptions of education and curriculum.

11 William F. Pinar (2019).

Chapter 1 – Curriculum as subjective experience

Curriculum is crucial, as it authorizes what students study and teachers teach.[1]

1 William F. Pinar (2019, p. ix).

The culture of the self

In his last texts, Foucault[2] undergoes a philosophical "reflection underway on the theme of the relations between subjectivity and truth" from "the notion of care of oneself."[3] The author considers the Greek phrase *know yourself* – present in Plato's education on Alcibiades, which spells out Socrates' ideas on pedagogy – both as a principle of restlessness and "an attitude towards the self, others, and the world," implying "a certain form of attention, of looking, from the outside to inside."[4] It is through education as a reflective curricular experience that the subject turns to himself, in an act associated by Foucault with the exercise of power within a personal project that does not recognize pedagogy as passivity, preferably denoting art, tékhne, and knowledge.

Searching his own reflexivity as a transformational education through curricular experiences, the subject turns back to himself, associated by Foucault to the exercise of power within the political project and the inadequacy of pedagogy as passivity, preferentially denoting art, *tékhne,* and knowledge. Paraphrasing Foucault, curriculum and pedagogy provide not only strategies to learn outside the subject but also a way of taking care of oneself "between pedagogy understood as apprenticeship and this other form of culture, of *paideia* ... which revolves around what could be called the culture of the self, the formation of the self."[5]

The self as the starting point of curriculum implies the discussion of one's inner integrity and subjectivity as an answer to the question What is one's self "as subject of actions, behavior, relationships, attitudes"?[6]. Such as through the love relationship, the care of the can self "only take shape by reference to the other,"[7] philosophically, psychanalytically, and sociologically understood in the intrinsic/extrinsic dialogue of the subject, following Kant, Hegel, Heidegger, Althusser, Horkheimer, Sartre, Nietzsche, Lacan, Freud, Habermas, Foucault, Touraine, Giddens, and Žižek, among others. The other as affirmation or rejection of the subject is a

2 See the Foucault's books The hermeneutics of the subject, The government of Self and Others I, and The Courage of truth: the government of Self and Others II.

3 Michel Foucault (2005, p. 2).

4 Michel Foucault (2005, pp. 10-11).

5 Michel Foucault (2005, p. 46).

6 Michel Foucault (2005, p. 57).

7 Michel Foucault (2005, p. 60).

complex debate that provides different modes of subjectivation, analyzed as private or public identities. Educationally, the relationship between the self and the other is a pedagogical relationship embedded in a focus of experience within a specific time and place. As Pinar says, the curriculum as a complicated conversation is not only a labyrinth of concepts but also a subjective reconstruction based on a lived experience, supporting "lively and radical thinking in the various national and regional fields of curriculum studies, studying how these fields respond to… specific occasions of complicated conversation."[8] So, what is curriculum as subjective experience?

According to Pinar,[9] it is a transformational project that links the subject to his personal and social experiences through a complicated conversation, intertwined with a *currere,* a lively and autobiographical experience. Nevertheless, the curricular conversation is a pedagogical issue and a personal action because "to care for the self is to know oneself,"[10] which emerges in political action. The care of the self is both "a requirement for everyone" (an ethical cleavage marked even on Athenian education, only accessed by young people destined to exercise power) and the starting point of a pedagogical conversation; it is also "an obligation that should last for the whole of one's life"[11] – the universal lifelong learning, as declares Delors in his Report.[12] The other moment to sustain a conversation, not in terms of a definitive goal, is the practice of the self as "a critical activity with regard to oneself, one's cultural world and the lives led by others."[13]

In its unique and interindividual art of living, the care of the self is a conversation about knowledge wherein "the other is an indispensable condition for the form that defines this practice to effectively attain and be filled by its object, that is to say, by the self. The other is indispensable for the practice of the self to arrive at the self at which it aims."[14] Thus, the pedagogical and curricular conversation is an in-between relationship centered

8 William F. Pinar (2006, p. 169).

9 William F. Pinar (2004).

10 Michel Foucault (2005, p. 67).

11 Michel Foucault (2005, p. 87).

12 Jacques Delors (1996).

13 Foucault (2005, p. 94) says, "The *instructio* is the individual's armature for dealing with events rather than training for a definite professional goal."

14 Michel Foucault (2005, p. 127).

on knowledge and specific types of mastership.[15] Self and other are two intertwined sides of a constituent dialogue of the subject – a knowledgeable dialogue – in which "the individual should strive for a status as subject that he has never known at any moment of his life. He has to replace the non-subject with the status of subject defined by the fullness of the self's relationship to the self. He has to constitute himself as subject, and this is where the other comes in."[16]

In pedagogical terms, the emerging moment of the other as a master emphasizes the master as "an effective agency *(operateur)* for producing effects within the individual's reform and in his formation as a subject. He is the mediator in the individual's relationship to his constitution as a subject."[17] The principle of the constitution of the subject becomes a pedagogical and curricular way of subjectivation in school, characterized by different styles of thought when formal education is an ideological issue. In Foucault' idea, the master is the indispensable other for the constitution of the subject by himself, namely in the sense of *Educere* ("offering a hand, extricating from, leading out of") and not in the traditional sense of *Educare* ("of the transmission of theoretical knowledge or of know-how").[18]

By his theoretical contribution of understanding schools, like asylums, prison, and hospitals as "the spatial testing of hierarchized surveillance" and punishment, Foucault critically analyzes the school as a "machine for learning,"[19] such as "a sort of apparatus of uninterrupted examination that duplicated along its entire length the operation of teaching,"[20] and the place of elaboration for transmissive and standardized pedagogy, in which happens "the movement of knowledge from the teacher to the pupil."[21] So, the

15 Michel Foucault (2005, p. 128), "Through the different characters who appear in this kind of dialogue— whether developed positively or negatively doesn't matter—it is easy to recognize three types of mastership, three types of relationship to the other person indispensable for the young man's training. First, mastership through example. The other is a model of behavior that is passed on and offered to the younger person and which is indispensable for his training… The second type of mastership is the mastership of competence, that is to say, quite simply, of the person who passes on knowledge, principles, abilities, know-how, and so on to the younger person. Finally, the third type of mastership is, of course, the Socratic mastership of dilemma and discovery practiced through dialogue."

16 Michel Foucault (2005, p. 129).

17 Michel Foucault (2005, p. 130).

18 Michel Foucault (2005, p. 134).

19 Michel Foucault (2005, p. 165).

20 Michel Foucault (2005, p. 186).

21 Michel Foucault (2005, p. 187).

pedagogical presence of the master occurs in a school centered on a school as a place to be discovered by the individual – and not in those terms of panoptical surveillance and punishment – to foster the care of oneself as one true principle. In Foucaultian perspective of the subject, "the self is the definitive and sole aim of the care of the self,"[22] becoming an opening out concerning pedagogy and civic activity, and not a transition to the other, even if it is indispensable for his constitution. As he argues, "one must take care of the self for itself, the relationship to others being deduced from and entailed by the relationship one establishes of self to self."[23]

Subjectivity is at the core of the pedagogical relationship between the self and the other within a curricular scenario without a mandatory project for learning. The self-cultivation with a trajectory from self to self and one attitude of "awareness, vigilance, and attention"[24] is the critical attitude of itself. The care of oneself as a metaphor of navigation "implies a knowledge *(savoir),* a technique, an art, in order to be undertaken well and to arrive at its objective. It is a complex, both theoretical and practical knowledge, as well as being a conjectural knowledge, which is very close, of course, to the knowledge of piloting."[25] Does the care of oneself mean a pedagogical opening act?

The pedagogical principle of opening out from the self to the other brings autonomy to the subject in a mediation, recognizing his responsibility to care for oneself. The starting point of the subject of self to self is an unquestionable principle to affirm the knowledge of himself as a lived experience of itself and different of the Christian and Marxist perspectives. It might seem not enough, spite itself becomes the alpha and omega of the own governmentality. The self is a unique construction on the boundaries of the other, establishing for the political activity (in polis' context) "a type of knowledge *(savoir)* and practices between which the Greeks and Romans recognized a certain kinship and for which they sought to establish a *tekhne* (an art, a reflected system of practices referring to general principles, notions, and concepts)."[26]

22 Michel Foucault (2005, p. 177).

23 Michel Foucault (2005, p. 205).

24 Michel Foucault (2005, p. 222).

25 Michel Foucault (2005, p. 249).

26 Michel Foucault (2005, p. 249).

Foucault does not recognize the subject living in the realm of the other based on "a theory of political power as an institution usually refers to a juridical conception of the subject of right."[27] For him, "the analysis of governmentality – that is to say, of power as a set of reversible relationships – must refer to an ethics of the subject defined by the relationship of self to self."[28] Hence, "power relations, governmentality, the government of the self and of others, and the relationship of self to self constitute a chain, a thread, and I think it is around these notions that we should be able to connect together the question of politics and the question of ethics"[29] – and indeed the pedagogy and curriculum issues. However, the care of oneself is a pedagogical subjectivity by the dialogue between the self and the other not to reduce the lack of knowledge or the ignorance of the self but to be itself involved by the knowledge (theoretical and practical *epistéme*) with the other. Foucault calls it "an open and an orientated preparation of the individual for the events of life,"[30] "transforming *logos* into *ethos*"[31] So, can the care of oneself emerge as a curricular subjectivity within the widely pedagogical subjectivity?

The curriculum as human experience

Despite its political controversies and conceptual approaches – namely Tyler's rationality[32] and Pinar's reconceptualization[33] – the curriculum is a field concerned with knowledge and how it becomes a human experience. Any discussion of knowledge contains subjectivities embedded in politics, processes, and educational practices as a style of thought understood in each specific time and space. These characteristics imply that curriculum, in its formal and informal context, is a project furthered by administrative interests with consequences to the subjects' life experience. Through

27 Michel Foucault (2005, p. 252).

28 Michel Foucault (2005, p. 252).

29 Michel Foucault (2005, p. 252).

30 Michel Foucault (2005, p. 320).

31 Foucault (2005, pp. 326-327) asks and answers, "And what is this *paraskeue?* It is, I believe, the form that must be taken by true discourse in order for it to be able to be the matrix of rational behavior. The *paraskeue* is the structure of the permanent transformation of true discourse, firmly fixed in the subject, into principles of morally acceptable behavior."

32 Ralph W. Tyler (1949).

33 William F. Pinar (1975a, 2004).

Foucault's words,[34] it is a "focal point of experience,"[35] especially away into of understanding the individual and the social worlds reflected on three imbricated three: "the formation of forms of knowledge (savoirs), the normativity of behavior, and the constitution of the subject's modes of being."[36] These are conceptual axes[37] that make up the subject "as a subject of a discourse of truth,"[38] but their context is constructed by the self and the other – "he may be a teacher who is more or less part of an institutionalized pedagogical structure."[39]

Other Foucault's contribution is the notion of dispositive, which may not be a recursive concept in his texts but is transversal to the three experiential axes. As an educational and pedagogical experience, the curriculum is a kind of regulation enmeshed in knowledge, power, and modes of subjectivation. As a dispositive of establishing social symbolic order, the curriculum is an alienation happening within a regulatory context. To Žižek, "the subject is deprived of (a part of) its substantial content, yet it gets something for this deprivation, either honour and wealth, which it gains in the place of the self that it has alienated from itself."[40] This concept is referred by Hegel as Bildung (culture or education through alienation).

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34 Michel Foucault (2010, p. 3).

35 Foucault (2010, p. 3), "These three elements—forms of a possible knowledge, normative frameworks of behavior, and potential modes of existence for possible subjects—these three things, or rather their joint articulation, can be called, I think, "focal point of experience."

36 Michel Foucault (2010, p. 41).

37 Foucault (2011, p. 9), "These three elements are forms of knowledge (savoirs), studied in terms of their specific modes of veridiction; relations of power, not studied as an emanation of a substantial and invasive power, but in the procedures by which people's conduct is governed; and finally the modes of formation of the subject through practices of self. It seems to me that by carrying out this triple theoretical shift—from the theme of acquired knowledge to that of veridiction, from the theme of domination to that of governmentality, and from the theme of the individual to that of the practices of self—we can study the relations between truth, power, and subject without ever reducing each of them to the others". To tell de truth, Foucault involves the connected analysis of modes de veridiction, the study of techniques of governmentality, and the identification of forms of practice of self interweave" (p. 8), by this study "the relations between truth, power, and subject without ever reducing each of them to the others" can be studied" (p. 9).

38 Michel Foucault (2011, p. 3). In another text, Foucault (2017, p. 12) asks, "what experience may the subject have of himself when faced with the possibility or obligation of acknowledging something that passes for true regarding himself? What relationship does the subject have to himself when this relationship can or must pass through the promised or imposed specialist discovery of the truth about himself?" Heidegger (2001, p. 269) discussed the question of the truth: "Dasein, as constituted by disclosedness, is essentially in the truth."

39 Michel Foucault (2011, p. 5).

40 Slavoj Žižek (2012, p. 317).

Such alienation means an "apparatus (dispositif) of the relations,"[41] "of subjectivity"[42] and "of knowledge-power"[43] immersed in distinct forms of governmentality of self and others – representing a "shift from colorful liveliness to gray order as an indicator of spiritual progress."[44] The educational apparatus, such as a symbolic mechanism that enacts the self to the other, is a deep process of subjectivation. Where Foucault[45] identifies a particular way of negativity[46] to oneself (violence, punishment, and subordination), Agamben[47] points out Hegel's notion of positivity "as the substantial social order imposed on the subject and experienced by it as external fate, not as an organic part of itself."[48] The dispositif is "a process of subjectification… in which living beings are incessantly captured."[49] As the subject is produced, the dispositif is "anything that has in some way the capacity to capture, orient, determine, intercept, model, control, or secure the gestures, behaviors, opinions. or discourses of living beings."[50]

According to Foucault,[51] "an apparatus is a much more general case of the episteme; or rather, that the episteme is a specifically discursive apparatus,

41 Michel Foucault (2017, p. 49).

42 Michel Foucault (2005, p. 319).

43 Michel Foucault (2008, p. 70).

44 Slavoj Žižek (2012, p. 397).

45 Michel Foucault (1980, pp. 194-195), "What I'm trying to pick out with this term [apparatus, dispositif) is, firstly, a thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral, and philanthropic propositions – in short, the said as much as the unsaid. Secondly, what I am trying to identify in this apparatus is precisely the nature of the connection that can exist between these heterogeneous elements. Thirdly, I understand by the term "apparatus" [dispositif] a sort of – shall we say – formation which has as its major function at a given historical moment that of responding to an urgent need." Foucault uses two different terms, "appareil" (State mechanisms of power) and "dispositif" (related to the subject and his becoming way). To Koopman (2019, p. 159), "Foucault's concept of the *dispositive* (a term that resists translation but resonates with my use of *assembly*)… can both limit our freedoms or open up our liberties. Formats thus form a treacherous terrain: a field of power."

46 Foucault (1980, p. 195), "On the one hand, there is a process of functional overdetermination, because each effect-positive or negative, intentional or unintentional-enters into resonance or contradiction with the others and thereby calls for a readjustment or a re-working of the heterogeneous elements that surface at various points. On the other hand, there is a perpetual process of strategic elaboration."

47 Giorgio Agamben (2009, p. 4). See Tyson E. Lewis (2013).

48 Slavoj Žižek (2012, p. 984).

49 Giorgio Agamben (2009, p. 11).

50 Giorgio Agamben (2009, p. 14).

51 Michel Foucault (1980, p. 197).

whereas the apparatus in its general form is both discursive and non-discursive, its elements being much more heterogeneous." Thus, in education and schools, the curriculum becomes a set of discursive and non-discursive domains intercepted by knowledge, power, and subjectivity. Being a dispositif, the curriculum is a type of subjectivation, in Deleuze's term, to whom apparatus "is a process of individuation which bears on groups and people, and is subtracted from the power relations which are established as constituting forms of knowledge [savoirs]: a sort of surplus-value. It is not certain that all social apparatuses [dispositifs] comprise these."[52] For Deleuze, a reader of Foucault, the distinct lines of an apparatus are divided into two groups: lines of stratification or sedimentation, and lines leading to the present day or creativity, respectively lines of establishing and of repudiation of universals[53]. As living beings, Deleuze reinforces,[54] "we belong to social apparatuses [dispositifs] and act within them" because we undergo a process of becoming in which "the lines of subjectivation indicate fissures and fractures."[55]

If the apparatus is the self-becoming other, in its lines of subjectivation, the curriculum is an intertwined line of knowledge, power, and subjectivity. It is a pedagogical apparatus. Althusser[56] proposes another understanding of apparatus, particularly the educational apparatus, through the following question: "What do children learn at school?" For the philosopher, the school's role in producing rules of the established order is a joint statement in Marxist language and precisely its mission in the realm of the *Ideological State Apparatuses*. So, "the school (but also other State institutions like the Church, or other apparatuses like the Army) teaches *know-how*, but in forms which ensure *subjectivation to the ruling ideology* or the mastery of its *practice*."[57] Considering the distinction between *Repressive State Apparatus*

52 Gilles Deleuze (1992, 161).

53 Deleuze (1992, p. 162), "two important consequences ensue for a philosophy of apparatuses. The first is the repudiation of universals. A universal explains nothing; it, on the other hand, must be explained. All of the lines are lines of variation that do not even have constant coordinates. The One, the Whole, the True, the object, the subject are not universals but singular processes of unification, totalization, verification, objectification, subjectivation immanent to an apparatus. Each apparatus is therefore a multiplicity where certain processes in becoming are operative and are distinct from those operating in another apparatus. This is how Foucault's philosophy is a pragmatism, a functionalism, a positivism, a pluralism."

54 Gilles Deleuze (1992, p. 161).

55 Gilles Deleuze (1992, p. 167).

56 Louis Althusser (1971, p. 132).

57 Louis Althusser (1971, p. 133).

and *Ideological State Apparatus*, Althusser uses the words violence and ideology to underly the difference, acknowledging the *Educational Ideological Apparatus* as a way of subjecting individuals in profound silence to the official order. As an ideological state apparatus, the school curriculum is not neutral but a contextualized construction with a particular intent – the term used by Althusser is *massive inculcation* – according to the ideology endowed in its historically-defined structures. Where is the subject in this Althusserian perspective?

Based on two interconnected theses – "ideology represents the imaginary of individuals to their real conditions of existence"[58] and "ideology has a material experience"[59] wherein a subject endowed with a consciousness believes and acts according to his ideas of his material practice[60] – Althusser describes a school day as a set of actions inserted into practices, "governed by the *rituals* in which these practices are inscribed, within the *material existence of an ideological apparatus*."[61] It is in this referential of practices, rituals, and ideological apparatus that the ideas of subject arise and are formed, according to two conjoint Althusser' s thesis: "there is no practice except by and in an ideology," "there is no ideology except by the subject and for subjects."[62] The ideology is a way of subjectivation through the notion of 'interpellation or hailing' in which it transforms individuals into subjects, "thus ideology hails or interpellates individual as subjects."[63] Subjects to Althusser are a free subjectivity (autonomy) and a subjected being (accepted submission) because "there are no subjects except by and for their subjection."[64] It is the recognition of the subject interpellated by educational apparatuses, transforming the curriculum into a being process of the subject. Is it the caring of oneself of Foucault, the individual of Althusser?

For Foucault, the care of the self is a more critical attitude of the subject than the free individual only recognized by his inner subjectivity. The

58 Louis Althusser (1971, p. 162).

59 Louis Althusser (1971, p. 166).

60 Louis Althusser (1971, pp. 167-168), "Throughout this schema we observe that the ideological representation of ideology is itself forced to recognize that every *subject* endowed with a *consciousness* and believing in the *ideas* that his *consciousness* inspires in him and freely aspects, must *act according to his ideas*, must therefore inscribe his own ideas as a free subject in the actions of his material practice. If he does not do so, *that is wicked*."

61 Louis Althusser (1971, p. 168).

62 Louis Althusser (1971, p. 170).

63 Louis Althusser (1971, p. 175).

64 Louis Althusser (1971, p. 182).

ideology is the realm of the other accepted by the individual being transformed into a subject, according to Althusser' s analysis[65], or the alienation as a process of annulling the subject, in the Agamben's words.[66]

The apparatus becomes a process of subjectivation and subjection to practices and rules of a particular ideology, eclipsing the individual and his interest. It is a biopolitical instrument of subjection, as Butler emphasizes based on Foucault and Althusser: subjection signifies "the process of becoming subordinated by power as well as the process of becoming a subject. Whether by interpellation, in Althusser' s sense, or by discursive productivity for Foucault, the subject is initiated through a primary submission to power"[67] and knowledge through the pedagogical apparatuses, especially from of structured curriculum and its invisible and explicit ways of subjectivation.

Žižek criticizes[68] Foucault and Butler regarding the centralization of the subject on itself, affirming "that the Foucaultian subject engaged in the "care of the self" remains caught in a closed loop of self-affection… remains attached to itself; relating to its (self) critical activity as the final point of reference." The new critical attitude involves, in Žižek's words, not precisely the acceptance of the paradigm a resistance to a dispositif but to foster a radical rupture: "The task of emancipatory politics lies elsewhere: not in elaborating a proliferation of strategies for how to "resist" the predominant dispositif from marginal subjective positions, but in thinking about the modalities of a possible radical rupture in the predominant dispositif itself."[69]

Nowadays, technological ideology is dominant, imposing its individualism on the subject by the continuous interpellation of data, in which the maxim is observed by the expression "be yourself from data." It is the realm of the Curriculum of Things, the hidden curriculum of the school curriculum in which performativity is widely related to algorithmic results, as will analyzed in Chapter 2.

65 Louis Althusser (1971).

66 Giorgio Agamben (2009).

67 Judith Butler (1997, p. 2). See Michel Foucault (1970).

68 Slavoj Žižek (2012, p. 994).), quoting Catherine Malabou (2005).

69 Slavoj Žižek (2012, p. 994).

Chapter 2 – The Curriculum of things

Ah yes, the future is now we say surrounded by things, including the Internet of Things.[1]

1 William F. Pinar (2019, p. 332).

The Internet of Things[2] is a source of data, information, and potential knowledge. However, data and information alone are not knowledge, only a source of knowledge. Data can be given context and meaning to create information, which in turn, when organized, can become knowledge.[3] Questioning knowledge is precisely the responsibility of curriculum study. It is the center of curriculum discourses and practices, especially in a digital society[4] based on a relationship between culture and technology. This interacting process of data, information, and knowledge has a technological logic to promote a global image, characterized by an individualistic focus on the user, according to their interests and a technical perspective of knowledge: the mining knowledge from data and information, that is, an operational knowledge.

Knowledge then can be exploited almost infinitely. Such architecture includes different properties, especially "tagging, sensing, shrinking and thinking" things.[5] The Curriculum of Things – a term coined by Laist[6] – flourishes through interconnected devices. He used it as an object-oriented pedagogical approach, an attempt to pursue the agenda of Husserl, whose motto was back to the things themselves.

2 Davies, Beauchamp, Davies, and Price (2019), "The Internet of Things (IoT) is a global network of data-sensing devices which pupil devices can access during science or other curriculum activities." In an era posthuman and submerged in the present, William F. Pinar (2019, p. ix) says: "we lose the perspective that the past provides. Technology dissolves time, replacing it with an endless immediacy, substituting simulation for embodied experience, ocularcentrism for orality, the cloud occluding what is concealed underneath the Internet of Things."

3 Russell A. L. Ackoff (1989).

4 Paulo Dias and João Correia Freitas (2020a).

5 Joshva D. Thiagarajan and R. Raja Subramanian (2019, p. 68).

6 According to Randy Laist (2016, pp. 1-4), the objective of this pedagogical model is to bring physical objects into the classroom and make them the center of intellectual activity. The students are implicated in the project of understanding them. The power of objects to undermine conventional disciplinary barriers is part of a more profound characteristic of objects: their silence (generative silence). Objects are inherently interdisciplinary. The physical existence of an object as the focus of inquiry increases the accessibility to less tangible forms of knowledge while also enhancing the personal relevance of this knowledge. The study of objects opens out into the study of our everyday lives while simultaneously provoking underlying philosophical questions. Objects combine elements of mundaneness and mysteriousness into a provocative cocktail of educational opportunities. He used it as an object-oriented pedagogical approach to pursue Edmund Husserl's agenda, whose motto was to *the things themselves*. Heidegger's (1967, 1971) concept is quite different.

What is a thing?

Philosophically, Kant's distinction between *appearances and things in themselves, or between phenomenon and noumenon, represents the sensible world and the intelligible world*.[7] Things or objects are associated *with these perspectives, but the* thing-in-itself *is the substantial background of the phenomenon. The t*hing-in-itself *does not have a dependence. It exists in the rational logic as a possibility, transcending space and time and* establishing itself as universal knowledge. Things are historically and culturally situated, coinciding with both an individual and an epochal or a group, marked by its subjectivities, wherein the human discourses are only one perspective. According to Husserl, knowledge is always related to an object which has one intentionality. The thing-in-itself is the object-consciousness relationship. Objects are acts of consciousness in a world in itself.[8]

Heidegger explores this phenomenological thought. First, deconstructing Kant's notion of the "thing-in-itself" – to whom "signifies that the object is an object in itself without reference to the human act of representing it", and "means an object that is no object for us, because it is supposed to stand, stay put, without a possible before: for the human representational act that encounters it,"[9] after affirming that a thing has the existential notion of spatiality and historicity, in a "totality of involvements," as a site of intelligibility of human beings in the ways of "being-here," "being-in-the-world" and "being-as-the other." Since "Men alone, as mortals, by dwelling attain to the world as world. Only what conjoins itself out of world becomes a thing."[10]

In his seminal book *What is a Thing?* Heidegger understands the term thing in both a narrower ("thing is that which can be touched, reached, or seen) and a broader sense ("the thing is every affair or transaction, something that is in this or that condition, the things that happen in the world -occurrences, events.")[11] The thing is what "is a something and not nothing."[12] The distinction between something and nothing is particularized by the

7 Alexandre F. Morujão (1981) and Fernando C. Mattos (2018).

8 Edmund Husserl (1964).

9 Martin Heidegger (1971, p. 174).

10 Martin Heidegger (1971, p. 180).

11 Martin Heidegger (1967, p. 5).

12 Martin Heidegger (1967, p. 6).

propriety of a thing: simultaneously singular and historical. For Heidegger, "The things are particular"[13] and "we only exchange subjective pictures of things with one another."[14] At the same time, the things "are indeed within space and time. Space and time are a frame, an ordering realm, with the help of which we establish and indicate the place and time point of the particular things."[15] Such acknowledgment is another way of saying that the thing is embedded in our historically and spatially everyday experience because "the *this* is a general characteristic of the thing and belongs to its thingness." It is the generality within particularity, wherein "space and time are only a frame for the thing."[16]

Thus, the Internet of Things is more complex in its technological dimension. The Internet as a curricular tool has been widely distinguished. According to how to build educational environments, it is both a pedagogical and unpedagogical tool, but it is "not "guarantee that one will acquire true beliefs, understanding or even knowledge."[17] The Internet is an intermeshed relationship of data, information, and knowledge, creating a global and individual library or museum by its books, journals, documentaries, and objects. A space with free or bought access. Nevertheless, when a person uses the Internet – even freely[18] – he is transformed into a cog of the one complex system. Hereafter he is a product in a global market, and will be even more so with metaverse technologies. Indeed, he is a user of hardware and software components, increasingly complexified and individualized by a global network.

13 Martin Heidegger (1967, p. 15).

14 Martin Heidegger (1967, p. 12).

15 Martin Heidegger (1967, p. 17).

16 Martin Heidegger (1967, p. 31). Responding to his own question – What is a thing? – summarizes: "First, with regard to *what* is in question – the thing –with an admittedly very poor light we have searched the horizon in which, according to tradition, the thing and the determination of its thingness stand. We reached a double result: first, the frame of the thing, time-space, and the thing's way of encountering, the "this," and then the structure of the thing itself as being the bearer of properties, entirely general and empty: to form the one for a many. Second, we tried to characterize the question in regard to the manner in which it must be asked. It turned out that the question is historical. What is meant by that has been explained." (p. 54)

17 Richard Heersmink (2018, p. 1).

18 For Tim Berners-Lee (2020, p. 1), "As COVID-19 forces huge change to our lives, we have an opportunity for big, bold action that recognises that, as with electricity in the last century and postal services before that, the web is an essential utility that governments and business should combine to deliver as a basic right."

Due to the predominance of information in the educational context, the learner needs to have the discernment to analyze the quality of information sources and the content of its messages. He also needs to have the critical analysis to use it as an epistemic source, verifying source validity and identifying the misleading information[19]. If the Internet is an essential epistemic source, Heersmink argues[20] that the learner must have the "virtue epistemology," being "less concerned with the nature of truth and more concerned with the cognitive character of agents… it is concerned not so much with *how* we think but with how we *should* think."

With the datafication and digitization of education brought by the Internet,[21] curriculum study is a normative question with its technological dimension. It is a light towards a normal, stipulating and promoting how to think well, that is, "a virtual cave generating its own unnatural light."[22] As a thing, the virtual[23] is a plurality of spaces and times, sharing different languages in-between the individual intelligence (subject) and collective intelligence (cyberspace). In this context, the global communicative universe is multimodal, multichannel, and multiplatform, creating a plurality of educational spaces. The curriculum is programmed according to the cultural aspirations of networked individualism and an emphasis on personal choice, personal projects, and self-enterprise implanted in Internet culture.[24]

19 Richard Heersmink (2018, p. 5), "epistemologists have also analyzed the relation we have to Internet search engines, pointing out two potentially undesirable epistemic consequences: (1) confirmation bias due to personalised search results and (2) misleading and inefficient autocompleted search terms."

20 Richard Heersmink (2018, p. 2).

21 Williamson (2017, p. 23), "The categorization and tabularization of educational institutions, spaces, processes and individuals is perhaps the ideal aim – or dominant imaginary – of big data in education. In this sense, what Foucault designated learning machines takes on new resonance in the era of big educational data."

22 William F. Pinar (2019, p. 31). Epilogue.

23 Pierre Lévy (1995). Reading Levy's book, Mansfield (2000, p. 3) asks: "What is virtualisation? Lévy must tackle this question in a work called Qu'est-ce que le virtuel? In his answer to this, he introduces the names of Gilles Deleuze and Michel Serres but wishes to work in the other direction from them. His study analyses the transformation from one mode of being to another, like Deleuze, but studies the move from the real towards the virtual. It is this upward movement from the real towards the virtual (ce retour amont), which he thinks characterises the development of the human species. The virtual is not the false nor the imaginary. The virtual is the power that something has of becoming something. A tree is virtually present in a seed. The virtual and the actual are simply two ways of being different."

24 Ben Williamson (2013).

Merging technological and relational subjectivities, the Internet of Things creates a specific imaginary about the curriculum, materialized in technological devices and mining information, in a context of valuing data literacy as school knowledge, such as financial literacy, in order to respond to market interests. It is normative thinking. However, in a complex system of knowledge, "though it may not constitute a discipline or school subject, information literacy needs to be part of a knowledge-driven curriculum."[25] Thus, the Curriculum of Things is more than data literacy. It is the materiality of interconnected devices in which the humans are subsumed in information webs of things, existing in a computerized space.[26] A space of determination controlled by complex hardware and software systems, in which "people's everyday lives are being transformed by digital data."[27] In this sense, the study of the curriculum is embedded in digital technologies[28] as if it were the expression of screen studies, promoting an advanced technical culture, in which the Internet, distance learning, and digital immersion cannot be ignored.[29]

On the contrary, as an open space that offers interpretative possibilities to transform information into knowledge, the study of the curriculum can be relevant if the Internet is a complementary source of that study, that is, a continuous source of information and continuous discovery of relationships, through dictionaries, educational games, scientific articles, opinion texts, specialized books, films, scientific documentaries, images, and sounds. Based on the perspective "that teachers are not merely facilitators of learning but pedagogic authorities in whatever field they have specialized in,"[30] Young argues[31] about the Internet: "we still have no evidence that an information resource (however, extensive and accessible) can, on its own, promote *real* learning."

25 Elizabeth M. Mceneaney (2015, p. 813).

26 It is the space of new learning webs and new educational communities, according to Paulo Dias (2012).

27 Ben Williamson (2017, p. 27).

28 Neil Selwyn (2021) looks at what technology is and reflects on the meaning of digital technologies in education as artifacts, devices, activities, practices, and contexts.

29 For Melanie Reyes and Elizabeth A. Segal (2019, p. 375), "With momentum from software development and Internet infrastructure expansion, distance education shifted toward becoming largely digital immersion." The authors discuss whether globalization or colonization in online education is opportunity or oppression, seeing online education as an instrument of colonization and oppression by neoliberal approaches present in the educational context.

30 Michael Young (2013, p. 102).

31 Michael Young (2013, p. 103).

> Thus, he considers a "mistake of all such theories is to use the amazing capacity everyone has for experiential or informal learning as a model for the quite different task of moving beyond our experience – the opportunity that schools and teachers uniquely provide."[32] The question about the real learning promoted or not by the Internet is an academic and pedagogic issue. The Internet is a powerfully informational resource promoting learning through different devices used in schools and non-school settings that offers "potentially infinite experience, with many more opportunities beyond non-virtual school and everyday life experience to become familiar with places and ideas."[33] The real learning environment is described by OCDE[34] through the dynamic, flexible, and personalized idea of curriculum.

Thus, curricula will have to be dynamic rather than static. They will have to allow for non-linear learning paths rather than expect all students to follow linear progressions along a single, standardised path. They will have to be more flexible and personalised to ensure that each student's unique talents are developed so that all students can realise their full potential."

Curriculum practices explore both kinds of learning environments because the school is not the only place where learning happens. There is no specific context as well as no specific resource, but the importance of the Internet is increasing positively and negatively. Pinar[35] brings back the idea of a virtual cave:

> The trouble with technology is that the future becomes represented by novelty, a new device or idea, not the ethically animated reconstruction of what has before been revealed. Even the present as a distinctive, meaningful, temporal moment disappears once we're inside the screen, a web of both external and internal necessity, in which thought and action, desire and thought, become fused, extinguishing that light shining, however faintly, on the wall of the cave we inhabit.

32 Michael Young (2013, p. 104).

33 Lizabeth M. Mceneaney (2015, p. 813).

34 The Organization for Economic Cooperation and Development (2019a, p. 11).

35 William F. Pinar (2019, p. 382).

However, more than the validation of learning resources, the OECD[36] adopts the learning compass metaphor (and the notion of agency[37]) to emphasize "the need for students to learn to navigate by themselves through unfamiliar contexts, and find their direction in a meaningful and responsible way, instead of simply receiving fixed instructions or directions from their teachers." The Internet of Things[38] is not a thing-in-itself, but instead a human and posthuman construction.[39] Thus, the thingness of curriculum places the human at its center, even if imperfection and inefficiency are properties that only he can have through a consciousness of the world, others, and itself, i.e., a historically and spatially consciousness.

The human tradition of a thing is challenged by virtual reality. The fundamental idea of the Internet of things is to enable ubiquitous computing with the use of uniquely addressable devices to identify information and to enhance the information exchange with little to none human interaction."[40] This is a technological necessity, blurring the path in which curriculum becomes a freedom space, because "not only does technology tend to determine our course of action now, it can recast what we imagine as both "our course" and "our action", confining these to what software allows."[41] Digital technologies transform curriculum into a virtual global space, productively and efficiently. As Pinar argues,[42] "technology enables communication through standardization."

The Internet is a big picture of the world, and "when we enter the picture, we become part of this world, and we are subjected to its limits. This effect

36 The Organization for Economic Cooperation and Development (2019a, p. 20).

37 Carlinda Leite, Angélica Monteiro, Rita Barros, Rita and Nicole Ferreira (2022, p. 7) remind that "the pedagogical/curricular practices aligned with a transformative pedagogy that mobilizes the agency power of the students constitute adequate procedures for the sustainability and the development of the objectives of the 2030 Agenda."

38 Subodh Mendhurwar and Rajhans Mishra (2018) use the notion "Social Internet of Things."

39 Martin Heidegger (1977, p. 289), "The will to dominate becomes all the more urgent the more technology threatens to escape human". Conversely, admitting our contemporary posthuman reality, to Micahel Hardt and Antoni Negri (2017, pp. 109-110), "Our intellectual and corporeal development are inseparable from the creation of machines internal and external to our minds and bodies. Machines constitute and are constituted by human reality;" "Humans and machines are part of a mutually constituted social reality. The fact that machines are part of human reality and constituted by human intelligence does not mean, of course, that all machines are good or that technology solves all problems."

40 Bhaga N. Silva, Murad Khan, and Kijun Han (2018, p. 205).

41 William F. Pinar (2019, p. 375).

42 William F. Pinar (2019, p. 7).

intensifies in the digital sphere,"[43] invoking the panoptikon in which we participate within it. In Heidegger's words,[44] "Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it." The Curriculum of Things is a normative experience and not a lived experience, even constituting a pathway for each student, where the knowledge patterns "are based on the data collected by the sensory nodes (objects) in the institution learning environment. Information is generated by applying data mining algorithms for each concerned activity."[45]

It emerges "as a network of interconnected uniquely identifiable objects. Its basic objective is to create smart environment/spaces and self-aware things,"[46] fostering at the same time the student performance evaluation. The Curriculum of Things is a normative infrastructure, individually, politically, economically, ideologically, and culturally embedded in social practices. As Williamson argues[47], data "infrastructures are not merely a technical system… are both technical, built on data technologies, and associated software packages, but also social and human accomplishments, requiring new kinds of knowledge workers, designers, engineers and so on."

As a learning space in which the digital footprint can determine the epistemic source of information and knowledge, the student-navigator is led by algorithms transforming it into cogs of a global and efficient learning system[48]. However, this learning happens in a vast marketplace, wherein the "knowledge is and will be produced in order to be sold, it is and will be consumed in order to be valorized in a new production: in both cases, the goal is exchange. Knowledge ceases to be an end in itself, it loses its *use-value*."[49] The Curriculum of Things is a global marketplace of information and

43 Anna Kouppano (2018, p. 132).

44 Martin Heidegger (1977, p. 4).

45 Prabal Verma and Sandeep K. Sood (2018, p. 102).

46 Prabal Verma and Sandeep K. Sood (2018, p. 102).

47 Ben Williamson (2017, p. 37).

48 See, for instance, Said and Albagory (2017). Another example: IoT@School: "is a resource designed to bring the Internet of Things (IoT) concept into the classroom through device data sharing and collaboration. IoT@School is a project which aims to bring together a series of Internet connected objects to enhance the classroom experience. The app provides current sensor readings and graphs historic data sets to enable schools and their environs to be understood better. Using IoT@School technology it is possible to compare microclimates across a school campus and to make comparisons with different parts of the world. You can also use the system to monitor classroom learning environments to increase efficiency."

49 Jean- François Lyotard (1984, pp. 4-5).

Knowledge, although the open access to knowledge is a movement toward equal access, such as the freely usable Open Educational Resource, being the Internet a "technological tool for the process of knowledge building,"[50] which requires a critical attitude from students.

The student as navigator, in the learning compass metaphor, is not only a challenging image but inquiry-based learning if the critical education prepares him for the dangers of the technological literacy and not for a "flaccid education," that is to say,

> "children stare at screens, unending distraction, completing tasks online in a curriculum designed by software engineers, teachers relocated to the 'gig economy' wherein they are hired as contract workers – no longer public but now decidedly servants – checking to see the kids have completed their 'individualized' assignments for the day."[51]

So, the curriculum is not a thing of sensors and connected devices in a screen but, according to Pinar's concept, a subjective reconstruction: "subjectivity is no longer a hall of mirrors the technological sensorium constructs the occupies and hollows out," and "subjective reconstruction is not subjective engineering; it is, rather, attunement we fitted for."[52] Technological devices are powerful instruments of subjectivity production, moving the subject into predefined ways of knowing.

The curriculum is a human necessity and not a technological necessity. However, looking at the ongoing moment, the instrumental knowledge – of performative language and Big Data, operating in "a vast market for competence in operational skills"[53] – devaluates the "critical and comprehensive knowledge."[54] We believe in the essence of technology as a "human activity," even it is "a means to end," according to Heidegger.[55] The character of being

50 Barbara Means (2008, p. 137).

51 William F. Pinar (2019, p. 389).

52 William F. Pinar (2019, pp. 384, 385).

53 Jean-François Lyotard (1984, p. 51).

54 Dominique Pestre (2013, p. 39).

55 Martin Heidegger (1977, p. 16).

human is the essence of the curriculum, in its imperfect garden[56]. In regards to curriculum, information is not enough. As Pinar says:[57]

> The academic labour of study and teaching is not only a matter of acquiring and conveying information, it is the ongoing professional obligation to think through what one learns, maintaining one's openness to the world… Neither study nor understanding comes automatically, as the triumphant omnipresence of machines and their applications might imply. Study is not a matter of manipulation or convenience: its conduct requires commitment, conviction, courage.

It is a critical and subjective challenge that is not present in the hardware and software materiality of the Curriculum of Things.

Concerning technology

From the philosophical thought of Heidegger[58], one of most authors had discussed the question of technology, depicting his complex interpretation[59], two central questions can be addressed: What is the technology? What is the essence of technology?[60]

"Technology is not equivalent to the essence of technology," Heidegger[61] says, as metaphorically, a tree is not a forest. In the notion of technology

56 For Tzvetan Todorov (2002, p. 238), we can "prefer the imperfect garden of humankind to any other realm, not as a blind alley, but because this is what allows us to live in truth."

57 William F. Pinar (2019, pp. 190, 191).

58 William Lovitt (1977, p. xiv), "The roots of Heidegger's thinking lie deep in the Western philosophical tradition. Yet that thinking is unique in many of its aspects, in its language and in its literary expression. In the development of his thought, Heidegger has been taught chiefly by the Greeks, by German idealism, by phenomenology, and by the scholastic theological tradition. These and other elements have been fused by his genius of sensitivity and intellect into very individual philosophical expression."

59 Martin Heidegger wrote about technology at least in three texts: Contributions to philosophy (of the event), 1938/1989 (Bloomington: Indiana University Press); The question concerning technology and other essays, 1953/1977 (New York, NY: Harper and Row); Discourse of thinking, 1959/ 1966 (New York, NY: Harper & Row).

60 Martin Heidegger (1993a, p. 244), "For technology does not go back to the *techne* of the Greeks in name only but derives historically and essentially from *techne as* a mode of *aletheuein,* a mode, that is, of rendering beings manifest *[Offenbarmachen].* As a form of truth technology is grounded in the history of metaphysics, which is itself a distinctive and up to now the only perceptible phase of the history of Being."

61 Martin Heidegger (1977, p. 4).

its conceptions or statements are respectively related to instrumental and anthropological definitions: "We ask the question concerning technology when we ask what it is. Everyone knows the two statements that answer our question. One says: technology is a means to an end. The other says: technology is a human activity. The two definitions of technology belong together. Thus, based on these arguments, "the current conception of technology, according to which it is a means and a human activity, can therefore be called the instrumental and anthropological definition of technology." This specific approach to the definition of technology reflects the instrumental conception of which "does not show us technology's essence." Given its instrumentality, the technology "has an effect as its consequence is called a cause,"[62] asking Heidegger: What is the instrumental itself? Within what do such things as means and end belong?[63]

These two questions have effects due to their causality because the essence of technology is a way of thinking through questioning the human being. Heidegger further argues that causality is related to operational thinking in order to obtain results and effects. From the four causes - the *causa materialis* (the material); the *causa formalis* (the form); the *causa finalis* (the end); the *causa efficiens* (which brings about the effect that is the finished)[64] – the technology is itself revealed in its instrumentality. If "the four causes are the ways, all belonging at once to each other, of being responsible for something else"[65], the instrumentality is based on causality and "the *causa efficiens*, but one among the four causes, sets the standard for all causality."[66]

Such ways of being responsible are also modes of occasioning: "The modes of occasioning, the four causes, are at play, then, within bringing-forth. Through bringing-forth, the growing things of nature as well as whatever is completed through the crafts and the arts come at any given time to their appearance."[67] Questioning the essence of the technology, Heidegger assures: "Technology is therefore no mere means. Technology is a way of revealing. If we give heed to this, then another whole realm for the essence

62 Martin (Heidegger (1977, p. 5).

63 Martin (Heidegger (1977, p. 6).

64 Martin Heidegger (1977, p. 6).

65 Martin Heidegger (1977, p. 7).

66 Martin Heidegger (1977, p. 7).

67 Martin Heidegger (1977, p. 11).

of technology will open itself up to us. It is the realm of revealing, i.e., of truth"[68] (or *Aletheia* or *veritas*).

This way of revealing is significant when the truth becomes the essence of the technology and not of its instrumentality. From this Heidegger's perspective, "Technology is a mode of revealing. Technology comes to presence [West] in the realm where revealing and unconcealment take place, where *aletheia*, truth, happens."[69] Heidegger further develops such sense of revealing through the concept of enframing, a way of revealing: "Enframing means that way of revealing which holds sway in the essence of modern technology and which is itself nothing technological"[70] but a taken way into a freeing claim. In Heidegger's discourse of constantly questioning, is technology a dangerous thing? The dangerousness of technology comes with its perspective of a neutral thing. However,

> What is dangerous is not technology. There is no demonry of technology, but rather there is the mystery of its essence. The essence of technology as a destining of revealing is the danger. The transformed meaning of the word 'Enframing' will perhaps become somewhat more familiar to us now if we think Enframing in the sense of destining and danger.[71]

The revealing is a danger if the technology comes to be considered a technical instrument in its multiplicity of things. The master's will happens when he tends to avoid questioning the truth as a way of thinking or a revealing and framing destine. Because of both concepts of revealing and framing, the technology is somewhat different from the essence of technology, according to the two Heidegger's start questions. Hence, what is good technology? The best (or the worse) technology is a non-question because its discussion is also the technology realm, namely in an era of digital technologies, affecting everybody's lives. After all, the tecnhnology has the power of conditioning.[72]

68 Martin (Heidegger, 1977, p. 12).

69 Martin Heidegger (1977, p. 13).

70 Martin Heidegger (1977, p. 20).

71 Martin Heidegger (1977, p. 28).

72 To Michalinos Zembylas and Charalambos Vrasidas (2005), information and communication technologies can be interpreted as a form of electronic colonization.

Based on two kinds of thinking – the calculative thinking and meditative thinking[73] – Heidegger notes the particularity and usefulness of the calculative thinking to emphasize its special kind, including planes, purposes, and definitive results:

> This calculation is the mark of all thinking that plans and investigates. Such thinking remains calculation even if it neither works with numbers nor uses an adding machine or computer. Calculative thinking computes. It computes ever new, ever more promising, and at the same time more economical possibilities. Calculative thinking races from one prospect to the next. Calculative thinking never stops, never collects itself. Calculative thinking is not meditative thinking, not thinking which contemplates the meaning which reigns in everything that is.[74]

Calculative thinking is the own room of the technology in its algorithm instrumentality – we say for the ongoing days. Technology is rarely neutral, enhancing the operational knowledge, as observes Pestre: "the nature of this knowledge is new: what matters is that it makes *hic et nunc* the action, its effect and not its understanding."[75] In Heidegger 's words,

> it would be foolish to attack technology blindly. It would be shortsighted to condemn it as the work of devil. We depended on technical devices they even challenge us to ever greater advances. But suddenly and unaware we find ourselves so firmly shackled to these technical devices that we fall into bondage to them.[76]

In order to have a critical attitude concerning technology, combining distanced and closed comportments, being human is expected to adopt a release[77] attitude. It is a critical involvement, taking the way of understanding from the technical devices, saying simultaneously yes and no:

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73 Martin Heidegger (2003a, p. 89), "There are, then, two kinds of thinking, each justified and needed in its own way: calculative thinking and meditative thinking."

74 Martin Heidegger (2003a, p. 89).

75 Dominique Pestre (2013, pp. 21-22)

76 Martin Heidegger (2003a, pp. 93-94).

77 For Aaron Wendland, Christopher Mervin, and Christos Hadjiannou (2019, p. 7, "The term *Gellassenheit* is a relatively standard German word that means something like tranquility or equanimity, and it is most strongly associated with the 13th century theologian Meister Eckhart. Heidegger, for this part, offers a detailed accent of *Gellassenheit in Country Path Conversation*, and in that *text Gellassenheit* is conceived as a releasement from a response to the dangers of modern technology."

> But will not saying both yes and no this way to technical devices make our relation to technology ambivalent and insecure? On the contrary! Our relation to technology will become wonderfully simple and relaxed. We let technical devices enter our daily life, and at the same time leave them outside, that is, let them alone, as things which are nothing absolute but remain dependent upon something higher. I would call this comportment toward technology which expresses *yes* and at the same time *no*, by an old word, *releasement toward things*.[78]

This ontological relation to technology, wherein the being human is a "meditating being,"[79] as Heidegger argues, is not in the particularity of calculative thinking but meditative thinking. For Heidegger,

> In this excuse only this much is true, meditative thinking does not just happen by itself any more than does calculative thinking. At times it requires a greater effort. It demands more practice. It is in need of even more delicate care than any genuine craft. But it must also be able to bide its time, to await as does the farmer, whether the seed will come up and ripen.[80]

Backing to "The Question concerning technology," and considering its start words, questioning builds a way – a way of thinking – by which the being human in his relation to things faces problems related to truth and freedom, whenever he demands the experience of happens. This Heidegger's way of thinking, even if his ideas are scarce about technology[81], is projected into this space-time that we experientially live. The focus is mainly on reflexive thinking, eschewing the calculative thinking as dominant by its higher status in the digital world.

In the Internet of Things, causality or mode of occasioning is based on information (the materiality), occurring in virtual context (the formality), with purposes (the end) of creating efficiency (the results). This causality is conformed to the dominant culture of the marketplace, in which the efficacy

78 Martin Heidegger (2003a, p. 94). For Bret W. Davis (2007, p. xxiv), "Yet Heidegger does not a simply call for a retreat from the world of technology. What he says is that we need to learn to "let technical devices enter our daily life, and at the same tine leave them outside."

79 Martin Heidegger (2003a, p. 89).

80 Martin Heidegger (2003a, p. 89).

81 However, Heidegger continues to offer a deep approach to the essence of technology.

results in both reduction of human imperfection and enhancing individuality in a global dimension. Thus, the truth is an internalized notion of calculative knowing, similarly to operational knowledge, bringing the extractive knowledge from the data. With the Curriculum of Things comes an empirical emphasis on what is being-itself, which is interpreted as a condition of possibilities, not being neutral or illusory. The ground of curriculum now is the operational knowledge, demoted to information,[82] the efficient causality of the digital subjectivity.

Such subjectivity sustains the digital society and affirms its calculative and individualized nature, devaluating critical knowledge. With the moving of curriculum to information, instrumentality remains an uncritical device and represents the prevalence of the curriculum technological approach, denominated today as the curriculum of numbers. Instead, the interconnected things reign over the human subjectivity, transforming the curriculum into certain things that reinforce themselves as the technological truth, even surfing over disrupted information. Study is deeply embedded in technological devices, which are the new digital roots of operational knowledge.

The inclination towards things – in Heidegger's thinking – makes sense in a new posture that posits technology as imposing "calculative thinking [that] may someday come to be accepted and practiced *as the only* way of thinking[83]. Paraphrasing Heidegger,[84] the growing *reflexive* thoughtlessness[85] must therefore spring from process that gnaws at the very marrow of being human[86] today: "being human today is in flight from thinking. This flight-from-thought is the ground of thoughtlessness."[87] Following still Heidegger's thought, "we must first again learn how to ask"[88] because the things stand in different truths on the ground of our everyday experiences. To convert information into knowledge, through the Curriculum of Things, we need to reflect upon different truths that are surfing in its web of webs where live interacting consumers are transformed in individualized eco-

82 Colin Koopman (2019).

83 Martin Heidegger (2003a, p. 95).

84 Martin Heidegger (2003a, p. 88).

85 In the original "growing thoughtlessness."

86 In the original "man."

87 Martin Heidegger (2003a, p. 88).

88 Martin Heidegger (1967, p. 15).

nomic and political data. The usefulness of things increases with the control of the digital footprint of each and all internet subjects.

If big data are business models by which the information is presented according to personalized profiles, the truth emerges as a way of persuasive discourse, transforming curriculum in a vast marketplace of calculative thinking. In a Curriculum of Things, the main purpose is to provide information by collective albeit individualized action, with unequal access. The curriculum depends on a change in student attitudes concerning his capacity (and possibility) to navigate. The formal or informal curriculum is always a template, and the template of the informal curriculum mediated by technological devices is highly standardized and constantly changing. It is a template in which particularity does not predominate over similarity. For Heidegger,[89] "A thing is the existing bearer of many existing yet changeable properties." Nothing is infinite, and all is naturally changeable. The problem occurs when things change without to transform their intrinsically economic nature, accenting the digital subjectivity.

Digital subjectivity

In his reflection on capitalism, Wells (2020) asserts that capitalism rewrites the human narrative, reorganizing its affairs to suit, and when conditions change because of digital technologies, in an evolutionary fashion. In a new order of things, capitalism not only develops its markets but finds new profits. New technologies are part of the development of capitalist regimen, continuously founding new avenues of growth as perfect competition both in the past and present or in the future. Based on globalized economies of scale, the technology giants concerned Internet, and digital technologies can channel consumers to specific goods and services, transforming economic life through its objectives of efficiency and profits. As a permanent revolution, capitalism's power is a continuous flux of self-preservation, self-regeneration, and metamorphosis. It creates the digital subjectivity that is the basis of the Curriculum of Things, established as the curriculum of the future, in the frame of surveillance societies, as Zuboff identifies by her notion of *surveillance capitalism,*[90] that is, a new economic order of control the personal privacy by big tech companies.

89 Martin Heidegger (1967, p. 34).

90 Shoshana Zuboff (2019, p. 12), "A new economic order that claims human experience as free raw material for hidden commercial practices of extraction, prediction, and sales; a parasitic economic logic in which the production of goods and services is subordinated to a new global architecture of

The subject becomes a free raw material for hidden commercial practices of extraction, prediction, and sales in the foundational framework of a surveillance economy and a new instrumentarian power. Challenges to society and subject are starling, transforming the human experience in a prediction product traced in a new kind of marketplace for behavioral predictions that she calls *behavioral futures markets*.[91] Several authors had realized a deep analysis of such a curriculum from distinct fields of knowledge. One of those is Williamson. Reading his texts[92] written in the digital age, a substantive argument, I propose, can represent his ideas: the digital future based on one new approach of the curriculum already run in formal and informal educational settings. It implies a new style of thinking, a new paradigm, and new forms of governance.

A new thinking style about society in today's digital age is saturated with technological metaphors, in which big data and algorithmic techniques of data mining and analysis performed are proliferating and gaining credibility. It is the time of digital subjectivity becoming prevalent in our daily lives, with consequences in how the curriculum is put into perspective: an issue not only of technological but also commercial interest. The curriculum, Williamson observes,[93] "is the intellectual center of schooling and its main message system," increasingly related to the economic technological style of thinking.

Just as the past was dominated by the linear and bureaucratic process, making the curriculum a technical task of planning, implementation, and evaluation – according to Tyler,[94] "the purpose of the rationale is to give a view of the elements that are involved in a program of instruction and their necessary interrelations" – so the future of the curriculum is already being defined by a globalized technological process, rooted in seductive accountability. The common curriculum words belong now to a virtual, de-

behavioral modification; a rogue mutation of capitalism marked by concentrations of wealth, knowledge, and power unprecedented in human history; the foundational framework of a surveillance economy; as significant a threat to human nature in the twenty-first century as industrial capitalism was to the natural world in the nineteenth and twentieth; he origin of a new instrumentarian power that asserts dominance over society and presents startling challenges to market democracy; a movement that aims to impose a new collective order based on total certainty; an expropriation of critical human rights that is best understood as a coup from above: an overthrow of the people's sovereignty."

91 Shoshana Zuboff (2019, p. 18).

92 Ben Williamson (2013, 2017).

93 Ben Williamson (2013, p. 15).

94 Ralph W. Tyler (1949, p. 128).

centralized and globally dynamic world, simultaneously homogenized and shaped by private interests of software developers.

In a globalized world, digital subjectivity becomes a reality, striking the hive-individualism, that is the shared identities as member of a digital group, and the individual way style of technological devices. At the same time, it is in the virtual world where each individual lives by their digital citizenship and in which public learning occurs in a connective and hybrid system. Therefore, the importance of boundaries between subjects and disciplines[95] is rejected as curricular practice. The curricular debate has struggled in how to distinguish knowledge: on the one hand there is the academic, cognitive, universal, and the authoritative knowledge, framed on disciplines and presented as "savoirs de l'école". On the other, there is the experiential everyday knowledge, including the web knowledge in its less hierarchical forms.[96]

Being a world of many worlds, a world characterized by fluidity, interdependency and dynamism,[97] while remaining parallel, at least in the post-truth era dominated by misinformation and fake information, the Internet is a powerful source for information navigating through the market rules because it is neither universal nor free in terms of access. Nevertheless, data management makes it even more powerful, increasing its efficiency in the predictability of information. Every corner of things is embedded in data, information, and knowledge, transforming fact-based management into a complex human and not-human decision process.

The algorithm indicates how to act and think by socially and individually calculated practices, a thinking style for better predicting from data is. Education [and curriculum], Williamson asserts[98], is illuminated by an "ongoing construction of data infrastructure for knowledge production … orchestrated by powerful technology companies, and increasingly enacted by calculative practices encoded in algorithms that exceed human capacities". Thingness is no more related to empirical facts, but its new value-used

95 Williamson (2013, p. 29), "the soft open curriculum for the future is organized according to principles of connectivity and hybridity. Connectivity and hybridity reject the importance between subjects and disciplines, and educational hybridizers instead argue for greater integration and blurring question between academic, workplace, and experiential learning. Curriculum connectivity and hybridity celebrate malleable boundaries, integration, and interpenetration."

96 Michel Young (2013); Dominique Pestre (2013).

97 For example, the may worlds of Hugh Everett, an American physician.

98 Ben Williamson (2017, p. 116).

constitutes a significant break with the traditional perspective. A thingness determination stands the particular and its events not only as what makes the "*hic* et *nunc*"[99] but as what can be understood by a nodal knowledge, that is, a "network of contents and concepts that can be connected up into optimal pathways for each individual."[100] However, this new analytical knowledge present in a datafying and digitizing education[101] reinforces the calculative and accountable forms of the operational or practical knowledge. According to Domingos[102] we are living in the age of algorithms – sequences of instruction telling a computer what to do – based on thinking statistically to predict the curricular knowledge modelled for each and every different learner.

Datafication [and digitization] becomes a new paradigm in science and society, by Williamson's words: "the transformation of social action into online quantified data to enable real-time tracking, monitoring and predictive analysis of people's behavior"[103] through sociotechnical data infrastructures, represent "a shift from the qualitative governance of the social to the quantitative governance of the informational."[104] This old (in its accountable form) and new (in its digital technological database) paradigm emphasizes Heidegger's calculative thinking[105] interpreted as practical knowledge, imposing new forms of governance, as well as new learning spaces and contents.

Base-data knowledge surpasses all others in technologization. Mining data – presented as new capital related to connectivity – constructs value from the complexity of the information, the technological infrastructure of the Curriculum of Things, according to one data-driven approach[106] applied to education policies and social contexts. The emerging model of digital

99 Dominique Pestre (2013, p. 22).

100 Ben Williamson (2017, p. 122).

101 Ben Williamson (2107, p. 16) considers "how the twin processes of datafication and digitization are emerging from, and simultaneously reinforcing, a particular kind of reimagining the future of education."

102 Pedro Domingos (2015).

103 Ben Williamson (2017, p. 41).

104 Ben Williamson (2017, p. 73).

105 Martin Heidegger (2003a).

106 To Williamson (2017, p. 66), "Education policymaking processes have been transformed by the collection, analysis and use of data in recent years. While the production of educational data is nothing new, the appearance of new technologies for its collection, analysis and use at the beginning of the twenty-first century has catalyzed significant ambitions around data-driven education policy."

education governance derives from "fast-policy" characterized by its performing decisions in a framework of "global deference to models of what works and best practices."[107] It is the governance of numbers,[108] capturing the performativity highlighted by the accountability language, fostering large-scale tests (like PISA) skills, and competencies, as OECD[109] implements, through comparative indicators at the international level. In other words, the educational fast-policy emphasizes the increasing porosity between "transnationalization of policy discourses" and "policymaking locales,"[110] The international organizations produce at the level of normative knowledge criteria to influence the public policies, as declares Pestre.[111]

One significant example of this governance is present in the culture of evaluation. The system promotes both performance indicators linked to the school's success as an institution evaluated by the evidence of data as well as instruments of measurement implemented after a school's inspection. The institutional evaluation of the school[112] is a social game of data collection, analysis, and assessment aimed at improving not only its efficiency, effectiveness, and quality but the well-being of students and school professionals. Another example is the current Agenda-2030 for education, internationally acknowledged by UNESCO, OECD, and OEI, as a landmark for national politics.

In order to produce accountable data, the digital governance is based on performativity and its accountability language, transforming the educational practices in a task of calculation present in these terms and concepts, what Taubman argues to be[113] "performance outcomes, best practices, data driven, metacognitive strategies, learning environments, and evidence-based research." That is to say, in the digital age the accountability defines the thinking style and governance, as well as the "raison d'être" of actors concerned with a specific vocabulary, where happiness, emotions, creativity, affectiveness, and well-fulfillment are words belonging to diary school

107 Ben Williamson (2017, p. 68).

108 Peter Taubman (2009).

109 The Organization for Economic Cooperation and Development (2019a).

110 Ben Williamson (2017, p. 68).

111 Dominique Pestre (2013).

112 See, for exemple, Isabel Fialho, José saragoça, Sónia Gomes, Maria J. Silvestre and Ana P. Correia (2023).

113 Peter Taubman (2009, p. 6).

context. In the affect management style[114] and in digital age, Williamson uses[115] the term 'intimate accountability' to express how data are used "to fabricate a narrative of performance [that] has become a key practice both of individual teachers and of the institutions they occupy."

The intimate accountability does not operate a distinction between effective school and affective school, only reinforces the effective governance linked to new beliefs about schools, teachers, students and communities. The place[116] and the politics of presence,[117] bothered in their first meanings, are an expression of digital subjectivity, creating a new consciousness. The accountability consciousness is more a technical persuasion legitimated by neoliberal practices than a personal involvement in order to legitimize the logic of individual identity.[118] As Williamson acknowledges,[119] teachers – the data collectors – "are engaging with performative processes for purposes of compliance but without any real sense of the value of doing so", for example, the improvement school through school self or external evaluation.[120]

School accountability, intimate accounting, institutions and individuals comparable, student performance, self-evaluation, external evaluation, inspection and parents control, and data collectors became the usual educational calculative practices in elementary and high schools, catalyzed by an affective language transformed as the hidden language of accountability. The rise of intimate accountability is part of what Wells expresses when arguing that[121] "capitalism rewrites human narratives" but now by its personal and affective dimension. The digital subjectivity turns student learning into new spaces of the networked world and marked by its connectivity

114 To Ben Williamson (2013, p. 51), in this style of governance, "schools are responsible for monitoring, regulation, and control of student's emotional selves. The aim of schooling is to produce well-adjusted emotional selves who can take ownership, feel empowered be creative, and experience enjoyment of learning. This requires affective schools rather than effective schools, and the production of passionate, feeling, affective learners."

115 Ben Williamson (2017, p. 82).

116 William F. Pinar (2019).

117 Madeleine R. Grumet (2017).

118 To Shoshana Zuboff (2019, p. 51), "surveillance capitalism is inconceivable outside the digital milieu, but neoliberal ideology and policy also provided the habitat in which surveillance capitalism could flourish," through an ideology of individualism."

119 Ben Williamson (2017, p. 83).

120 In a study about teacher ambivalence towards school evaluation, Agnota Hult and Charlotta Edström (2016, p.305) affirm that "teachers were critical of and reported several negative consequences of accountability and external evaluations, but still generally complied by participating in them."

121 Wyatt Wells (2020, p. vii).

and hybridity of online settings, "increasingly on dispersed, decentralized, and virtual learning taking place fluidly across lifetimes, social sectors, and media, with the Internet itself imagined as a learning institution."[122]

Thus, "networks provide scattered structures of interaction and cooperation whose routes are fluid, dispersed, multiple and often unpredictable," being today "the organizational form of societies in which the exchange of immaterial goods – of information, knowledge, and ideas – has become dominant."[123] Without a center, the eternal aim of transcendental philosophy concerned with the project of enlightened reason, founder of the modernist society, "networks process information simultaneously and often along random pathways. They might predetermine some of the ways in which people can exchange thoughts, images, and sounds, but in making use of networks to transfer immaterial goods we can constantly create and recreate them in the first place."[124]

In new spatialities, temporalities, and individual pathways of learning under data-driven education system stand out "personalization", "evidence-based learning," "school efficiency" and "continuous innovation."[125] What is really new in new learning spaces? The four main notions identified above are present in educational approach such as progressivism,[126] fact-based management[127] and school accountability.[128] Undoubtedly, datafication and digitization transform the pedagogy in a complex learning architecture, developing the technologized learning from data, such as the AltSchool's aim[129] based on learning analytics (from data) and adaptive learning

122 Ben Williamson (2013, p. 33).

123 Lutz Koepnick (2014, p. 71).

124 Lutz Koepnick (2014, p. 71).

125 Ben Williamson (2017, p. 10). José Alberto Lencastre, José Carlos Morgado, Thiago Freires, and Marco Bento (2020) present the flipped classroom as potentially promoting curricular innovation and school culture.

126 John Dewey (1902, p. 36), "The child is already intensely active, and the question of education is the question of taking hold of his activities, of giving them direction"; "To the growth of the chill and studies are subservient; they are instruments valued as they serve the needs of growth. Personality, character, is more than subject-matter. Not knowledge or information, but self-realization, is the goal. To possess all the world of knowledge and lose one's own self is as awful a fate in education as in religion."

127 Dominique Pestre (2013).

128 José A. Pacheco (2018).

129 "AltSchool is an interdisciplinary team of educators, technologists and entrepreneurs building a network of schools that prepare students for our changing world. Each individual school is able to adapt to the needs of students, families and the surrounding community; the larger network

platforms (at scale) in order to preserve the personalized learning through the own predictable progress of student based on data.[130] The process implies a complex change. The future of learning is centred on predictive data because "learning analytics and adaptive learning platforms appear to promise to provide a fine-grained analysis of learner performance, progression and behaviour, largely in line with the psycho-informatic approach to understanding behaviours from big data traces, and also transform the provision of content."[131]

The school-knowledge to be learned in schools is a knowledge aligned to each individual student decided at each moment according analytical learning, running through adaptive leaning platforms. It is a learning of things and its connection to lifelong learning informed by academic knowledge (STEM is always the worth knowledge), social-emotional skills, and critical habits.[132] The structure of cognitive knowledge does not change, persisting the curricular standards to assessment learning, as well as changing pedagogical practices at level of personalization, innovation and data-based learning.

Nevertheless, as Williamson acknowledges,[133] "framed by the discourse of personalized learning, education data science is destabilizing the idea that school knowledge should be contained in standardized curricula, and proposes instead that student's access to knowledge should be determined by automated, algorithmic processes and techniques." The "measure competency through milestones drawn from common core standards"[134] is a traditional curricular practice related to the competency-curriculum approach, so common within schools. Competency-based knowledge flourishes in big data systems, from which emerges the desubjectived, quantifiable,

connects everyone together and enables a far greater impact in our efforts to improve education. Underlying it all is a platform and curriculum that is personalized to each individual child." https://www.crunchbase.com/organization/altschool

130 Ben Williamson (2017, pp. 107-112).

131 Ben Williamson (2017, p. 109).

132 AltSchool. A 21st Century Curricular Approach. https://s3.amazonaws.com/altschool-cdn/info/AltSchool+Curricular+Approach.pdf

133 Ben Williamson (2017, p. 111).

134 AltSchool. A 21st Century Curricular Approach, "At AltSchool, we measure competency through Milestones. Drawn from common core standards and research about how kids learn best, AltSchool Milestones ensure that all students achieve academic mastery, and acquire the social-emotional skills and critical thinking strategies they need to be successful learners, doers, and citizens, in an ever-changing world." https://s3.amazonaws.com/altschool-cdn/info/AltSchool+Curricular+Approach.pdf

and certainty[135] knowledge because it is "*from us,* but not *for us*."[136] Based on the subject and his life experience, increasingly transformed into data, knowledge becomes predictive, personalized, and technical, eschewing identity contexts.

As Taubman argues,[137] "the twin banners of *standards* and *accountability*, has over the last decade profoundly affected all aspects of teaching, schooling and teacher education in the United States, and now threatens public education itself;" In turn Williamson[138] declares his intention "to consider how the twin processes of datafication and digitization are emerging from, and simultaneously reinforcing a particular kind of reimagining of the future of education," at a time of destabilizing standardized curricula, according to the quotes above. Although standards and competencies are at the heart of a data-driven curriculum approach concerned with powerful standardized testing, they are also linked to individual learning tasks. In this sense, datafication and digitation bring a wide diversity of learning opportunities for each student. Oddly enough, digital subjectivity in education and curriculum is a path immersed in individual paths modeled by data systems.

With respect to curricular standards, the Curriculum of Things is much open than the school official curriculum, this one usually standardized and that one deeply vertiginous. The universalizing digital infrastructure technology is one dynamic and open (according to market rules) curriculum in continuous intersection processes with the school curriculum. These "processes of cross-fertilization, pollination, and the catalyzing of ideas to form a webbed network of connections and interconnections,"[139] emphasize an intrinsic relationship between one and the other. It is not a related question but an understandable argument; hence I advance, the Curriculum of Things is the hidden essence of the school curriculum. It has been quite common to refute the informal curriculum as the basis of the school curriculum, although the powerful role of information technologies for knowledge is recognized. A little less straightforward, nowadays, the informal curriculum of the Internet is a large-scale database controlled by one algorithmic framework with a significant effect within schools.

135 Shoshana Zuboff (2019, p. 12): "appropriate surveillance capitalism's emergent capabilities for the sake of total knowledge and its promise of certainty."

136 Shoshana Zuboff (2019, p. 13).

137 Peter Taubman (2009, p. 12).

138 Ben Williamson (2017, p. 16).

139 Ben Williamson (2013, p. 39).

There are two distinct answers to the previous argument. In a significant sense, one concern is experiential knowledge that holds in high regard school knowledge and values the Curriculum of Things the virtual apparatus of the school curriculum. In a digital era formatted by data-based information, the formal and informal learning are technologically enmeshed. Formal and informal learning are technologically enmeshed in a digital era formatted by information based on data. Another concern, in a relatively straightforward sense, is the closed border between the (informal) Curriculum of Things and the (formal) school curriculum, in which the academic knowledge does not consider the experiential knowledge of things. However, the essence of each curriculum and its connections needs to be understood critically.

Discussions inform the contributions of the curricular critical theory about knowledge, subjects, and power. As a mode of questioning, according to Horkheimer,[140] Adorno, Williams, Habermas, Heidegger, and so others, Foucault says,[141] anchored in the high Kantian enterprise and the Frankfurt School,[142] that a critical attitude is "a certain way of thinking, speaking and acting, a certain relationship to what exists, to what one knows, to what one does, a relationship to society, to culture and also a relationship to others." He also speaks about critical attitude – is meditative thinking to Heidegger[143] – as virtue in general which contest the arts of governing, including the art of pedagogy. As instrument of questioning, by which the subject gives himself the right to question truth on its effects of power,[144] critical attitude is the way how the subject question the acceptability of a given system, discourse and social practice through knowledge (in its relationship with technology) and power, that is, a question of inquiring the limits of governing and its modes of subjectivation, more intensely discussed in a time of accelerating digital subjectivity.

140 Concerning Michel Foucault and authors from critical and post-critical theory, see Judith Butler (2001, p. 2). Its main criticism to critical theory authors is the urgency of analyzing "the current grammars of normativity."

141 Michel Foucault (1997, p. 42). See also Liliana Rodrigues and Jesus M. Sousa (2022).

142 Michel Foucault (1997, p, 51) says that "from the Left Hegelian to the Frankfurt School, there has been a complete critique of positivism, objectivism, rationalization of *technè* and technicalization, a whole critique of the relationships between the fundamental project of science and techniques whose objective was to show the connections between science's naïve presumptions, on one hand, and the forms of domination characteristic of contemporary society, on the other."

143 Martin Heidegger (2003a).

144 Michel Foucault (1997).

In this sense, the curriculum as a socially, culturally, ideologically, politically and economically constructed practice, is a formal and informal dispositive of interwoven relationships between knowledge, power, and technology. These relationships are insured by the desubjugation of the subject in the context of the politics of truth.[145] For Foucault,[146] the critical attitude in front of coercive instruments is the way of questioning its structures of rationality and its mechanisms of subjugation.

Contrarily to Butler,[147] who subscribes to a post-critical theory, Foucault, in the text 'What is Critique', not only makes an important contribution to normative theory, but that both his aesthetics and his account of the subject are integrally related to both his ethics and politics," speaking about the subject or the stylization of the self in relation to the rules, expressing what means the desubjugation of the subject. As Butler writes,

> We can understand the salience of this point when we begin to ask: What counts as a person? What counts as a coherent gender? What qualifies as a citizen? Whose world is legitimated as real? Subjectively, we ask: Who can I become in such a world where the meanings and limits of the subject are set out in advance for me? By what norms am I constrained as I begin to ask what I may become? And what happens when I begin to become that for which there is no place within the given regime of truth?[148]

In Foucault's wake, subjugation emerges as an analytical category to study the curriculum, its rationality structures, and its coercive mechanisms through the knowledge-power-technology relationship. The curriculum is one politics of truth subjugating the subject into established norms. It is possible to argue that the Curriculum of Things, by the dynamics of actors and plurality of data that characterize it, is a space of self-transformation while the school curriculum is further the official space of pedagogical governmentality. However, access to information and knowledge in the Curriculum of Things is already a strong normative process, standardized by technological devices and encrypted in codes containing different politics of truth, as they are found in the school curriculum. Both are a process of

145 According to Michel Foucault (1997, p. 47), "critique would essentially insure the desubjugation of the subject in the context of what we could call, in a word, the politics of truth."

146 Michel Foucault (1997).

147 Judith Butler (2001, p. 2).

148 Judith Butler (2001, p. 8).

the subjection of the subject and a process of eventualization,[149] differently formulated as a pedagogical rationale.

The submission of the subject to a technological control through current devices crossing digital technologies needs to be questioned not only by who they are as data information but by a critical questioning of the digital subjectivity immersed in calculative thinking of ongoing commercialism. Commercial governmentality is undoubtedly the landmark both of the Curriculum of Things and the school curriculum. The deployment of big data in curricular practices "is also intended to accelerate the temporalities of educational governance, making the collection of data, its processes of calculation and its consequences into an automated, real-time process operationalized up close from within classroom at distance by expert centres of algorithmic calculation."[150]

The metaverse-based curriculum

Related to the emerging digital technology, the Metaverse, say Zhang et al.,[151] is the connected things by artificial intelligence, not only integrating augmented reality, life record, mirror worlds, and virtual reality but also creating the next generation of the Internet," placing "new demands on education systems to dramatically change how we interact with the world."[152] Further exploring connectivity, datafication, and digitization, "the Metaverse is the next iteration of the internet; a decentralized network of virtual spaces where users can socialize, learn and play,"[153] under a new imagination into education, described as "blended learning, language learning, competence-based education, and inclusive education."[154] According to other authors[155] it is an interoperable network of real-time rendered virtual

149 About this concept, see Michel Foucault (1997) and Slavoj Žižek (2014).

150 Ben Williamson (2017, p. 93).

151 Xinli Zhang, Yuchen Chen, Lailin Hu, and Youmei Wang, 2022, p. 2).

152 Xinli Zhang, Yuchen Chen, Lailin Hu, and Youmei Wang, 2022, p. 2).

153 Daniel Pimentel, Géraldine Fauville, KaiFrazier, Eileen McGivney, Sergio, and Erika Woolsey (2022, p. 2).

154 Kevin V. Portugal (2022, p. 31).

155 Matthew Ball (2022) and Kevin V. Portugal (2022). For Matthew Ball (2022, p. 3), the term metaverse "was coined by author Neal Stephenson in his 1992 novel *Snow Crash*. Stephenson's book provided no specific definition of the Metaverse, but what he described was a persistent virtual world that reached, interacted with, and affected nearly every part of human existence. It was a place for labour and leisure, for self-actualization as well as physical exhaustion, for art alongside commerce." Mainly, Ball (2022, p. 29) gives the following clear, comprehensive, and authoritative definition of

worlds and environments synchronously and persistently experienced by an unlimited number of users.

In a critical review of Ball's book, Heath[156] says that he offers informed speculation on the future of the Metaverse, using cases "such as education, lifestyle businesses such as fitness and dating sites, entertainment, sex and sex work, fashion, and advertising." In this sense, the Metaverse provides a new experience that increases students' interest in expanding their active participation in learning, allowing "learning activities that can extend the freedom and experience of students to infinity. Students will engage in self-directed learning that will allow them to explore their questions based on their unlimited autonomy."[157] From a broad perspective, metaverse-based learning is a collection of technologies supporting the convergence of the virtual and real world, rapid and free access, digital identity, immersive and multisensory experience, and decentralized and editable content.[158]

As a new educational framework, "metaverse-based learning is more than a combination of in-person learning and screen-based remote learning, and it is likely to compensate for the limitations of both,"[159] in a ubiquitous space where "learners can represent themselves in a totally different way. They use their digital identities (i.e., avatars) in customized, realistic, and dynamic forms to attend classes."[160] The curriculum will be decentralized, efficient, measured, and personalized, developing technical and interactive content and exploring "several aspects of online classrooms with realistic senses, personalized teach models, realistic 3D identities, interactive communication, virtual reality technology, and gamified learning."[161] The author[162] adds:

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the metaverse: "is a massively scaled and interoperable network of real-time rendered 3D virtual words and environments which can be experienced synchronously and persistently by an effectively unlimited number of users with an individual sense of presence and with continuity of data, such as identity, history, entitlements, objects, communications, and payments."

156 Donald R. Heath (2022, p. 3).

157 Kevin V. Portugal (2022, p. 31).

158 Xinli Zhang, Yuchen Chen, Lailin Hu, and Youmei Wang, 2022, p. 2).

159 Xinli Zhang, Yuchen Chen, Lailin Hu, and Youmei Wang (2022, p.7).

160 Xinli Zhang, Yuchen Chen, Lailin Hu, and Youmei Wang (2022, p.7).

161 Zhisheng C. Chen (2022, p. 1).

162 Zhisheng C. Chen (2022, p. 6).

> the ideal classroom in the Metaverse will also enhance lecture efficiency and student interest in learning," in which each learner's response "can be turned into a figurative symbol, such as a question mark popping up when a student expresses confusion about the teacher's explanation, making it easy for the teacher to capture timely feedback.

Beyond the human and ethical problems that the new education poses, relying on artificial intelligence and data mining, as well as parallel or virtual or immersive worlds, "the content production cycle on the Metaverse platform is very slow, so it is best to have a large library of Metaverse content when the platform goes live."[163] Being the vision of the future mediated by the market defined by the sociotechnical imaginaries of virtual reality,[164] education and society tend to be more controlled by economic capital and its calculative knowledge[165] in an era of immersive reality. Education runs increasingly into measurable features and models of competence-based education. Herein, it is crucial to understand what transformation in education takes place, what technologies are used for learning, what challenges are troubled with the role of artificial intelligence in education, and what ethical concerns bring the use of self-learning algorithms[166] namely through individual interests embedded in each learner's digital footprint. Undoubtedly, "Edu-Metaverse has significant advantages in that it is suitable for use in immersive learning, saving education costs, and increasing classroom efficiency and students' interest in learning"[167] but can education as a human experience not be subjugated to old new forms of control, which Foucault[168] has analyzed through the concept of the dispositive?

Following McLuhan's essay[169] *Classroom without Walls* written in a changed time fostered by technologies of communication in the mid twenty century, technology is always a tremendous challenge for education and schools, "Before the printing press, the young learned by listening, watching, doing. So, until recently, our own rural children learned the language and

163 Zhisheng C. Chen (2022, p. 10).

164 Chloe Preece, Laryssa Whittaker, and Stephane Janes (2020).

165 Louis Althusser (1967).

166 Pericles A. Rospigliosi (2022).

167 Zhisheng C. Chen (2022, p. 11).

168 Michel Foucault (2008).

169 Marshall McLuhan (1957).

skills of their elders."[170] At the same time, "the sheer quantity of information conveyed by press-magazines-film-TV-radio far exceeds the quantity of information conveyed by school instruction and texts"[171] as today the digital technologies are doing, and much more with metaverse technologies. As in the past, "today we're beginning to realize that the new media aren't just mechanical gimmicks for creating worlds of illusion, but new languages with new and unique powers of expression."[172]

In its schooling scenarios, the OECD,[173] in confronting virtual and face-to-face teaching and learning modalities, proposes that more thought should be given to learning spaces and times, especially "about the role of face-to-face interaction and physical presence." Nevertheless, in the OECD's *Learn-as-you-go* scenario, education takes place everywhere, anytime, based on artificial intelligence, virtual and augmented reality and the Internet of Things. Furthermore, as OECD[174] says: "Vast connectivity powered by an extensive and rich digital infrastructure and abundance of data has completely changed our perception of education and learning ... marking the decline of established curriculum structures and dismantling of the school system." In turn, in the scenario *Schools as learning hubs*, "schools remain, but diversity and experimentation have become the norm. Opening the 'school walls' connects schools to their communities, favouring everchanging forms of learning, civic engagement, and social innovation."[175]

The metaverse-based curriculum is challenging to organize education differently as a public space and schooling as a human action, only made possible by curricular conversation. The power of immersive technologies will thus not correspond to the uprooting of students from a school of social interest but rather to an outsourced school dominated by market logic, where the value in use will be in educational technology resources.

170 Marshall McLuhan (1957, p. 1).

171 Marshall McLuhan (1957, p. 1).

172 Marshall McLuhan (1957, p. 2).

173 The Organization for Economic Cooperation and Development (2020a, p. 68).

174 The Organization for Economic Cooperation and Development (2020b, p. 52).

175 The Organization for Economic Cooperation and Development (2020b, p. 7).

The subject and human autonomy

Following Koopman[176] and adding to our preexisting subjectivity (such as citizenship or individuality), the information technologies usher in a new mode of subjectivation. The digital subjectivation introduces a mode of rationality or a style of reasoning based on data episteme, because the subject is swaddled in data. Realistically and thinking in Foucault's biopolitical subjectivity,[177] "we find ourselves enrolled in a thousand databases," in which identifiers, numbers and tags survey us in an extensive countable process of control: "We are therefore our data as much as we are anything else. We are many things, of course. We are our data too."[178]

As informational persons,[179] still according to Koopman, "we are inscribed, processed, and reproduced as subjects of data," breathing interactively information technologies and its politics of control, which he calls *infopolitics* or *infopower*, because "information is an exercise of power through the work of its varied and flexible *formats*."[180] As informational or digital persons, we continuously update information, bringing politics into view in its flexible and quotidian formatting.

In the study of human-computer interaction, the understanding of the human autonomy is instead a technological dimension than a cultural dimension, namely through the Internet of Things whose goal is clear for Koopman:[181] "to install into every tool the capacity to continuously and autonomously collect and transmit data within privately controlled systems."[182] So, "the Internet of Things provides the perfect cover for converting all streams of human life into raw for capitalism, in the process capitalizing

176 Colin Koopman (2019).

177 Michel Foucault (2008, pp. 317, 327) studies the liberalism (and the neoliberalism in its German, French and American forms) as the general framework of biopolitics: "The theme was to have been "biopolitics," by which I meant the attempt, starting from the eighteenth century, to rationalize the problems posed to governmental practice by phenomena characteristic of a set of living beings forming a population: health, hygiene, birthrate, life expectancy, race … We know the increasing importance of these problems since the nineteenth century, and the political and economic issues they have raised up to the present." "The object of the lectures is to show how this liberalism constitutes the condition of intelligibility of biopolitics."

178 Colin Koopman (2019, p. ix).

179 Colin Koopman (2019) distinguishes three identifies for a subject: informational identity, algorithmic identity, and racial identity.

180 Colin Koopman (2019, p. 12).

181 Colin Koopman (2019, p. 136).

182 Colin Koopman (2019, p. 4).

everything and everyone."[183] The Internet connections machine-to-machine are already dominant, lowering to a secondary level the human subject that is transformed into an algorithmic' s cog or converted to numbers.[184] As Zuboff says,[185] *instrumentarianism* is the new power that knows and shapes human behavior, working through the "automated medium of an increasingly ubiquitous computational architecture of smart networked devices, things, and spaces."[186]

This new power, what Lipovetsky[187] calls *the prescriptive power of surveillance data*, devalues not only the autonomy of the subject but strengths de probabilistic learning structured around algorithmic governance and ideology of prediction, defined by Donnarumma as "a belief that anything can be predicted and, by extension, controlled."[188] Based on big data, deep learning, artificial intelligence, and probabilistic learning, the power of prediction reconfigures human autonomy towards less standardization and more personalized choice, where the curriculum is statistically modeled. As discussed in the next Chapter, critical attitude is a matter of questioning the subject and human autonomy. To clear, we look at questioning subjectivity.

183 Colin Koopman (2019, p. 136).

184 William F. Pinar (2011a, p. 9), "Converting subjects to numbers has proved pivotal not only to the sophistication of science but also to its application to practical life in technology."

185 Shoshana Zuboff (2019, p. 19).

186 Shoshana Zuboff (2019, pp. 19, 334), the new power (*instrumentarianism)* is a market project that converges with the digital to achieve its own unique brand of social domination."

187 Gilles Lipovetsky (20221) argues that algorithmic governance reduces self-governance since the consumer's choice is no longer totally autonomous, but his satisfaction increases, with the offer being more responsive to his particular preferences.

188 Marco Donnarumma (2022, p. 3).

Chapter 3 – The digital subject in the Curriculum

Verticality and horizontality are hardly self-enclosed structures, then: they are turned outside themselves, attuned to history, society, and subjectivity.[1]

1 William F. Pinar (2007, p. xx).

Approaches to subjectivity

There are many examples of questions that are judged as a slippery matter. One of those is subjectivity. According to Foucault's axes of ourselves ontology, three domains are possible:

> First, an historical ontology of ourselves in relation to truth through which we constitute ourselves as subjects of knowledge; second, an historical ontology of ourselves in relation to a field of power through which we constitute ourselves as subjects acting on others; third, an historical ontology in relation to ethics through which we constitute ourselves as moral agents.[2]

These three genealogical axes of truth (knowledge), power (governmentality), and subjectivity (the subject) make up the late archeological work of Foucault and his influence from Nietzsche, as Mahon and Gore acknowledge.[3] Foucault's ideas about knowledge are inseparable of subject and power, deeply analyzed through discursive narratives. The subject is then someone who searches his references within himself, albeit Foucault's critical analysis of pedagogy reveals discipline, punishment, and surveillance through others in hierarchical and standardized subjectivation modes.[4]

In the curriculum studies field, knowledge becomes a crucial question, following Spencer's question:[5] What knowledge is of most worth? The nineteenth century discussed it between sciences and languages, the twentycentury as public and private spheres, and the early twenty-first century as technological data. The place of the subject in knowledge frames distinct approaches, namely from the Kantian discussion on the transcendental subject constituted as a condition of knowledge itself.

His concept of self-consciousness of the subject includes the rational subject of Descartes, the consciousness of Sartre and Heidegger, living in the intersubjectivity of Habermas, and eschewing both the impulsive subject of

2 Michel Foucault (1983, cited by Micahel Mahon, 1992, p. 1).

3 Michael Mahon (1992) and Jennifer M. Gore (1993).

4 Michel Foucault (1995).

5 Herbert Spencer (1859).

Nietzsche and fostering the evanescent subject of Hegel.[6] The subject as a practice of himself, looking at the care of oneself, and searching the truth by the critical analysis of knowledge and power is the outstanding contribution of Foucault, to whom the subjectivity is a mode of subjectivation or subjection Butler explores in her thought. In the interdisciplinary field of curriculum studies, the discussion on the subject embraces its private and public spheres, i.e., agency and structure.

There is no doubt for structuralism: the subject is the center of functional activity, as Piaget declares[7], to whom the subject within the structure (with the subjective component, the orientation to object, and the objective component, the representation of the subject) is a reciprocal relationship with one another. One-on-others, it is the question to be accepted by the subordinated subject. The last words in Piaget's book about structuralism are certainly a manifesto against the emergent thought of Foucault – specifically the book *Les mots et les choses. Une archéologie des sciences humaines*[8], published in 1996 – accused of doing structuralism without structures and of not acknowledging the structures under construction, according to the structural structures, that is, the empirical orders established by the fundamental codes of a culture and its critical interpretation,[9] free "itself sufficiently to discover that these orders are perhaps not the only possible ones or the best ones."[10]

If for Foucault[11] to know is to interpret, the subject is "the locus of an empirico-transcendental doublet" that "cannot posit himself in the immediate and

6 According to Jürgen Habermas' s thought (see Hauke Brunkhorst, Regina Kreide, and Cristina Lafont, 2018), Descartes' *Cogito ergo sum* is Kant's absolute self-consciousness, Hegel is the philosopher of the discovery of subjectivity, that is, freedom and reflection, individuality, autonomy, and criticism.

7 Jean Piaget (1970).

8 It was published in the English language in 1970 with the title "The order of things. An archaeology of the human sciences". The edition used in this text is related to Routledge's edition (1989) and e-book (2005).

9 Michel Foucault (1989, p. XXII), "The fundamental codes of a culture – those governing its language, its schemas of perception, its exchanges, its techniques, its values, the hierarchy of its practices – establish for every man, from the very first, the empirical orders with which he will be dealing and within which he will be at home. At the other extremity of thought, there are the scientific theories or the philosophical interpretations which explain why order exists in general, what universal law it obeys, what principle can account for it, and why this particular order has been established and not some other."

10 Michel Foucault (1989, p. XXIII), "Thus, in every culture, between the use of what one might call the ordering codes and reflections upon order itself, there is the pure experience of order and of its modes of being."

11 Michel Foucault (1989, p. 351).

sovereign transparency of a *cogito*." The subject is then "a mode of being which accommodates that dimension – always open, never finally delimited, yet constantly traversed – which extends from a part of himself not reflected in a *cogito* to the act of thought by which he apprehends that part."[12]

The subject becomes value in the structural determination, being "posited in the sandy stretches of non-thought"[13] because he is impregnated with a potential discourse."[14] Whether *I think* does not lead to the evident truth of the *I am*, as Foucault says, the *cogito* does not lead to an affirmation of being, but it does lead to a whole series of questions concerned with being."[15] Thus Foucault's argument opens a conceptual fissure in the Cartesian model of the subject, the birth of subjectivity to Heidegger.[16] The subject's identity emerges in what the self is in the sense of an individual's uniqueness. The *I* is the locus of the subjectivity and the *sum*, Heidegger says[17] "is not a consequence of the thinking, but vice versa"; it is "the ground of thinking" but "it is not the only fundamental axiom."[18]

Instead, the thinking is individualized because "the subjectivity of the subject is determined by the "I-ness" *[Ichheit]* of the "I think."[19] Hence, the particular belongs to the subject's experience, doing part of the everyday experience. Following Heidegger's ideas, "as individual humans, we are in individual subjects and egos, and what we represent and mean are only subjective pictures which we carry around."[20]

Well-known by his legacy to critical thought, Horkheimer[21] interprets subjectivity by the subjective reason concept, which refers to an "attitude of consciousness that adjusts itself without reservation to the alienation between subject and object, the social process of reification, out of fear that

12 Michel Foucault (1989, p. 351).

13 Michel Foucault (1989, p. 352).

14 Michel Foucault (1989, p. 352).

15 Michel Foucault (1989, p. 354).

16 Martin Heidegger (1967).

17 Martin Heidegger (1977, p. 302).

18 Martin Heidegger (1977, p. 304).

19 Martin Heidegger (1977, p. 303).

20 Martin Heidegger (2003b, p. 12).

21 Max Horkheimer (2004, pp. 117-118): "The two concepts of reason [objective and subjective] do not represent two separate and independent ways of the mind, although their opposition expresses a real antinomy."

it may otherwise fall into irresponsibility, arbitrariness, and become a mere game of ideas." He criticizes the appropriation of particular interests by pragmatism, triumphing everywhere, advocating a change in the critical attitude: "the critique must necessarily be carried on with an emphasis on objective reason rather than on the remnants of subjectivistic philosophy, whose genuine traditions, in the light of advanced subjectivization, now in themselves appear as objectivistic and romantic."[22] What kind of subjectivity persists in an educational institution through the curriculum?

Any response reflects the subject from the universal as a theoretical framework. As a knowledge project from the curriculum studies field's canonic question – What knowledge is of most worth? – curriculum in its different dimensions (sociopolitical, institutional, and pedagogical[23]) includes the subject in its problem of singularity and universality. Phenomenologically[24] and from a post-structuralism approach, the subject is the locus of knowledge or self-knowledge – the subject of Foucault, Deleuze, and Butler in their conceptual approach. Foucault's care of oneself[25] reveals the utter subjectivity and its relationship with truth because knowledge is a subjective experience, asking: "how can there be truth of the subject, even though there can be truth only for a subject?"[26] His answer is clear:

> subjectivity is not conceived of on the basis of a prior and universal theory of the subject, it is not related to an original and founding experience, it is not related to an anthropology that has universal value. Subjectivity is conceived as that which is constituted and transformed in its relationship to its own truth. No theory of the subject independent of the relationship to the truth.[27]

According to this analysis, the subject looks at himself as a singular being without previous or predetermined references. Is not the school curriculum an external truth in terms of knowledge for the subject?

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22 Max Horkheimer (2004, p. 118).

23 John I. Goodlad and Zhixin Su (1992).

24 To Edmund Husserl (1995, p. 3), "The method of the critique of cognition is the phenomenological method, phenomenology as the general doctrine of essences, within which the science of the essence of cognition finds its place."

25 Michel Foucault (2010, 2011).

26 Michel Foucault (2017, p. 10).

27 Michel Foucault (2017, p. 12).

Foucault's examples of the relationship between subjectivity and truth belong to the subjective experience like sexuality. In the realm of curriculum, the formal knowledge that makes up the school curriculum is presented to the subject as a true knowledge or as one discourse of truth to be accepted, fading away the subjectivity covered by the "universal knowledge that is a great social, moral and cognitive authority;"[28] it is the powerful knowledge of disciplines as described by Young, namely the 'specialized' ("in the boundaries between disciplines and subjects which define their focus and objects of study"), and 'differentiate' ("from the experiences that pupils bring to school or older learners bring to college or university") powerful knowledge[29]. Its form of specialization follows Schwab's syntactical and substantive structures of the disciplines,[30] conceptually changed by Pinar[31] through the theoretical proposal verticality and horizontality of the disciplinary structure of curriculum studies. As intertwined disciplinary structures, horizontality and verticality interconnect the past and the present in the sense of making a conversation on how curriculum complicates our understanding, which may stem from the canon project as the mapping of key texts in the intellectual history of curriculum studies.[32]

By verticality, he means "the intellectual history of the discipline, and by horizontality "the analysis of present circumstances."[33] This conceptual approach is similarly interpreted by Bernstein,[34] wherein the vertical discourse "takes the form of a coherent, explicit, and systematically principled structure, hierarchically organized" in the sciences, social sciences and humanities, and the "horizontal discourse entails a set of strategies which are local, segmentally organised, context-specific and dependent, for maximising encounters with persons and habitats." Despite Pinar's apparent conceptual closeness to Young's and Bernstein's perspectives, his analysis differs profoundly from them by recognizing subjectivity as something that

28 Dominique Pestre (2013, p. 14).

29 Michael Young (2013, p. 108). Furthermore, he adds: "These characteristics of 'powerful knowledge' are not restricted to what in England we call STEM (science, technology, engineering, and mathematics) disciplines and subjects, although STEM disciplines and subjects express the features of powerful knowledge least ambiguously (Young and Muller 2013). Although powerful knowledge is not general knowledge, powerful knowledge has generalizing capacities."

30 Joseph Schwab (1962, 1978).

31 William F. Pinar (2007).

32 William F. Pinar (2007).

33 William F. Pinar (2007, pp. xi, xiv).

34 Basil Bernstein (1999, p. 198).

values the differences of the subject. In his approach, it is notable a fresh perspective about the subject. It is a subject surfing the present circumstances[35] – the everyday local knowledge or common-sense knowledge;[36] the everyday knowledge[37] – and critically knowing the intellectual history of knowledge[38] – the conceptual knowledge[39] or the powerful knowledge.[40] The personal does not fade in front of the supremacy of the social that he considers the "powerful knowledge cognitively superior to that needed for daily life. It transcends and liberates children from their daily experience."[41]

The notion of powerful knowledge is based on Kantian's transcendental subject. The objective knowledge is external to the subject, being Enlightenment "man's way out from his self-incurred tutelage (Minorité)," according to Kant, quoted by Foucault.[42] Self-knowledge is part of the subject's singularity, whose autonomy brings him into relation with the other, supposedly through education. The majority is the space of autonomy and emancipation of the subject through transcendent way to himself education. As Bernstein says,[43] education creates "symbolic, the other practical mastery as a constructing" – that Habermas[44] calls the life world of the individual and the other as the source of instrumental rationality, the expert systems to Giddens[45] – leading "to a disembedding of individuals from their local experiential world, which is constructed by a different form."[46]

The education of the human experience of self into others has a broad background in the theoretical discussion about subject and subjectivity. The presence – or the desire – of the other is persistently discussed philosophically, religiously, sociologically, and psychanalytically. Following Foucault's

35 William F. Pinar (2007).

36 Basil Bernstein (1999).

37 Michael Young (2013).

38 William F. Pinar (2007).

39 Basil Bernstein (1999).

40 Michael Young (2013).

41 Michael Young (2013, p. 118).

42 Michel Foucault (2010, p. 26).

43 Basil Bernstein (1999, p. 158).

44 Jürgen Habermas (1998a).

45 Anthony Giddens (1990a, 1990b).

46 Basil Bernstein (1999, p. 158).

thought, Deleuze[47] argues that there is no return to the subject but only to the subjectivation: Foucault does not use the word *subject* as though he is talking about a person or a form of identity, but talks about subjectification as a process, and self as a relation (a relation to oneself). He thinks subjectification has little to do with any subject, as a process by which alternative possibilities of life are invented, such as our ways of constituting ourselves as subjects.

The subject of Foucault and Deleuze is analyzed through the third person: "One speaks, one sees, one dies. There are still subjects, of course – but they're specks dancing in the dust of the visible and permutations in an anonymous babble. The subject's always something derivative. It comes into being and vanishes in the fabric of what one says, what one sees."[48] Deleuze acknowledges the thingness of the subjectification in Foucault's approach, saying that "processes of subjectification[49] have nothing to do with private lives but characterize the way individuals and communities are constituted as subjects on the margins of established forms of knowledge and instituted powers, even if they thereby pave the way for new kinds of knowledge and power."[50]

The subject does not live in the space of a universal and transcendent image immersed in the structural reality but the diagonal space,[51] in which he acts through discursive formations and multiplicity languages. So, "the subject is the product of phrases or dialectic and has the character of a first person with whom discourse begins, while the statement is an anonymous function which leaves a trace of subject only in the third person, as a derived function."[52] The post-structural approach brings the subject embedded in spaces, foldings, and diagrams, immersed in "a relation to oneself that consciously derives from one's relation with others"[53] and relocating the personal to the center of the curriculum.

47 Gilles Deleuze (1995, p. 92).

48 Gilles Deleuze (1995, p. 108).

49 For Alain Touraine (2007, p. 3), "Subjectification – that is, the creation of the subject – can never be confused with the subjection of individuals and social categories."

50 Gilles Deleuze (1995, p. 151), that is, "Subjectification thus appears as a middle term between knowledge and power, a perpetual dislocation, a sort of fold, a folding or unfolding."

51 Gilles Deleuze (2006).

52 Gilles Deleuze (2006, p. 15).

53 Gilles Deleuze (2006, p. 15).

The post-reconceptualization curriculum studies leads the field to new theoretical perspectives that, "rather than being a break or a shift in the terms for curriculum studies scholarship, seems to foreground new sensibilities within the field: flux and change, hybrid spaces, reading differently, divergent perspectives, different contexts, status question; and understudied histories."[54] To acknowledge the personal is a way of relocating the curriculum on subjective experience, namely when the political approach to the curriculum has enormously contributed to the marginalization of the understanding of the curriculum as a subjective sphere. The implication to the curriculum is clear, as Pinar[55] writes: "The labor of curriculum is not the "facilitation" or "implementation" of others' curriculum content, but the creation of ours; however, blocked that creation may be from official endorsement in the schools."

The inner experience becomes a curricular issue, and the autobiographical approach is a method to emphasize it, transforming the personal and subjective (the individuality, the singularity) into a curriculum subject. This radically subjective notion of curriculum embraces the personal "constituted within a web of relations that includes relations of time (how the past works on the present) and relations with others, knowledge, and authority. The hide and seek of the personal is played out on this terrain, but its movements may exceed the force of the ideological and the institutional."[56] It is just the Foucaultian approach of knowledge, power, and subjectivity occurring in the curriculum's space as lived experience. What concerns subjectivity mainly been explored by Pinar in his texts, as acknowledged by Moreira.[57]

According to Pinar, subjectivity informs educational acts. To the meaning of *I*, there is no simple answer. It requires "efforts to understand the curriculum racially, politically, theologically, autobiographically, and historically in terms of gender, popular culture, phenomenology, postmodernism, poststructuralism, psychoanalysis, and the arts, all situated locally and in the

54 Eric Malewski (2010b, p. 536).

55 William F. Pinar (2002, p. 28).

56 Alice Pitt (2003, p. 89).

57 To António F. Moreira (2009, p. 89), Pinar associated "the curriculum with the term *currere* by indicating the need of understanding the curriculum as the internal experience of the educational journey. He insisted that he would research the individual nature of the public experience, albeit the artefacts, the actors, the running, and the wanderings of the educational journey. In other words, he started a subjective educational experience in search of the sight of an original and unique revelation that would open up an inquisitive and appreciative view of worlds until then unknown."

global village."[58] In this interdisciplinary framework, the self lives into his temporality subjectivity or space-time, which assumes the present embedded in the past and future. The significance of subjectivity is a constant in Pinar's texts, from the development of heightened consciousness to self-reflexivity. The self and others are two remarkable references, and for him, the notion in-between personal and social is a bridge to understand the curriculum.

Here is Heidegger's thought, especially in his book *Being and Time*. Everything is an existential experience in the realm of temporality in which the subject ("Dasein, Being-there") is a subjective way of existing (selfhood) as a "Being-in-the-world." To be itself is the essence of the subject, lying "in its to be" and showing itself "as a structure of Being."[59] Phenomenologically, "the showing-itself-in-itself signifies a distinctive way in which something can be encountered" because the logos "is a letting-something-be-seen, it can therefore be true or false."[60] This distinguished analysis allows one to carefully look at the "Being-in-the-world" as "Being-with and Being-one's-Self" and "Being-in as such" from the axiom that "the person is not a thing, not a substance, not an object."[61]

Similarly to structure, the Being belongs to itself worldhood, essentially related to "being-one's-self" and 'the they" or with the relationship to itself "to be disclosed to the Other as Other"[62] in "a disclosive submission to the world, out of which we can encounter something that matters to us."[63] The Heidegger's notions of "Being-there" and "Being-in-the-world" are "states of mind and understanding"[64] as an emphasis on subjectivity, namely the language subjectivity conceived existentially based on Kant's distinction "between the in me and the outside of me, and also the connection between these."[65]

58 William F. Pinar (2005, p. 4).

59 Martin Heidegger (2001, p. 56).

60 Martin Heidegger (2001, p. 33).

61 Martin Heidegger (2001, p. 73).

62 Martin Heidegger (2001, p. 62).

63 Martin Heidegger (2001, p. 177).

64 Martin Heidegger (2001, p. 203).

65 Martin Heidegger (2001, p. 248).

Heidegger's references to education are not widespread. If the subject (Dasein) is a "being-with-one-other,"[66] education and its curriculum is a "being-with,"[67] enabling the understanding:

> the existential kind of being which first makes knowledge and cognition possible. Knowing oneself is grounded in primordially understanding being-with. It operates initially in accordance with the nearest kind of being of being-together-in-the-world in the understanding knowledge of what Dasein circumspectly finds and takes care of with the others.[68]

The ground of education will undoubtedly be self-knowledge, expressing both being-in-the-world-itself and knowledge about the world. The curriculum is then a way of possibilities of knowledge towards reflexivity.[69] For Heidegger,[70] "questioning becomes itself the highest form of knowing" because the "knowing battle" "strengthen and thus gain the simplicity and breadth necessary to knowledge about the essence of science."[71] In the curriculum as pedagogical experience, is the reflective knowledge (present in art and different of axiomatic knowledge) a mere appendix or can it grow slowly?

The question "is decided whether art can be an origin and then must be a forward spring, or whether it is to remain a mere appendix and then can only be carried along as a routine cultural phenomenon."[72] In order to respond effectively to the challenges and problems, the knowledge school builds its foundation knowledgeably based on scientific principles – "knowledge about the structure of the logos"[73] – and not in mere opinion, as Heidegger suggests to the scholarly knowledge. Nowadays, in an unreal, imprecise,

66 Martin Heidegger (2001, p. 159).

67 Martin Heidegger (2001, p. 64), "as Being-with, one belongs to the Others oneself and enhances their power."

68 Martin Heidegger (2001, p. 162).

69 Heidegger (2003, p. 8), "Knowledge does not serve the professions, quite the reverse: the professions effect and administer that highest and essential knowledge of the people concerning its entire being *(Dasein)*."

70 Martin Heidegger (2003c, p. 6).

71 Martin Heidegger (2003c, p. 10).

72 Martin Heidegger (1996d, p. 203).

73 Martin Heidegger (2003d, p. 252).

and untruthful way, knowledge is distorted in truth, making it believe that science has nothing to say about the world and its problems.

Žižek's point here in a time of the pandemic is assertive: "We are now forced to admit that modern science, despite all its hidden biases, is the predominant form of trans-cultural universality. The epidemic provides a welcome opportunity for science to assert itself in this role."[74] Science confronts a public crisis of trust, Oreskes says[75], because of its denial rooted in an ideological fixation on "free" markets. One can say that knowledge is denied in the society of post-truth, from which subjectivity distances itself parallelly and dangerously from scientific data.

Considering her disagreement over Kant, Butler writes that "a new form of the subject[76] emerges, which is distinctly Kantian"[77] in the process of subjection, signifying "the process of becoming subordinated by power as well as the process of becoming a subject", and consisting "precisely in this fundamental dependency on a discourse we never chose but that, paradoxically, initiates and sustains our agency."[78] Subjectivation[79] is always one psychic submission, acting as a constitution of the subject's self-identity by one ambivalent process: "The *I* emerges upon the condition that it deny its formation in dependency, the conditions of its own possibility"[80] as well as "the agency of the subject appears to be an effect of its subordination."[81]

74 Slavoj Žižek (2020, p.125).

75 Naomi Oreskes (2019).

76 Sara Salih (2002, p. 2), "Butler's *subject* is not an individual, but a linguistic structure in formation. *Subjecthood* is not a given, and since the subject is always involved in the endless process of becoming, it is possible to reassume or repeat subjecthood in different ways."

77 Judith Butler (2001, p. 48).

78 Judith Butler (2001, p. 2).

79 Butler (1977, p. 11), "No individual becomes a subject without first becoming subjected or undergoing "subjectivation" (a translation of the French *assujetissement).*"

80 Judith Butler (1997, pp. 9-10).

81 Judith Butler (1997, p. 12).

Stressing the power dimension essentially on becoming subject[82] wherein "subjectivity necessarily rests upon the negation of the other by the self"[83] – "desire is always desire for something Other, which turns out to be a desire for the subject itself"; "Desire, in other words, is tantamount to the consumption of the Other."[84] On the one hand, education and curriculum become symbolic structures both of normalization and subjection of the subject, immersing it in knowledge from other than itself, and possibilities of resignification of the subjectivity, on the other hand. This subjective re-signification from the critical attitude may be applicable to a wide variety of situations, that is, "critique is always a critique *of* some instituted practice, discourse, episteme, institution."[85] As a reflective evaluation, critique is a way of reading current grammars of normativity that foreclose the possibility of thinking otherwise, that is, "a movement by which the subject gives himself the right to question truth on its effects of power and question power on its discourses of truth."[86]

Butler has been a recursive inspiration for new educational approaches, including those related to psychic life and naturalized knowledge of gender, a changeable reality[87] from education and its curriculum analyzed from a désidentification pedagogical process in which subjugation and autonomy are intrinsically the faces of the subject.[88] Despite the symbolic *dispositif*, the pedagogical désidentification recognizes the subject's autonomy to interpret the dominant practices and subjective the ideological interpellation in which it is immersed.

The curriculum is thus simultaneously a cultural code of identification and désidentification. "As an unabashed philosopher of subjectivity,"[89] it adds a radical theory of subjectivity based on Kantian, Hegelian, and Lacanian perspectives. First, it is not only a response "to a theoretical impasse in

82 Judith Butler (1977, p. 3019), "That *becoming* is no simple or continuous affair, but an uneasy practice of repetition and its risks, compelled yet incomplete, wavering on the horizon of social being." Salih (2002, p. 10) says, "Here Butler is extending de Beauvoir's famous insight that [*o*]*ne is not born, but rather becomes, a woman* (1949: 281) to suggest that *woman* is something we *do* rather than something we *are*."

83 Sara Salih (2002, p. 20).

84 Sara Salih (2002, p. 20).

85 Judith Butler (1997, p. 1).

86 Judith Butler (1977, p. 13), quoting Michel Foucault (1997).

87 Judith Butler (2002).

88 See Slavoj Žižek (1999, p. 178) for an analysis of Butler's theoretical contribution.

89 Slavoj Žižek (2020, p. 117).

deconstructionist and post-structuralist accounts of subjectivity," but "also a reaction to the political limitations of such approaches that seemed unable to conceptualize effective forms of political resistance beyond the textual or the performative."[90] Second, as "subjectivity and universalism are thus not only not exclusive, but two sides of the same coin,"[91] the subject is absolute negativity, the nucleus of the subject in its concrete universality, embedded in a symbolic order, the Lacan's Big Other, in its abstract universality. Finally, it is a structural post-structural approach that intertwines the political subject in the web of universality and fosters emancipatory politics.[92]

Žižek' s idea of the subject brings back the Cartesian subject, the Kantian universality, and the Hegelian subject through a phenomenological language, especially that of Heidegger and Badiou, as well as through the psychic language of Lacan. By his words, "Cartesian subjectivity continues to be acknowledged by all academic powers as a powerful and still active intellectual tradition,"[93] reasserting the Cartesian subject rejected by deconstructionists or by post-modern thought,[94] that of multiples voices, "linked to the reduction of the subject to a process of *subjectivization*,"[95] "drifting, more or less freely, among an inconsistent multitude of Selves,"[96] in the realm of "a subject who is extremely narcissistic."[97]

Such a radicalized position is supported by the striking ideas of Kant and Hegel about the subject and especially the question of the relationship between subjectivity[98] and universality. Both Kant's transcendental subject

90 Derek Hook and Calum Neil (2010, p. 1).

91 Slavoj Žižek (1999, p. 227).

92 Alain Touraine (2007, p. 104), "We only fully become subjects when we reach our ideal of recognizing ourselves -and having ourselves recognized - as individuals, as individuated beings, defending and constructing our singularity, and, through our acts of resistance, conferring meaning on our existence."

93 Slavoj Žižek (1999, p.1).

94 Slavoj Žižek (2012, p. 367), "Postmodern relativism is precisely the thought of the irreducible multitude of worlds, each of them sustained by a specific language game so that each world "is" the narrative its members tell themselves about themselves, with no shared terrain, no common language; and the problem of truth is how to establish something that-to use the tern popular in modal logic-remains the same in all possible worlds."

95 Slavoj Žižek (1999, p. 232).

96 Slavoj Žižek (1999, p. 330).

97 Slavoj Žižek (1999, p. 368).

98 Slavoj Žižek (2012, p. 401), "In Kant, the subject actively synthesizes (confers unity on) the content (the sensuous multiplicity) by which it is passively affected. For Hegel, on the contrary, at the level of Absolute Knowing, the cognizing subject is thoroughly passivized: it no longer intervenes in the

and Hegel's absolute negativity (the immanent transcendence of oneself to another, the nature of self-consciousness) intersect Heidegger's finite subject (Being-in-the-world) and Lacan's singular subject evanescent in the symbolic order of the Big Other. This the focal point of the subjectivity to Žižek. The finitude of the subject divides Hegelianists and Heideggeranists or idealists and phenomenologists. His conceptual framework distinctly distinguishes the primacy of subjectivity, but some towards an absolute subject (Spirit) and others towards itself in the world-with. At the same time, universality becomes a crucial concept on Žižek' s thinking following Kantian's and Hegelian concepts.

The subject emerges from between concrete and abstract universality through the event. The concrete universality includes subjectivity, being a primary identification (family, local community. On the other hand, the abstract universality excludes "the contingency of particular,"[99] being a secondary identification (nation, profession, school). Thus, the spontaneous universality is directly opposed to the artificial and mediate universality, although the universal secondary identification (abstract) becomes concrete when it reintegrates primary identification (and its particular forms), transformed into the modes of appearance of the secondary identification."[100] Universality is historically determined: "The crucial feature to bear in mind here is how concrete universality is not true concrete universality without including in itself the subjective position of its reader-interpreter as the particular and contingent point from which the universality is perceived."[101]

Another core concept in Žižek is that of symbolic order,[102] defined by Lacan as "neither objective nor subjective, but precisely as the order of

object, but merely registers the immanent movement of the object's self-differentiation/determination (or, to use a more contemporary term, the object's autopoietic self-organization)."

99 Slavoj Žižek (2012, p. 359).

100 Slavoj Žižek (1999, p, 90).

101 Slavoj Žižek (2012, p. 359).

102 Slavoj Žižek, 2012, p. 646), "In the opposition between the symbolic order and reality, the Real is on the side of the symbolic– it is the part of reality which clings to the symbolic (in the guise of its inconsistency/gap/impossibility). The Real is the point at which the external opposition between the symbolic order and reality is immanent to the symbolic itself, mutilating it from within: it is the non-All of the symbolic."

intersubjectivity,"[103] and interpreted by Hegel as logos.[104] It is the Big Other in which

> the subject does not speak; he is *spoken* by the symbolic structure. In short, this *Big Other* is the name for the social substance, for all that on account of which the subject never fully controls the effects of his acts, so that their final outcome is always other than what he aimed at or anticipated."[105]

It is also the dimension of the intersubjectivity that "can never be dissolved into the direct interaction of individuals,"[106] nor into the social structures.[107]

As an intersubjective symbolic mediation, the symbolic order is a hegemonic universal, according to Laclau,[108] by other words, "the universal as an empty but ineradicable place,"[109] "hegemonized by some contingent, particular content that acts as in stand-in – in short, each Universal is the battleground on which the multitude of particular contents fight for hegemony."[110] The relationship between universalism and relativism (particularism) is central to curriculum studies,[111] mainly fuelled by structuralist and post-structuralist approaches. From its conceptual contributions emerge the resignification of subjectivity and knowledge. In Žižek's theory

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103 Slavoj Žižek (1999, p. 81).

104 Slavoj Žižek (1999, p. 34), "Hegel explicitly posits this night of the world as pre-ontological: the symbolic order, the universe of the Word, *logos,* emerges only when this inwardness of the pure self 'must also enter into existence, become an object, oppose itself to this innerness to be external."

105 Slavoj Žižek (2012, p. 128).

106 Slavoj Žižek (2012 p. 260).

107 Anthony Giddens (1990a, p. 42), "Structuralism *has not generated accounts of the interpretative work that is presumed in the everyday constitution of intersubjectivity.*"

108 Ernest Laclau (1996, pp. 59-60), "All subject *position* is the effect of a structural determination … there is nothing which is a substantial consciousness constituted outside the structure … the structure does not predetermine – this is the moment of the emergence of the *subject* as different from *subject positions* … as the decision constituting the subject is one taken in conditions of insurmountable undecidability, it is one that does not express the *identity* of the subject (something that the subject *already* is) but requires acts of *identification* … These acts split the new identity of the subject: this identity is, on the one hand, a particular content, on the other, it embodies the absent fullness of the subject … As the decision is always taken within a certain context, what is decidable is not *entirely* free: what counts as a valid decision will have the limits of a structure which, in its actuality, is only partially destructured."

109 Ernest Laclau (2007, p. 58).

110 Slavoj Žižek (1999, pp. 100-101).

111 Jean-Claude Forquin (1996).

of subjectivity, knowing is irreducible "subjective"[112] because the subject is part of the reality but in continuous alienation of itself from culture or education, as Hegel says to what he calls *Bildung*:

> Culture or self-alienated Spirit, deals with the painful process of the subject's gradual overcoming of this alienation through the hard work of Bildung, of the self-sacrificing "education" destined to elevate the subject to the level of universality: to become a universal subject reconciled with Substance, one has to renounce any direct identification with the particular nature of one's identity.[113]

As a process of a secondary identification, formal is a space of "the academic community of knowledge versus the traditional wisdom passed from generation to generation."[114] Are education and its curriculum an experience of consciousness?

Žižek argues that the task of radical emancipatory politics "remain faithful to the universalist/secular project of modernity,"[115] and distinguishes between *false* and *true* points, *false* and *true* choices"[116] through not "a proliferation of strategies for how to "resist" the predominant dispositif from marginal subjective positions, but in thinking about the modalities of a radical rupture in the predominant dispositif itself."[117] If education belongs to ideological state apparatuses,[118] it also becomes an experience of consciousness within the intersubjectivity of knowledge in Althusser' s thought. To Sartre[119], subjectivity is not a shred of individual evidence but intersubjective evidence[120] on which "the subjective moment, as a way of being inside the objective moment is absolutely indispensable to the dialectical development of social life and the historical process."

112 Slavoj Žižek (2012, 389).

113 Slavoj Žižek (2012, p. 565).

114 Slavoj Žižek (1999, p. 190).

115 Slavoj Žižek (2012, p. 70).

116 Slavoj Žižek (2012, p. 802).

117 Slavoj Žižek (2012, p. 994).

118 To Alain Touraine (2007, p. 17), being in mind both Hegel and Althusser, "The subject is neither a *dash of spirit*, nor a tool in the hands of the founders of public or private administrative apparatuses."

119 Jean-Paul Sartre (2016, p. 38).

120 In the English translation is used the word 'fact'; in the original, évidence.

Subjectivity includes 'the being-for-itself' to 'being-for-others, belonging to "a certain type of internal action, an interior system – *système en intériorité* – rather than the simple, immediate relationship of the subject to itself." The importance of subjectivity lies in its *outside characteristic* because for Sartre, the first essential characteristic is "non-knowledge even at the level of consciousness, it is because the individual – the organism – has to *be* his being – *être son être*."[121] As he thinks, consciousness enters into the subject's place because "once consciousness is involved, subjectivity becomes objectivity"[122] towards projection.

In a more sociological approach and the framework of late modernity, Giddens and Touraine discuss the subject through the notion of agency and its links to agent, actor, structure, structuration, and system. To Touraine,[123] the actor's return happens through his personal and collective identity because the subject's name is the actor's name when he is at the level of historicity and the production of the significant narrative orientations of social life. This social life has three focus points: the subject in his liberty and creativity, historicity as the space and time of cultural models, and social movements structuring these cultural models. Touraine's historical subject – or personal subject[124]– is essentially his social identity, subsumed by individual, community, and state, albeit the volition by the individual to be the actor of his existence is what he calls the subject"[125] but "the subject exists as a principle of analysis only on condition that its nature is universal."[126] The social fades the personal.

Giddens[127] interconnects "a theory of the human agent, or the subject," "the conditions and consequences of action," and "an interpretation of 'structure'

121 Jean-Paul Sartre (2016, p. 29).

122 Jean-Paul Sartre (2007, pp. 29, 34), "This repetition-innovation within a particular, immediate relation, always transcendent to external being, is called projection. This means that what is essential in subjectivity is knowing oneself only outside, in one's own inventiveness, and never inside. If subjectivity knows itself inside, it is dead; knowing itself outside it does indeed become an object, but an object in its results and this leads us back to a subjectivity that is not really objectifiable."

123 Alain Touraine (2007, p. 121), "The subject, whether or not borne along by a social movement, manifests itself in the consciousness of the actor."

124 Alain Touraine (2007, p. 124), "And in a transitional phase, I myself referred to the *historical subject,* whereas now I only want to speak of the *personal subject* (which in no way reduces it to individual cases). We were incapable of talking of the personal subject, and understanding our culture's return to the search for the self."

125 Alain Touraine, 2007, p. 208).

126 Alain Touraine, 2007, p. 208).

127 Anthony Giddens (1990a, p.49).

as somehow embroiled in both those conditions and consequences," fowling the principle that "the notions of action and structure *presuppose one another,* in a dialectical relation:"[128] Indeed, the other and the self interconnect through a relationship based upon trust, demanding the

> *opening out of the individual to the other*. Where it cannot be controlled by fixed normative codes, trust has to be won, and the means of doing this is demonstrable warmth and openness … where trust is not pre-given but worked upon, and where the work involved means a mutual process of self-disclosure.[129]

With this theory of subject concerned with the duality of action and structure, the subject becomes action or agency, the subject-acting in a determined structure ("rules and resources, organised as properties of social systems"), system ("reproduced relations between actors or collectivities, organised as regular social practices"), and structuration ("conditions governing the continuity or transformation of structures, and therefore the reproduction of systems").[130] The dominant characteristic that defines this late modernity both of Touraine and Giddens becomes associated with a subject (agent, agency, actor) molded by society, despite his efforts to sustain subjectivity or subjective interests.

If "post-Marxism reveals the sexual, racial, class, and ethnic divisions of social life and promotes progressive transformation,"[131] its educational and curricular framework highlights subjectivity and its process of subjectivation from maximum autonomy of the self to complete control of the other. Are non-directive pedagogies and emancipatory pedagogies only a utopia?

Any answer is far from consensual, especially in an era of accountability in which the social norm dictates the conversion of subjects to numbers. The spectrum of the other was normalized along the historical and social time of educational institutions, sustaining a practice of politics toward the socialization of the subject in his daily life. However, in a subjective curriculum we find "multiplicities, activated by participating in the recreation of the social world."[132]

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128 Anthony Giddens (1990a, p. 53).

129 Anthony Giddens (1990b, p. 121).

130 Anthony Giddens (1990a, p. 66).

131 Philip Goldstein (2002, p.21).

132 Tricia M. Kress and Robert Lake (2016, p. 132).

Knowledge – the center of the curriculum – is a process of discovery establishing a connection of exteriority with the known object," as Sartre says,[133] and understood by Giddens,[134] interpreting Marx's thought, as a medium of domination: "an administered society is one in which centralized control of knowledge or information is a medium of domination." Such analysis highlights the practical and discursive consciousness of knowledge, a growing duality derived from tacit knowledge and theoretical knowledge and supporting, respectively, basic principles of pragmatism and cognitivism. It is crucial to note on the school curriculum a reemergence of the practical knowledge-based competency (cognitive, practical, and socio-emotional), accommodating to the forms of accountability language. As Pestre writes,[135] "the nature of this knowledge is new: what matters is that it makes *hic et nunc* the action, its effect and not its understanding."

If schools transmit shared and powerful knowledge on behalf of society,[136] according to Young,[137] the school curriculum becomes itself a universal dispositif of a structured order to understand the binomial subjectivity-truth. The truth of universal knowledge is unquestioned by the subject. Foucault's care of oneself is only the subject's misunderstanding due to its pedagogical deficit, being the official knowledge a question of pedagogic transmission/acquisition, in terms of Bernstein's conceptual approach.[138] Subjectivity introduces a sign of one non-objectionable knowledge or one unfinished identity, wherein knowledge, within Butler's dialectical model, "proceeds through opposition and cancellation, never finally reaching an *absolute* or final certainty, but only positing ideas that cannot be fixed as truths."[139]

133 Jean-Paul Sartre (2016, p, 25).

134 Anthony Giddens (1990a, p. 162).

135 Dominique Pestre (2013, pp. 61-62).

136 Looking at the school as an agency of socialization, Alain Touraine (2007, pp. 48, 66, 76) writes "The school was to transmit knowledge, educate the mind, impose discipline, and make the differences between individuals disappear behind the uniformity of the rule - that is, by everyone's submission to the forms of thought and life which ensure the success of production and reward the best."; "Teachers are upset by having to transmit knowledge to many pupils who show no interest in the syllabus and are bored at school – where they still sometimes find themselves at an adult age."; "It is defended by those who would like to restrict religion to the private sphere and who consider schools to be a sanctuary where the teacher must only recognize the rational individual and ignore the cultural, social and psychological situation of each pupil."

137 Michael Young (2013).

138 Basil Bernstein (1971).

139 Alice Salih (2002, p. 3).

Through the *Architecture of Self*, William Pinar looks at Psychoanalysis as a focal point to understand the relationship with education, mainly when the curriculum is described as a corpus of knowledge. Such a perspective is deeply analyzed by Deborah Britzman.[140] Education not only "continues to appear as a problem of self/other relations and of interiority,"[141] it is also a "relation that exists and does not exist at the same time. Before there is education, there is potential space."[142] Education is best considered a frontier concept – "something between the teacher and the student, something yet to become. The work of learning is not so much an accumulation of knowledge, but a means for the human to use knowledge, to craft and later itself" – "we might think of learning as a dynamic psychical event, made from our capacity for extremes."[143] So, education should not be considered "as an application of knowledge onto the body of a student and as material set in stone,"[144] and the "study of learning is a study of how individuals attach, displace, forget, and disengage knowledge;"[145] learning "is crafted from a curious set of relations: the self's relation to its own otherness and the self's relation to the other's otherness."[146]

Education has often been a vague concept. In schools, the language used to describe it has been dominated by technical or bureaucratic rationality. Soon, William Pinar looks – under Freire's influence and common to almost all criticism – at schooling as a dehumanizing experience:

> As many have pointed out, the informing image of young people implicit in American schooling is that children are basically wild, unpredictable beasts who must be tamed and domesticated … Education becomes an act of depositing.[147]

He says that in moving to cultural studies, curriculum specialists are asking what knowledge is of most worth and "this is a question that must be asked constantly; the answers we provide will change according to project,

140 To discuss the close association between education and psychoanalysis, see Edward F. Pajak (1981).

141 Deborah Britzman (2003, p. 6).

142 Deborah Britzman (2003, p. 19).

143 Deborah Britzman (1988, pp. 4, 5).

144 Deborah Britzman (2006, p. 63).

145 Deborah Britzman (1988, p.31).

146 Deborah Britzman (1988, p.134).

147 William F. Pinar (1975a, p. 360).

person, nation, and the historical moment."[148] The curriculum is the space of knowledge and the space of encounter and not merely what the teachers and students must do. Pinar looks at the field as a complex of scholarly inquiry within the broad field of education that endeavors to understand the school subjects and academic disciplines.[149] This perspective is not merely an option, socially and historically implanted within schools; it also implies the aspiration to research the relations among the curriculum, the individual in society and history:

> Such an aspiration means that we understand the project of *public education* as the *education of the public*, an understanding that requires us to question – and perhaps reject – the current public school curriculum as it is ritualistically aligned with the academic disciplines as they exist in most colleges and universities.[150]

Psychoanalysis provides a theoretical analysis of dynamic knowledge.[151] The curriculum as a personal encounter, widely contextualized, is a subsidiary concept of psychoanalysis because the subjects, according to Habermas,

> come to be more than mere objects who passively observe and act out the inevitable execution of historical laws, historical determinism can be transcended. Human beings emerge as active agents who, due to their awareness of historical forces and the effects of such forces on individual, help shape the future expression of these historical forces.[152]

This agency transforms curriculum into a text to understand the multiplicities and differences of school experiences in a surveilled time.[153]

148 William F. Pinar (2004, p. 19).

149 William F. Pinar (2004, p. 21).

150 William F. Pinar (2004, p. 21).

151 For William F. Pinar (1994, p. 246), "Understanding curriculum as social psychoanalysis implies that the progressive revelation of the past transforms the present. Knowledge is not static, not deposits in a cognitive bank account or skills to be employed at worksites; knowledge enables us to see who are and what the world is and might become."

152 Joe Kincheloe and William F. Pinar (1991, p. 3).

153 To William M. Reynolds and Julie A. Webber (2016, p. 6), "The place from which [curriculum] theory is constructed is not always already framed by formal discourse, and our inability to see this disposition perhaps stems from our professional need to defend a measuring device, often to the detriment of our subject. To eradicate this human error—which, ironically, stems from our antihuman methodological tendencies (Althusser 1971)—we can choose to emphasize nomadic thinking. The movement of the thought in question is flexible and nomadic, transversal and nonhierarchical; this

The curriculum is not a singular term because it implies a knowledge of life experiences. One of the most significant areas of these life experiences is gender and post-colonial theories mainly focused on the post-structuralist and post-modern approaches. The school curriculum considers the subjectivity through this identity agenda, devaluing the practical/efficient/measured knowledge. In an era of connectivity, practical knowledge makes a pragmatically statement of need for the Internet's connected knowledge or for the Curriculum of Things, which is carried into cyberspace understood as a new form of alienation of subject. This new symbolic order – that of the "Big Other" – emphasizes not only the subject in its singular existence but the hive-mind[154] of interconnected subjects. Are education and its curriculum a deconstruction of formal knowledge?

The growing importance of the Internet of Things concerning the subject embedded in algorithmic identity[155] gives education disquieting times, creating a new individualized universal. Exploring Matrix and its significant or dark consequences and considering the progressive digitalization of our everyday lives, Žižek says[156] that the essence of the film becomes "the Lacanian *big Other*: the virtual symbolic order, the network that structures reality for us. This dimension of the *big Other* is that of the constitutive alienation of the subject in the symbolic order: the big Other pulls the strings, the subject does not speak, he *is spoken* by the symbolic structure." Undoubtedly, the most challenging aspect of this new individualized universal is the multiplicity of knowledge coming from the massive proliferation of technological devices. As Pestre expresses[157] about media social,

> The web generates other ways of judging available knowledge, other ways of producing, appreciating and consuming information, other

thought is able to move between the formations of the state, the unconscious, or language, and not just exclusively within one formation."

154 Shoshana Zuboff (2019, p. 411), "Instrumentarianism reimagines society as a hive to be monitored and tuned for guaranteed outcomes, but this tells us nothing of the lived experience of its members. What are the consequences of life lived in the hive, where one is perceived as an "other" to the surveillance capitalists, designers, and tuners who impose their instruments and methods?"

155 Ask Michel Arendt and Antonio Negri (2017, p. 119), "But what is an algorithm? It is fixed capital, a machine that is born of social, cooperative intelligence, a product of "general intellect." Although the value of productive activity is extracted by capital, one should not forget the power of living labor at the base of this process, living labor that is virtually, and potentially, disposed to affirm its own autonomy: without living labor there is no algorithm. But algorithms also present several novel characteristics."

156 Slavoj Žižek (2012, p. 336).

157 Dominique Pestre (2013, pp. 29-30).

> ways of managing the relationship with authorities and experts… radically polycentric, the web also marginalizes the hierarchical channels of knowledge transmission, and thus undermines science as a natural form of authority.

The digital subject: datafication, globalization, and decoloniality

Digital technologies contribute to a resignification of the subject, emphasizing both its individual and economic conception. Connectivity as a technological singularity rolls back to colonial nature, imposing new colonialism that "does not just happen by itself but is driven by the imperatives of capitalism."[158] Data colonialism is severely impregnated in subjects' daily lives and social relations, deepening more and more the desire of information. The digital subject is exacerbated by hyper-individualism – to Lipovetsky:[159] society of seduction, material world light, fluid and mobile, and hyper-modern times – and the market personalization, that is, the capture of the subject by neoliberal politics and technological epistimicity. The subject becomes its value-data to be called by his name, its daily interests, and in the future – certainly maybe – *his mode de penser*.

Moreover – and technology in its digital web is the focal point of this resignification of the digital subject – hyper-individualism and economic interests are the two faces of the same coin that is social success. In its process of subjectivation from and into market logic, the individualized subject assumes a subjective and unconscious answer to the "desire of an other" (Žižek, 2013, p. 202) by which the market continually challenges it. The subject's life is nowadays measured from social networks that contain market signs, specialty the individual sign acknowledged from this imperative rule: be yourself among themselves. Consequently, the market "provides the mediating process which forms the basis of a true reconciliation between the universal and the singular,"[160] in which the digital subjectivity reinforces the subject-consumerist, creating a supposed egalitarian order.[161] However,

158 Nick Couldry and Ulisses A. Mejias (2019, p. xii).

159 Gilles Lipovetsky (2006).

160 Slavoj Žižek (2012, p. 243).

161 Slavoj Žižek (2012, p. 242), "Market competition really brings people together, while organic order divides them."

as Deleuze[162] argues, subjectivation becomes a singular event – not intrinsically personal – of a possible world. Nonetheless, the world of digital subjectivation occurs in a global world.

The age of surveillance capitalism, as Zuboff[163] puts it, is *the* implementation of the neoliberal economic paradigm – "its political economics, its transformation of society, and especially its aim to reverse, subdue, impede, and even destroy the individual urge toward psychological self-determination and moral agency" – as well as its ideology of individualism "that shifts all responsibility for success or failure to a mythical, atomized, isolated individual, doomed to a life of perpetual competition and disconnected from relationships, community, and society."[164]

Globalization is undoubtedly the outer face of the new internal subjectivity, utterly technological and virtual. Politically, economically, and culturally, globalization is increasingly characterized by nothing in its nullities of nonplaces, nonthings, nonpeople, and nonservices.[165] As a mode of subjectivation, globalization plays a decentered form of control through, as Couldry and Mejias say, a new colonial ideology: the ideology of connection, datafication, and personalization.[166]

In this global narrative, quoted ideologies simultaneously create similarity and autonomy (but the subject needs to know how the new order works to dismantle his autonomy[167]. It makes sense to analyze individual autonomy

162 Gilles Deleuze (1995, p. 147), "I think I've found a concept of the Other, by defining it as neither an object nor a subject (an other subject) but the expression of a possible world."

163 Shoshana Zuboff (2019, p. 31).

164 Shoshana Zuboff (2019, p. 34).

165 George Ritzer (2007).

166 Nick Couldry and Ulisses A. Mejias (2019, p. 16), "First, there is the ideology of connection, which presents as natural the connection of persons, things, and processes via computer-based infrastructure (the Internet) that enables life to be annexed to capital … There is also the ideology of datafication, which insists that every aspect of life must be transmuted into data as the form in which all life becomes useful for capital … The marketing ideology of personalization makes such tracking and surveillance seem attractive."

167 Nick Couldry and Ulisses A. Mejias (2019, p. 194), "Worse, like all notions of literacy, media literacy relies on the virtuous 'disposition' of the subject, which misses how the new order works to dismantle the autonomy of the subject."

through Deleuze's control societies,[168] or Zuboff's surveillance societies,[169] or Foucault' disciplinary societies,[170] as well as through ubiquitous digital networks) as technologies of transindividuation, "operating as new technical associated milieus have fundamental effects for symbolic and psychical associated milieus, and thus for new ways of being,"[171] in a capitalization of life. The digital experience forces knowledge, power, and subjectivation to be revisited:

> In this future we are exiles from our own behavior, denied access to or control over knowledge derived from its dispossession by others for others. Knowledge, authority, and power rest with surveillance capital, for which we are merely human natural resources. We are the native peoples now whose tacit claims to self-determination have vanished from the maps of our own experience.[172]

In education and curriculum overcome ideologies of connection, datafication, and personalization, and surveillance societies are increasingly used as assumptions justifying the new order related to comparative evaluation by numbers, self-evaluation as a principle of accountability, competency as a tool guide for what counts as common knowledge, and personalized learning by algorithms. On the one hand, the intrinsically individual

168 Gilles Deleuze (1995, p. 178), *Control societies* are taking over from disciplinary societies. "Control" is the name proposed by Burroughs to characterize the new monster, and Foucault sees it fast approaching. Paul Virilio too is constantly analyzing the ultrarapid forms of apparently free-floating control that are taking over from the old disciplines at work within the time scales of closed systems."

169 Shoshana Zuboff (2019). See also Shoshana Zuboff, Norma Moellers, David M. Wood, and David Lyon. (2019, pp. 260-261), "Anyway, this instrumentarian power is the logical consequence already being constituted by surveillance capitalists, for this shift that I was talking about yesterday: it's not economic; it's social. You know, it's not division of learning in a factory somewhere. This is a new principle of social ordering. They dominate it. They know. They decide. They decide who decides. And this is producing a new form of power. And this is the internet of things, and connectivity, and sensors, blah, blah, blah … It's got this material infrastructure, but it produces a form of power. And that form of power, in my view, has not been adequately named. And it's not enough just to say, 'It's control.'"

170 John O'Neill, (1986, p. 42), "Foucault's studies, however controversial, may be seen to extend Weber's concept of rational-legal discipline through studies of the discursive practices that construct a physiology of power/knowledge which deserves the attention of social scientists."

171 Bernard Stiegler (2009, p. 33). The author uses "the I-other" concept: "Yet, what makes possible a narcissistic short circuit is equally what enables me to encounter the Other, but by way of an other – including the other that I am in the guise of 'myself as another' – and through a long circuit in the course of which the other appears to me and grants me access to the consistence of the Other, that is, where my alterity and my singularity are reflected in each other, what I have called (in Stiegler, 2003, p. 42) 'the I–other.' Ross Abbinnett (2018, p. 9), from Stiegler' s thought, examines "the relationship between digital, informatics and artificial intelligence systems and the disorientation of human subjectivity that has occurred in network societies."

172 Shoshana Zuboff (2019, p. 100).

autonomy of the subject is acknowledged, but on the other hand, such autonomy is controlled when transmuted into surveilled datafication through connected devices. Furthermore, "by installing automated surveillance into the space of the self, we risk losing the very thing – the open-ended space in which we continuously monitor and transform ourselves over time – that constitutes us as selves at all."[173] It is one surveilled autonomy very different of the basic principles of freedom because imposed by technological necessities.

The digital subjectivity reinterprets education and its aims at emphasizing the self- controlled by the other in the space of a new autonomy. Personalization, self-measurement, well-being, and valuable self-knowledge constitute the dominant ideology for education. This is the ongoing curriculum: pragmatically, efficiently and productively moving towards "the rationality of datafication,"[174] based on digital competencies to understand better the globalized and colonized world in its new territorialities of big data, wherein the digital subject is just a code or a barcode. What is the most of worth knowledge?

The knowledge of personal data emerges as commercial interest, transforming education and its curriculum into a personal user, producing infinite new possibilities of knowing in which learning is a function of predictable standards. The individualized curriculum rises to dominance as a deepened way of control. In surveillance capitalism, the instrumentarian power radically changes knowledge: "The knowledge that now displaces our freedom is proprietary. The knowledge is *theirs,* but the lost freedom belongs solely to *us*."[175] Theirs or of Big Tech, the powerful and invisible of digital knowledge, because "the knowledge to which we sacrifice our freedom is constructed to advance surveillance capitalists' commercial interests, not our own."[176]

In order to focus on a neotylerian approach to the curriculum – in which the technique returns to its social language – knowledge must be pragmatic, taking into account the Curriculum of Things and its powerful influence on the school curriculum. Generally pragmatic means what is needed to act in

173 Nick Couldry and Ulisses A. Mejias (2019, p. 161).

174 Nick Couldry and Ulisses A. Mejias (2019, p. 202).

175 Shoshana Zuboff, 2019, p. 346).

176 Shoshana Zuboff, 2019, p. 347).

the world to be successful and apply it to school. The question is: "what are the meanings that this curriculum gives my students access to?[177]

This expression of accomplishment curricular tasks has been conceptually reviewed in asynchronous activities of distance education, of which MOOC is evidence of almost teaching everything to everyone, as well as in personalized, innovative, and creative synchronous activities, dominated by dynamics of entrepreneurship, heightening the gap between old subjects and new subjects, as advocated by technological thinkers.[178] Curriculum-based on digital competencies is the innovative and recursive framework to algorithmic curriculum or own navigation through the world of information. If widely considered, algorithmic knowledge is valuable by its calculative and quantified significance,[179] making it possible to respond in a personalized way from big data.

In Couldry' s and Mejias' words, it is "intimate knowledge." Personalized, commercially targeted,[180]and colonized[181] in the realm from the Internet of Things to the Internet of Everything.[182] It is also pragmatic knowledge, where the logic of probability becomes the truth of mining data. According to Horkheimer, "Pragmatism reflects a society that has no time to remember and meditate... Probability or, better, calculability replaces truth."[183] The digital subject then becomes a quantified narrative, distanced from Foucault's discursive narrative, since it is a discursive narrative transmuted into data, subordinated to commercial interests and its efficiency and productivity,[184] as well as to the decline of the subject through "the 'objective mind', "the spirit

177 Michael Young (2013, p. 6).

178 See, for example, Marc Prensky (2017).

179 To William F, Pinar (2011a, p. 9), the "quantification to almost all aspects of life."

180 Nick Couldry and Ulisses A. Mejias (2019, p. 144), "Today's social knowledge is produced principally through privately controlled data extraction whose global goal is to discriminate between social actors for economic advantage."

181 Nick Couldry and Ulisses A. Mejias (2019, p. 136), "Human inputs are only part of the territory that data colonialism seeks to annex to human capital."

182 Nick Couldry and Ulisses A. Mejias (2019, p. 136).

183 Max Horkheimer (2004, p. 30).

184 Michael Hardt and Antonio Negri (2017, p, 120) write about two sides of machinic subjectivities: "Certainly the characterizations of the new freedom of digital life promoted by corporate advertisers, product marketers, and management gurus are mystifications, but they can also help us recognize the nature of the machinic subjectivities and machinic assemblages that are forming."

that pervades social life in all its branches."[185] It is crucial to recognize that this understanding of the subject requires considering the oxymoron related to its maximum individualization and minimum autonomy. As Horkheimer writes in the 1940s, "the future of the individual depend less and less upon his own prudence and more and more upon the national and international struggles among the colossi of power"[186] – that is in the 2020s, the subject' present and future are captured by big tech companies – such as the big five: Amazon, Apple, Facebook, Google, Microsoft[187] – the visible face of the instrumentarian technological power that effectively exiles us from our own behavior. The digital subject is interwoven in the imperial "network power, a new form of sovereignty [that] is now emerging, and it includes as its primary elements, or nodes, the dominant nation-states along with supranational institutions, major capitalist corporations, and other powers."[188]

The new powers, however, are a product of 'machinic subjectivities' or of 'machinic assemblages,'[189] in other words, incorporating all kinds of human and non-human elements or singularities, according to Guattari's and Deleuze' thinking on a broader range of beings, human and non-human.[190] In a machinic and algorithmic world – and not correctly in a free digital world if it really exists – the instrumentarian digital power "severs our insides from our outsides, our subjectivity and interiority from our observable actions. It lends credibility to the behavioral economists' hypothesis of the frailty of human reason by making it so, as otherized behavior takes on a life of its own that delivers our futures to surveillance capitalism's aims and interests."[191] For better understand this, I point out in Chapter 4 the politics of presence in the curriculum.

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185 Maxi Horkheimer (2004, p. 104), "The decline of the individual must be charged not to the technical achievements of man or even to man himself … but rather to the present structure and content of the *objective mind*, the spirit that pervades social life in all its branches."

186 Max Horkheimer (2004, p. 95).

187 Nick Couldry and Ulisses A. Mejias (2019, p. 50), "The Big Five sometimes interact and mix other players in the social quantification sector. The operations of these players can be organized into five key (often intersecting) domains: hardware, software, platforms, data analytics, and data brokerage (all of which may also describe some of the actions of the Big Five!".

188 Micahel Hardt and Antonio Negri (2004, p. xii).

189 Michael Hardt and Antonio Negri (2017, p. 121).

190 Michael Hardt and Antonio Negri (2017, pp. 121-122). If "a machinic assemblage, then, is a dynamic composition of heterogeneous elements that eschew identity but nonetheless function together, subjectively, socially, in cooperation," is there not a form of subjugation, or is it only a form of subjectivation? The authors believe the latter because "the machinic subjectivities that are necessary for biopolitical production resist calculation, measure, and objectification." (p. 132).

191 Shoshana Zuboff (2019, p. 349).

Chapter 4 – The politics of presence on Curriculum

STEM, not history, dominates the school curriculum of our era.[1]

1 William F. Pinar (2019, p. 149).

The politics of presence on curriculum are understood in this text as the practice of knowledge, power, and subjectivation, Foucault's three axioms for the analysis of experience. Foucault[2] involves the connected "analysis of modes veridiction, the study of techniques of governmentality, and the identification of forms of practice of self interweave," by which "the relations between truth, power, and subject without ever reducing each of them to the others" can be studied. According to Grumet[3], the politics of presence constitutes the study of curriculum as educational experience through Pinar's notion of *currere*, the lived experience knowledge. A broad approach to make this question clear needs to consider the following points: the subjectived curriculum – as the relational foundation of individuality positioned across space and time; curriculum as a complicated conversation; the present moved to virtual; worldliness of a cosmopolitan curriculum; the curriculum citizenship.

However, in order to focus on these statements, two central ideas are the starting point of the educational and curricular analyses, one based on Arendt's politics of disclosure – "speech in the presence of others, as necessary to any action taken in the public sphere"[4] – while the other is based on three interdependent strands for the study of the curriculum. Hence, "the study of curriculum phenomenon as a cultural object," "the study of the curriculum object as an event," and "the study of curriculum in the perspective of the researcher,"[5] because this means firstly "that the topic is recognized as a cultural object with a social history anchored in ideology and nested in layers of meaning that call for clarification and interpretation". Secondly, it means "that curriculum happens, in schools, every day; it is a transaction that takes place among teachers and students, administrators and school boards, legislators, and state agencies". Thirdly, "that the consciousness of any scholar who has been schooled is itself saturated and shaped by curriculum."[6]

From the politics of presence, "the canonical curriculum question – What knowledge is of most worth? – cannot be settled for all time by teaching one set of subjects eternally important."[7] The school subject includes the

2 Michel Foucault (2010, p. 8).

3 Madeleine R. Grumet (2017).

4 Madeleine R. Grumet (2017, p. 19).

5 Madeleine R. Grumet (2017, p. 81).

6 Madeleine R. Grumet (2017, p. 81).

7 William F. Pinar (2019, cap. 1, p. 12).

empirical present and its lived experience, embedded in past and future and immersed in circumstances that cannot always be universalized. In this text, Pinar's ideas about the curriculum study are revisited, emphasizing his recurring questioning of the subject's reconstruction.

The subjected curriculum

Currere[8] is the presence of "I" or subject in the curriculum, a concept used by Pinar[9] to underline not only the significance of the individual's experience of the school curriculum but the subjectivity into the theoretical and practical discussion of the curriculum. *Currere* is daily life. In his text *How I Work*, Pinar realistically paints a detailed drawing about himself and his *currere* daily work.[10] If the subject's habitat is the plenty world of meanings, thoughts, and actions embedded in personal and social interactions – the shared relationship between oneself and others – the school knowledge integrates the lived experience as a subjective way of questioning. Thus, the curriculum becomes the dynamic space and time of oneself shared with others wherein the lived experience matters. *Currere* is an autobiographical method,[11] "providing the theory and practice for emphasizing one's own

8 Freire's thought was associated with the Pedagogy of the Oppressed. Translated to English and republished in the USA, this book exerted a significant influence on young teachers, including William F. Pinar, as he recognized the currere method and the banking or digestive concept of education: "The order of deliberative work I have described elsewhere as the method of currere may seem to some a too-subtle order of work, on whose political import is invisible"; "in one sense I am speaking of Freire's *conscientização* or learning to perceive social, political, and economic considerations and to take against oppressive elements of reality" (William F. Pinar, 1994, pp. 102,110); "Hence to speak about American schooling is to speak about the banking or digestive concept of education, the latter term being the one Sartre employed to describe the process in which information is *fed* to pupils by teachers in order to *fill them out*" (William F. Pinar, 1975, p. 360).

9 William F. Pinar (2011a).

10 William F. Pinar (1999, p. 197), "I begin the day by making an entry in my diary or journal. I think of my early pieces on *currere*, written in 1973, 1974, how I would read, say, Virginia Woolf's *The Voyage Out*, marking passages that struck me in some way, making a text of those, then juxtaposition them with my diary. I hesitate to use that word, although it's not entirely wrong: after all, I do list events, as a diarist might. But for me the events I wish to list are primarily psychological, events that occur on the edges of everyday activities… My experience of the world constitutes in large measure my inner life, and my inner life has everything to do with how I am in the world".

11 This method enabled William F. Pinar to propose four steps by which one may understand the nature of one's life in schools and the functions of schools in one's life- regressive, progressive, analytical, and synthetical. *Regressive*: "One returns to the past, to capture it as it was, and as it hovers over the present … My hypothesis is that to the extent one dwells in a conceptual present, and in the subjective present, is the extent to which one dwells in the past … the biographic past it is usually ignored … the present then becomes acting out of the past … bringing the past to the present by printing … the regression to the past and the return to the present". *Progressive*: "progressive derives from *pro* meaning "before" and *gradi* meaning "to step, go." In this step, we look the other way. We look, in Sartre's language, at what is not yet the case, what is no yet the present. We have found that

lived experience, enabling the individual to exist apart from institutional life, creating distance from the everyday for the sake of self-reflection and understanding,"[12] but belonging to the world, positioned by Pinar as "ground" and the individual as "figure" in part as a tactic against the conflation of the two, against narcissism and conformity."[13]*Currere* is an autobiographical method centered on existential experience, namely when questioned: What is the nature of educational experience?

The curriculum as a Latin word is *currere* that signifies, according to Pinar[14], an autobiography method: "part of the project of *currere* is to contradict presentism by self-consciously cultivating the temporality of subjectivity, insisting on the simultaneity of past, present, and future, a temporal complexity in which difference does not dissolve onto a flatted social surface." Because it is highly symbolic, the curriculum study requires its historical, social, and subjective situating, that is, in terms of life story and self-formation[15], researched through the *currere* method, in which the self "becomes mobilized for engaged pedagogical action – as a private-and-public intellectual – with others in the social reconstruction of the public sphere."[16]

Currere is a method to particularize the lived experience of the subject's self-consciousness in the realm of shared knowledge about the social and subjective world. The subject lives in the world is the "Being-with" of Heidegger,[17] and the character of curriculum as knowledge is subjectively, culturally, and historically situated; it is "simultaneously social and subjective, focused on power and psyche, the social and the solitary, forefronting the subjective and social reconstruction decolonization demands."[18]

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the future is present in the same sense that the past is present. It influences, in complicated ways, the present; it forms the present". *Analytical*: "Describe the biographic present, exclusive of the past and future, but inclusive of responses to them (...) Juxtapose the three photographs: past, present, future. What are their complex, multidimensional interrelations? How is the future present in the past, the past in the future, and the present in both?" *Synthetical:* "Includes one's public and private, internal life, one's externally discernable behavior and the contents of one's stream-of-consciousness. Make it all of a whole. It, all of it - intellections, emotions, behavior, occurs in and through the physical body." (William F. Pinar and Madeleine R. Grumet, 1976, pp. 51-63; William F. Pinar, 1994, pp. 55-61).

12 William F. Pinar, 2011a, p. xii).

13 William F. Pinar, 2011a, p. xiii).

14 William F. Pinar, 2004, p. 240).

15 William F. Pinar (2005, p. 4).

16 William F. Pinar (2004, p. 50).

17 Martin Heidegger (1971).

18 William F. Pinar (2011b, p. xiv).

Currere is a subjective and social reconstruction of the lived experience wherein "curriculum is experienced, enacted, and reconstructed"[19] more as an individual experience – the everyday life – than as a collective experience. It is a shared experience always inflected in "historical time and geographical place, and by our distinctive experience of these,"[20] but emphasizing the subject's capacity for agency, informed by his context, individual dynamic, singularity, and autonomy.

The focus based on individual consciousness highlights the subjectived curriculum embedded of personal and contingent narratives as the knowledge that is of most worth, looking critically to historical time of structures, the true landmark of diachronic time, always understood as a result of a hierarchal and linear conception of time. Micro-history and quotidianity offer another perspective to the language of the time, revealing moments (beliefs, thoughts, daily practices, personal habits) of human life so far away from structural time and skewing in favor of the person as a historical agency, generally treated as superficial and ephemeral events, because "in overviews in particular, and in studies spanning long periods of the time, there is a tendency to describe the unfolding of large and anonymous processes as if individual humans had no role in them."[21]

Time and place play a crucial role in *currere*, a method for personal agency. Time and place are connected, but place emerges as a culturally, socially, and politically category to understand the subject as a lived experience into communities. As "presence does not refer to a temporal but to a spatial relationship to the world and its objects," "the politics of presence share your space, they are, as they say, in your face."[22] From space emerges the individual agency temporally contextualized in frames of time, in which each subject and generation is a link. The curriculum as a bridge from one generation to another is a phenomenological concept of curriculum advanced by Grumet wherein individual live matter in its synchronic conditions. Space and time speak both the subjective and particular way of understanding the lived experience and the inner experience of subjects living together, that is, the agency on the ground of 'social and subjective reconstruction."[23]

19 William F. Pinar (2011a, p.1).

20 William F. Pinar (2011a, p. 5).

21 Sebastian Conrad (2016, p. 30).

22 Madeleine R. Grumet (2017, p. 78).

23 William F. Pinar (2011a, p. 2), "In my terms, educational experience enables subjective and social reconstruction."

Curriculum questions, Pinar says,[24] "are questions in context, disciplinary but also historical (despite his insistence on timelessness) and often political."

Currere is subjectivity, acknowledging that "subjectivity – the personal possessive implies the subject's noncoincidence with itself – is imprinted by culture, nationality, and by historicality itself,"[25] not being "independent of time, place, and circumstance, including politics"[26] albeit "when 'the social' predominates, agency fades."[27] *Currere* "underscores the lived experience of study, in solitude and with others, those "others" being one's contemporaries as well as those who speak to us through print and on screen,"[28] raising at the same time of the individual as a historical entity and its space-time because "his awareness of his own individuality as a conscious human being, including recognition of his own identity."[29]

More than knowledge to be transmitted and assimilated according to universal patterns,[30] in the subjectived curriculum, "knowledge needs to be brought back in self- knowledge,"[31] as well as self-conscious individuality and personal identity. In curriculum – in its school subject – "students can learn to experience the power of words, of concepts, and of understanding,"[32] emphasizing the recurring question of the subject, which means working individually and together to ensure that curriculum does not fall behind the planned program and its objectives and results of a linear implementation.

Currere is a shift method – from prescription to understanding[33] – to understand how educational experience is concerned with phenomenological and psychoanalytical approaches in which the subject is the center of educational experience. In this regard, *Currere* is a narrative form of giving an account of oneself to ourselves and others, running continuously

24 William F. Pinar (2019, p. 57).

25 William F. Pinar (2011a, p. 11).

26 William F. Pinar (2011a, p. 13).

27 William F. Pinar (2011a, p. 35).

28 William F. Pinar (2011a, pp. 124-125).

29 Max Horkheimer (2004, p. 128).

30 William F. Pinar (2019, p. x), "Educationally, the universal homogeneous "state" exists already through, for example, The Globalization of standardized testing, such as the Program for International Students."

31 William F. Pinar (2011a, p. 38).

32 William F. Pinar (2011a, p. 140).

33 William F. Pinar (2011a).

autobiographical. Thus, the practice of *currere* on curriculum ensures that the *I*, the subject, responds to the presence of the other into his lived experience as complicated conversation.

Curriculum as a complicated conversation

Is the curriculum a subjective reconstruction involving a conversation in its formative action?

In the context of a running of the course, *currere* – the Latin word as a trajectory of one unfolded future – "implies a conversation complicated with multiple interlocutors, multiple references, and temporal moments, as well as almost infinite possibilities, not a few of them awful. This last fact requires us to reconstruct the character of complicated conversation as ethical."[34]Although its planned origin is based on administrative interests, the curriculum is always a complicated conversation between selves and others, excavating the life experiences that enable us to understand the subject and his modes of subjectivation.

It is a running personal and public conversation in the subjectived world ground because the curriculum "happens, in schools, every day, it is a transaction that takes place among teacher and students, administrators and school boards, legislators, and federal and state agencies."[35] Accordingly, the complicated conversation that is the curriculum requires interdisciplinary intellectuality, erudition, and self-reflexivity. This is not a recipe for high test scores, but a common faith in the possibility of self-realization and democratization, twin projects of social and subjective reconstruction."[36] The complicated conversation occurs, perhaps, not only within the classroom,[37]

34 William F. Pinar (2011a, p. xiii).

35 Madeleine N. Grumet (2017, p. 81).

36 William F. Pinar (2004, p. 8).

37 For Arthur N. Applebee (1976, p. 37), the classroom discourse "mediates between broader cultural traditions and schooled knowledge leads to a new way to think about curriculum and instruction. A curriculum provides domains for conversation, and the conversations that take place within those domains are the primary means of teaching and learning." William F. Pinar (2004, p. 196) agrees with Arthur N. Applebee about curriculum as a conversation. However, for him, the curriculum is not only classroom discourse. "But by focusing on classroom conversation on state-mandated school subjects aligned, more or less, with post-elementary and secondary destinations, whether those be the workplace or the university, Applebee trivializes the concept of conversation and leaves undisturbed the official curriculum." A curricular conversation is always a multidimensional encounter constructed by the participants, but curriculum as a conversation to construct the subject school starts out of the classroom, and it is linked to the experiences lived by students and teachers. Only thus will the curriculum be considered as *Lebenswelt* [or 'Bildung]" (José A. Pacheco, 2009, p. 60).

its human pedagogical dimension through students and teachers as individuals, to which "each person brings to whatever is being studied his or her own prior knowledge, present circumstances, interest, and yes, disinterest"[38] but also within oneself,[39] so "like religious icons, academic subjects can provide passage to realities beyond the empirical present, realities past or future."[40]

In a non-homogenous educational context, the complicated conversation "differs according to time, place, circumstance and one's judgments concerning these,"[41] "from which the infinity of human experience becomes focused on the meaning of the moment."[42] In this regard, the concept of curriculum as a complicated conversation is crucial to interpret these new challenges. There is a general agreement that the main itinerary of a curriculum theory is to become more comprehensive and less technical, like more conversational and less prescriptive.

The curriculum as a personal and social project is always something to realize, not to implement, in the frame of our historically, socially, and culturally constructed subjectivity, the ground of the subject's experience. Nonetheless it is open to the circumstances and identities of oneself and others – the phenomenological and psychoanalytical ground. It is worth acknowledging, therefore, that the curriculum is a public and private human endeavor, engaging students, teachers, and parents too, in technologized terms in which the everyday life is reproduced on screen, maybe the human subsumption in interconnected technological devices as the Curriculum of Things through an intensive ideological interpellation. However, the otherness of this conversation is not-human in a technological encounter with humans – the *machinic assemblage* to Hardt and Negri.[43]

The post-human subject is now the new interlocutor, giving to the subject information embedded in commercial interests and offering data

38 William F. Pinar (2011, p. 2).

39 William F. Pinar (2004, p. 250), "Understanding the curriculum as conversation is a complex task for curriculum theorists and for teachers and students. The curriculum as conversational reality "occurs both intersubjectively *and* intrasubjectively, in rooms of our own."

40 William F. Pinar (2019, p. 53).

41 William F. Pinar (2109, p. 11).

42 William F. Pinar (2019, p. 378).

43 Michael Hardt and Antonio Negri (2017, p. 121).

knowledge.[44] The virtual with its uniqueness and individualization framed in an abstract universal does not mean a subjective reconstruction, just another cave since "the worldwide Web [is] a virtual cave generating its own unnatural light,"[45] that reinvents the present. The curriculum as a complicated conversation among self, society, history, and culture – the private and public ground of the curriculum study – is always an educational experience – a dialogical encounter according to Pinar[46] – between selves and others, teachers and students, integrating their subjective experiences of understanding the world, and incorporating subject's communication in political circumstances.[47]

It is a complicated conversation – a disciplinary conversation for Macdonald[48] – taking place within the lived spaces of the school and the classroom and in the virtual space (perhaps an informative conversation. It is complicated "precisely because it is haunted by the past, because it occurs in specific spaces, in singular and sedimented situations that, as teachers, we are always attempting to unravel and understand. No script, no skill set, no score or some sadic test, the curriculum cannot coincide with itself."[49]

The curriculum is a subjective and thoughtful conversation centered on knowledge and its forms of understanding of the subject in himself and in the world so that personal and social inclusion is not merely a rhetoric. The curriculum as a complicated conversation in searching critical knowledge is replaced by information, algorithmic knowledge, individualism, and surveilled participation when posited in the framework of the Internet. The new conversation as personal navigation does not include the reflection from students' feedback about their own experience offered in the spirit of an open exchange of formative ideas.

44 Michel Serres (2008, p. 104), "Knowledge gives. Quickly, abundantly. In the form of data, it becomes the given. Knowledge says. Quickly, abundantly. In the form of code, it replaces language."

45 William F. Pinar (2019, p. 387).

46 William F, Pinar (2004; 2011a; 2019).

47 William F. Pinar (2011a, p. 99) points out, "One engages oneself in complicated circumstances as well as with others."

48 James B. Macdonald (1995).

49 William F. Pinar (2011a, p. 141).

The curriculum goes to virtual

Why is a politics of presence on the curriculum a consensus on digital technologies? Indeed, because technology – the information and communication technologies – efficiently work into the engineered curricular practices, from its conception to its assessment, enabling standardization and uniformity, accentuating the subject's subjection to "technological necessity".[50] The digital necessity, concerned with the presence of the radically new, reflects the future imprinted in the present time as future in front not in back of us. In Pinar's words,[51] "because technology takes us from time, even time deemed as only historical, education, I suggest, becomes a passage from the present into a future not in front of but behind us."

Interconnectivity is the own room of the technologized subject, living into multiples technological devices, the Big Other to Žižek[52]. Increasingly digitalized and virtualized, the curriculum is moved online, creating control, surveillance, and ressignifying subjectivity:

> As technology ensures social conformity, it dissolves individuality. Avatars substitute for selves. Without internal subjective complexity, external multiplicity fades as material and moral challenge. Presumably, the site of freedom, the Internet and those devices that access it present news opportunities for violence, surveillance, and control.[53]

How does technology eclipse subjectivity if it is increasingly personalized?

For Pinar,[54] like the conformity consumer capitalism compels, "technology converts atomized individuals into instruments… of national will," that is, the curriculum standardized of school subjects, outcomes, and testing – or the state-regulated by market logic, wherein "subjectivity and sociality become technologically contracted"[55] and freedom, in the private sphere, "is recast as choice of consumer goods. In the public sphere it converts to control, the demand that freedom flourish so that whatever is profitable can be

50 William F. Pinar (2019, p. 8).

51 To William F. Pinar (2019, p. 53).

52 Slavoj Žižek (2012).

53 William F. Pinar (2019, p. 99).

54 William F. Pinar (2019, p. 142).

55 William F. Pinar (2019, p. 148).

pursued."[56] The subject is intertwined – the new abstract universality of network – but threatened by reducing knowledge to technological efficiency.

Digital technology becomes the center of education and curriculum, eroding subjectivity by the Internet of Things in which "the posthuman subject tends toward fusion with the virtual reality the device screens."[57] The human and posthuman living into the Curriculum of Things through artificial intelligence, a materialization of subjectivity endorsed by personalized and surveilled education. In an era of changing circumstances through technological innovation, the posthuman subject reverts the intelligible curriculum to digital data, fostering and threatening the subject – the present oxymoron of the Curriculum of Things – towards a passive subjectivation in the current way of internalization.

What internationalization is of most worth?

The politics of presence on curriculum intersects the subject, time, and place in what can be interconnected in a subjective dimension as well as temporal and geographic. The present is a physical, cultural, historical, and personal situation "already structured, in process, well underway, and within which one has perhaps unchosen obligations."[58]

Internationalization is not a space deemed to exist over others but a space based on an open conversation between the subjects and their local and national space, diverging globalization and worldly homogenization through the Internet of Things and its economic and cultural power. Internationalization, however, amplifies the space of this interchange conversation not restricted to political circumstances, acknowledging the individual and difference[59] and telling the truth, in Pinar's words:[60]

56 William F. Pinar (2019, p. 100).

57 William F. Pinar (2019, p. 333).

58 William F. Pinar (2019, p. 19).

59 William F. Pinar (2011a, p. 203) identifies three paradigmatic moments on Curriculum Studies, "The concept of *curriculum development* summarizes the first paradigmatic moment of US curriculum studies, a meaning and mission for the field reconceptualized during the 1970s to *understanding curriculum*. I have proposed *internationalization* as the third moment (see Pinar 2008), a movement toward a cosmopolitan reconstruction of an often self-absorbed and thereby provincial US field." See also Samuel F. Rocha (2020).

60 William F. Pinar (2022, p. 9).

> The internationalization of curriculum studies – democratic dialogue among scholars reporting curriculum research in their respective countries – requires a certain measure of academic freedom as truth-telling is the *sine qua non* of academic research, including in curriculum studies. Truth-telling is under siege.

Paraphrasing the complex formation of the curriculum studies' field, and recognizing the wholly renowned part Pinar has played in that field, is convenient to ask: What internationalization is of most worth? Although answers may be numerous, a perusal of Pinar's texts guides us to an approach for the meaning of internationalization and how distinct it is from globalization. From Pinar's count—he references internationalization: "Since 2000… I have initiated an anti-intellectual and organizational movement known as the internationalization of curriculum studies."[61]

Pinar's texts offer seminal ideas for reconfiguring a field earlier subjugated in the mid-1970s and early 1980s. Furthermore, now in current time, internationalization enables us to analyze certain adverse institutional conditions critically, namely "the governmental imposition of international agencies globalization agenda, the incessant demands for innovation and accountability, and the danger of intellectual manipulation through research funding priorities"[62] as well as the "efficiency, technology's driving principle."[63]

From this perspective, Pinar calls for a concept of curriculum as a bridge between the social and subjective in relationship between public and private and more recently among the national, regional, and global. For him, education is a political, psychosocial, fundamentally intellectual reconstruction of the self and society. His work on curriculum theory has "emphasized the significance of subjectivity to teaching, to study, to the process of education"[64]). He refuses reified political alternatives, influenced by new sociology of education related to Bernstein's and Young's ideas in the 1970s, profoundly embracing the primacy of individuality instead.

Knowing that historicity and subjectivity are two crossed references in the formation of curriculum studies, Pinar urges a genealogical study of

61 William F. Pinar (2009, p. 143).

62 William F. Pinar (2011b, p. 236).

63 William F. Pinar (2019, p. 146

64 William F. Pinar (2004, p. 79).

curriculum studies field in different countries, first in South Africa and Brazil and then in Mexico, the United States, and Canada. Such a study was not conducted – nor can its value be ascertained – by an external look. Instead, such value should be regarded as the recontextualization of curriculum studies field inside the scholars, especially "through the singularity of their subjectivities and life histories."[65] Acknowledging the national formation of curriculum studies fields as particular intellectual movements, he highlights one method: "to study such *formation*, I juxtaposed the scholar participant's life histories with their intellectual histories of the field and analyses of present circumstances, a strategy informed by *currere*, the lived experience of curriculum."[66]

Pinar has studied the intellectual histories and present circumstances of seven nationally distinct curriculum studies field[67] in searching of a complicated conversation. The book he edited with Anne Phelan concerning the curriculum field in the United States[68] does not share the same structure, although he explores the "present *Preoccupations*".

Still, the concept of internationalization, as explored by Pinar, is not bound by a homogeneous process since each country's present circumstances and intellectual histories are confined to certain historical moments and specific geographic places. Pinar attests to the worth of this worldwide but singular process in two editions the *International Handbook of Curriculum Research*.

Beyond being regarded as the intellectual father of internationalization, Pinar has been acknowledged as a leader in curriculum studies with a specific "*mode de penser*."[69] In a particular way, Pinar explores the several contributions to the curriculum studies' field—seven, that he could autobiographic approach that hat he has been practicing by addressing his personal life through the lens of subjectivity. The category of subjectivity is central in Pinar's curriculum work. Because it is highly symbolic, the curriculum study demands to be historically, socially, and subjectively situated

65 William F. Pinar (2011b, p. 3).

66 William F. Pinar (2011b, p. 4).

67 William F. Pinar (2010a, 2011b, 2011c, 2013, 2014b, 2015; Anne Phelan and William F. Pinar, 2023).

68 William F. Pinar (2013).

69 José A. Pacheco (2009).

in life story and self-formation[70] and researched through the *currere* method. At the same time, the curriculum is a complicated conversation with self and the others, an excavation of the life experiences that enable us to understand our historically, socially, and culturally constructed subjectivities. By this method of *currere*, the self "becomes mobilized for engaged pedagogical action – as a private-and public intellectual – with others in the social reconstruction of the public sphere."[71] At the international level, indeed, profoundly affected by the pandemic, as Pinar[72] acknowledges: "The internationalization of curriculum studies cannot but help but be affected by the pandemic in both its literal (medical) and metaphoric (military, economic, and political) senses."

The worldliness of a cosmopolitan curriculum

What is the theoretical room for cosmopolitanism?

First, there are many approaches from distinct fields of knowledge in human and social sciences, particularly from philosophy, sociology, law, and cultural studies and identities such as decolonial, racial, gendered, and queer studies.[73] According to Appiah[74], cosmopolitanism includes two intertwined strands – "obligations to others" (universal concern) and "the value of particular human lives" (respect for legitimate difference) – occurring both in a global/international/national/local space and in a multicultural dimension. In particular, cosmopolitanism is a "conversation between people different ways of life"[75] – and different ways of thinking – in which "we enter – weather with neighbors or with strangers – without a promise of final agreement."[76] The early cosmopolite notion is rooted in Kant's philosophy, whose presuppositions point to cosmopolitan law based on international law– cosmopolitan law "takes its place alongside state law and international law"[77] – acknowledged as an inherent personal

70 William F. Pinar (2005).

71 William F. Pinar (2004, p. 50).

72 William F. Pinar (2022, p. 11).

73 William F. Pinar (2019; 2011a, 2009; Ulrich Beck, 2015, 2006; Kwame A. Apiah, 2007).

74 Kwame A. Appiah (2006, p. xiii).

75 Kwame A. Appiah (2006, p. xiv).

76 Kwame A. Appiah (2006, p. 44).

77 Jürgen Habermas (1998a, p. 165), "The conclusion—"ending all wars"—is surprising. It points to the fact that the norms of international law that regulate war and peace are only provisionally valid, that is, they are valid only until the process of legal pacification for which Kant prepares the ground

right and as a condition for perpetual peace. It embraces the political and moral reason of living together in the national and international space, expressing the people more than the subject itself. Cosmopolitanism becomes internationalization.

When theorizing about internationalization, Pinar advances the worldliness of a cosmopolitan curriculum as the primacy of the particular, cultivating "comprehension of alterity, including that self-knowledge that enables understanding of others."[78] The cosmopolitan curriculum "implies that general education is more than an introduction to great works, the memorization of essential knowledge, or a sampling of the primary disciplinary categories (three units in social science, three in natural science, etc.)."[79] He acknowledges the personification of the individual: "understanding the subjectivity of the internationalization of curriculum studies accompanies my efforts to understand the field's intellectual history and present circumstances, as the individual personifies that history and those circumstances."[80]

In this sense, to Pinar,[81] internationalization of curriculum studies contributes to a cosmopolitanism curriculum, the presence of "Self-understanding toward dialogical encounter with difference" – an openness or particularism as the ground of multiculturalism, recognizing internationalism and nationality simultaneously.[82] Following Kant's thought, cosmopolitanism is both an aim and a condition to perpetual peace, wherein "the tolerance

with his work "Perpetual Peace" has brought about a cosmopolitan order and thereby abolished war. It points to the fact that the norms of international law that regulate war and peace are only provisionally valid, that is, they are valid only until the process of legal pacification for which Kant prepares the ground with his work "Perpetual Peace" has brought about a cosmopolitan order and thereby abolished war." Kenneth Baynes (2017, p. 519) says, "contrary to other critics, it is at least clear that Habermas' s model of a "cosmopolitan condition" is by no means simply an abdication to neoliberalism but an attempt to challenge it through proposals for a "realistic utopia."

78 William F. Pinar (2009, p. 7).

79 William F. Pinar (2009, p. 8).

80 William F. Pinar (2010a, p. 5).

81 William F. Pinar (2011a, p. 174).

82 William F. Pinar (2011a, p. 51), "It is not obvious why cosmopolitanism and multiculturalism imply the end of nationalism … While I am disinclined to endorse a developmental model, I do reject any assumption of an intrinsic antagonism between nationalism and cosmopolitanism." To James Bohman and Matthias Bachmann (1997, p. 7), interpreting the Kant's cosmopolitan ideal, "national sovereignty is,therefore, a central issue in thinking about cosmopolitanism: it suggests an order that is not simply imposed from a center and yet one that is based on the rule of law." Following a sociologic perspective, Ulrich Beck uses the notion of banal cosmopolitanism: "I think banal cosmopolitanism is hollowing out the everyday experience of nationalism and filling us instead with the experience of globality, even if our conscious recognition is still lagging behind." (Ulrich Beck and Johannes Willms, 2004, p.37). In another text, Ulrich Beck (2006, p. 49)

of ineliminable human diversity is in fact a consequence of cosmopolitan peace, rather than a natural cause of conflict."[83]

According to Kantian's ideas, public law is about the conditions of universal hospitality through political, personal, and cosmopolitan rights, respectively the internal, external, and individual condition for a national and international understanding based on universal order. The cosmopolitan order is the condition for perpetual peace and cosmopolitan right. Although perpetual peace is a utopia, cosmopolitan right is a continuous purpose, even from "processes of globalization [that] have rendered complex societies, with their delicate technological infrastructures, ever more vulnerable"[84] and his idea "is therefore not fantastical or overstrained; it is a necessary complement to the unwritten code of political and international right, transforming it into a universal right of humanity."[85]

In Kant's theory, cosmopolitanism is a praxis of citizenship in which the subject becomes a world citizen. Thus, there are levels of cosmopolitan interdependence in which the concept of cultural alterity can integrate universalism, nationalism, and multiculturalism as the space of global, social, and individual responsibility, according to Beck[86], to whom cosmopolitanism reveals "the human condition of the unchangeable impossibility of exclusion from the culturally other." It is not the concrete other but the universalized other, eschewing the danger of individuality, so for this sociologist "postmodern discourse is misleading, if not false."[87]

Cosmopolitan political identities are both the experience of everyday life[88] and globality in the context of a deterritorialized culture centered on a logic of inclusive differentiation.[89] The cosmopolitan experience – or the "banal

writes that "Cosmopolitan realism does not negate nationalism but presupposes it and transforms it into a cosmopolitan nationalism."

83 Rorty Oksenberg and Ames Schmidt (2009, p. 6).

84 Jürgen Habermas (1998a, p. 174).

85 Jürgen Habermas (1998a, p. 176).

86 Ulrick Beck (2015, p. 114).

87 Ulrick Beck (2015, p. 400).

88 Ulrick Beck (2006, p. 23), "The everyday experience of cosmopolitan interdependence is not a love affair of everyone with everyone. It arises in a climate of heightened global threats, which create an unavoidable pressure to cooperate… This is the case when recognition of the scale of the common threats leads to cosmopolitan norms and agreements, and hence to an institutionalized cosmopolitanism."

89 Ulrich Beck (2006).

cosmopolitanism"[90] – has its political and cultural identities connected with the recognition of difference rooted in local and global contexts, affiliated to the experience of globality and of provincialism, so that "cosmopolitanism without provincialism is empty, provincialism without cosmopolitanism is blind."[91]

Based on personal and international relations, cosmopolitanism involves, however, the attitudinal understanding of each one subject immersed in each other subject, fostering subjectivity, difference, and particularity in a shared outlook as the place of the human rights, the very "building block of a cosmopolitan society,"[92] oriented towards "realistic cosmopolitanism that "should not be understood and developed in opposition to universalism, relativism, nationalism, and ethnicism, but as their summation or synthesis."[93] The category of human rights[94] becomes dominant in transnational and global spheres, demanding an individual identity within a public identity. In this sense, the subject's cosmopolitan consciousness is the place of self-consciousness and social integration. However, what is a cosmopolitan curriculum?

To Pinar[95], as a cosmopolitan conversation, curriculum "occurs in the world, not in some split-sphere of (postmodern) abstraction where self-righteousness gets smuggled in, passing for cultural critique and ethical judgment," encouraging the ongoing understanding of always subject's changing and different experience life, and strewing as decentred openness to worldliness reality:

> Subjectivity strewn as decentred (but not compulsive) openness to reality is worldliness, not willfulness. One studies – not only sculpts - the future, by becoming historical: reactivating the past, declining to coincide with the present, enabling another future (than the one in

90 Ulrich Beck (2006, p. 10), "*Banal cosmopolitanism* is manifested in concrete, everyday ways by the fact that differentiations between us and them are becoming confused, both at the national and at international level. The modest, familiar, local, circumscribed and stable, our protective shell is becoming the playground of universal experiences."

91 Ulrich Beck (2006, p. 7).

92 Shoshana Zuboff (2019, p, 14) uses critical human rights to understand people's sovereignty best.

93 Ulrich Beck (2006, p. 57).

94 Ulrich Beck and Johannes Willms (2004, p.88), "it will be cosmopolitan and not abstractly universal, covering with equal weight rights and duties, wherein holders of rights are not only human beings and human communities, but also nature as a non-human life of the planet."

95 William F. Pinar (2011a, p. 20).

> front of us) to unfold. For me, these are the subjective moments of a cosmopolitan curriculum.[96]

Of course, one of the moments of a cosmopolitan curriculum is the relationship between the primacy of the subject and the primacy of the universal other from human rights, but to Pinar, "world citizenship is to be subjectively cultivated, locally, including through national identification;"[97] "cosmopolitanism may well imply world citizenship, but it also invites the intimacy, even the turbulence, of embodied particular relationships, including with oneself."[98]

The primacy of the western multicultural context carries into the curriculum ahistorical presentism, bringing not only more cultural convergence than cultural hybridization[99] but also more "abstract universal qualities, risking cultural homogeneity and pedagogical authoritarianism" than experiencing injustice.[100] In those relationships, a cosmopolitan curriculum is always a "subjective reconstruction" of a lived experience open to difference, diversity, and alterity "through academic study."[101] The cosmopolitan curriculum is a praxis of acceptance of difference in its "subjective personification"[102] and of "intellectual independence in democratic life."[103]

Subjectivity becomes crucial for the cosmopolitan curriculum centered on subjective planetary consciousness connected to *sanitary measures* – more visible from the pandemic - and climate change – deeply present in our time of individualistic globalization. It is an intellectual endeavor for the

96 William F. Pinar (2019, p. 174).

97 William F. Pinar (2011a, p. 57).

98 William F. Pinar (2011a, p. 59).

99 To George Ritzer (2007, p. 13), "Hybridization is a very positive, even romantic, view of globalization as a profoundly creative process out of which emerges new cultural realities and continuing, if not increasing, heterogeneity in many different global locales."

100 William F. Pinar (2011a, p. 57), "a cosmopolitan education would stress the simultaneity of (1) extricating ourselves from the racist past, (2) as we labor to understand the opaque present, thereby, (3) acting as midwives to the future. To find the future, I emphasize, requires reactivating the past. For the cosmopolitan, the multicultural future looks quite different from the present, in which the acknowledgment of cultural difference is too often a call to arms, a self-promoting particularism presumably avenging past injury by claiming victimhood and "martyrology."

101 William F. Pinar (2011a, p. 151).

102 William F. Pinar (2011a, p. 200).

103 William F. Pinar (2011a, p. 200).

subjective experience of a citizenship praxis through the human understanding of historical moments. That is the most valuable knowledge today.

The curriculum citizenship

The canonical curricular question – What knowledge is of most worth? – is "both a personal and public question, thereby a metaphorical one, a matter of revelation and attunement as well as reasoned deliberation. Conceived in this manner, curriculum can be converted from idol to icon."[104] Being a subjective reconstruction, the private sphere rooted in subjectivity, the curriculum is an icon representing knowledge as subjective, searching for a culturally shared intelligibility inhabiting the public sphere. It is subjective on time, space, and agency, as well as on autonomy, endorsing the individual consciousness immersed in the public consciousness through "ethical engagement with others."[105]

Being the most influential of Habermas' signature concepts, according to Fraser,[106] "the public sphere designates a discursive arena in modern societies where "private persons" discuss matters of common concern." Connected to a historical register,[107] the public sphere[108] signifies democratization and openness to public opinions, such as civil society and its communicative structures centered on influential opinions, becoming "a space for legitimizing knowledge," as Pestre puts it[109]. Additionally, the critical-normative register includes "forms of experience – structures of feeling, modes of perception, evaluative dispositions."[110] Distinguishing itself from state and the market, the community is a symbolic space merging iconic words, for example, solidarity, identity, participation, integration, ethics, and

104 William F. Pinar, 2019, pp. 229-230).

105 William F. Pinar, 2019, p. 324).

106 Nancy Fraser (2017, p. 245).

107 The historical-empirical and critical-normative registers are used by Nancy Fraser (2017).

108 Michel Foucault (2010, p. 37), "When Kant distinguishes between what is private and what is public he is not in any way, or not mainly, setting his sights on two domains of activity, one which would be public for certain reasons, and the other which would be private for opposite reasons. The characterization "private" is not applied to a domain of things but to a use, precisely to a use of our own faculties. And what he calls "public" is less a precise domain of things or activities than a certain way of putting to work and using our own faculties."

109 Dominique Pestre (2013, p. 37).

110 Nancy Fraser (2017, p. 248).

intersujectivity,[111] to reveal what is citizenship in its democratic ideal, crossing irreconcilable desires, one the desire for self-creation and autonomy and another the desire for community.[112]

Polis or community or public square – the intertwined and flagged politics of presence – involves the Foucaultian[113] discussion centered on the government of self and others and the subject's rights. The government of self and others is the private and public use of reason to understand "a choice of different ways of life" into the square, in which "we constitute ourselves as a universal subject when as rational beings we address all other rational beings."[114]

Another discussion lies in the subjective interest[115] as "a subject of individual choices which are both irreducible and non-transferable"[116] and constituted "as a form of both immediately and absolutely subjective will"[117] that differs from the subject of right, from which derive natural and contractual/juridical rights. The same logic does not govern both subjects because the subject of interest maintains his subjective choice, and "the subject of right is, by definition, a subject who accepts negativity, who agrees to a self-renunciation and splits himself,"[118] that is to say,

> the subject of interest constantly overflows the subject of right. He is therefore irreducible to the subject of right. He is therefore irreducible to the subject of right. He is not absorbed by him. He overflows him, surrounds him, and is the permanent condition of him

111 Following Habermas' s concept, Ciaran Cronin and Pablo De Greiff (1998, p. xix) briefly say, "personal identity has an irreducibly intersubjective basis because the acquisition and maintenance of a sense of self depend upon the structures of reciprocity and recognition that are built into the presuppositions of communicative action. If identities are always articulated in and through processes of socialization, then protecting the identities of individuals necessarily implies protecting the contexts of interaction in which they define who they are." In this sense, subjectivity implies normative rules for the socialization of the subject.

112 Chantal Mouffe (1998, p.3) writes about "Rorty' s assertion that there is no way to unite or reconcile the public and private domains and that we must come to terms with the fact that we have two irreconcilable final vocabularies: one where the desire for self-creation and autonomy dominates, and another one where what dominates is the desire for community."

113 See Michel Foucault (2010, p. 75, p. 307).

114 Michel Foucault (2010, p. 36).

115Michel Foucault (2008, p. 232).

116 Michel Foucault (2008, p. 272).

117 Michel Foucault (2008, p. 273).

118 Michel Foucault (2008, p. 275).

> functioning. So, interest constitutes something irreducible in relation to the juridical will.[119]

Citizenship brings to school curriculum the Heidegger's concept of being there (Dasein) or the presence which opacity "is not solely and primarily rooted in *egocentric* self-deception, but also in lack of knowledge about the world."[120] Conversely, its visibility points to a knowledge about the world-oriented self-understanding of shared values, beliefs, attitudes, and worldly commitments. Following the Deleuzian notion of the sign, Žižek[121] takes into account the notion of a problem as a specific horizon in which "the problem is universal and the solutions or answers are particular." He says: "A problem is thus not only *subjective*, not just epistemological, a problem for the subject who tries to solve it; it is *stricto sensu* ontological, inscribed into the thing itself: the structure of reality is problematic."[122] This problematicity signifies openness to all complex reality inscribed in each condition wherein the answer is always a question to be shared.

A curriculum without education for citizenship, or civic education, is a temporal matrix of contents historically organized in disciplines centered on technical knowledge. To Adorno,[123] "the premier demand upon all education is that Auschwitz not happen again." Never again Auschwitz means never again barbarism, and for a civic education connected with the problems of our time, "the only education that has any sense at all is an education toward critical self-reflection."[124]

In this sense, civic education implies a widely vision of what values and problems contribute to a critical discussion of our present time merged by past and future through a subjective dimension and not an individualistic realm. The commercial spirit continuously captures the individual – firstly the free enterprise and nowadays the technological connection – in which "individuality [is] most completely subordinated to self-preserving reason. In that era, the idea of individuality seemed to shake itself loose from

119 Michel Foucault (2008, p. 274).

120 See Martin Heidegger (2003d, p. 240).

121 Slavoj Žižek (2012, p. 214).

122 Slavoj Žižek (2012, p. 215).

123 In the text "Education After Auschwitz," Theodor W. Adorno (2005, p. 191) includes civic education to deal with all forms of totalitarianism.

124 Theodor W. Adorno (2005, p. 193).

metaphysical trappings and to become merely a synthesis of the individual's material interests."[125]

As Horkheimer argues, "the decline of the individual must be charged not to the technical achievements of man or even to man himself – people are usually much better than what they think or say or do – but rather to the present structure and content of the 'objective mind/ the spirit that pervades social life in all its branches."[126] This objective mind flourishes through data colonialism in the context of algorithmic power,[127] that is, more and more connectivity, datafication, and personalization of the digital subject. The citizenship curriculum is, in fact, considerably more complicated than the disciplinary curriculum, becoming not only the intersection of private and public spheres but the self-understanding of a world, 'intersubjectively shared' in "experiences, practices, and forms of life [that], brings an ethical knowledge to which we do not have access simply through the epistemic authority of the first person singular."[128] It is a consciousness bringing to the subject and its ways of knowing something more than empirical knowledge and practical knowledge, in Habermas' idea, concretely, a reflexively and critically achieved insight. From this viewpoint, citizenship is a moral interwoven intersubjectivity based on a reflexive form of communicative action from "the private and public autonomy of citizens *mutually* presuppose each other."[129]

The other curriculum, not STEM and education to profit, includes education for a more inclusive type of citizenship wherein imagination, creativity, and critical thought are predominant.[130] Accordingly, we need to think about education for democratic citizenship centered not essentially on economic growth but in a human development paradigm because education is for people, and citizenship has its own room in the local, national, and global dimensions. A critical curriculum linked to the world knowledge requires an intelligent world citizenship from which "young people must gradually come to understand both the differences that make understanding difficult between groups and nations, and the shared human needs and interests

125 Max Horkheimer (2004, p. 94).

126 Max Horkheimer (2004, p. 104).

127 Nick Couldry and Ulisses A. Mejias (2019).

128 Jürgen Habermas (1998b, p. 25).

129 Jürgen Habermas (1998b, p. 75).

130 Martha C. Nussbaum (2010).

that make understanding essential if common problems are to be solved."[131] Only an education to a "globally minded citizenry" and from its inner eyes "will bring students in contact with issues of gender, race, ethnicity, and cross-cultural experience and understanding."[132]

The concept of community underlies what is common not in its collective power but its shared openness, according to Heidegger's terms of "being-in-the-world" as "being-with", "being one's self," and "they."[133] Subjectivity – the constant question of the "who,"[134] – embodies a becoming inclusive identity based on common concepts (the one's and they's concepts[135]), such as freedom, fraternity, solidarity, tolerance, justice, and equality.

Community is the people's sovereignty embedded in politically, culturally and socially subjectived ways of thinking and acting, increasingly fostered by globalization. Besides its other homogeneous face, "globalization, however, is also the creation of new circuits of cooperation and collaboration that stretch across nations and continents and allow an unlimited number of encounters."[136] This second face of globalization, Hardt and Antonio Negri add, "is not a manner of everyone in the world becoming the same; rather, it provides the possibility that, while remaining different, we discover the commonality that enables us to communicate and act together."[137] What is the common?

Hardt and Negri use the multitude concept to refer to "the open and expansive network in which differences can be expressed freely and equally, a network that provides the means of encounter so that we can work and

131 Martha C. Nussbaum (2010, p. 81).

132 Martha C. Nussbaum (2010, p. 108).

133 Martin Heidegger (2001, p. 146, "The structures of Being which belong to Dasein, together with the phenomenon which provides the answer to this question of the *who*, are ways of its Being."

134 Martin Heidegger (2001, p. 147), "The question of the *who* answers itself in terms of the *I* itself, the *subject*, the *Self*. The *who* is what maintains itself as something identical throughout changes in its Experiences and ways of behaviour, and which relates itself to this changing multiplicity in so doing."

135 Martin Heidegger (2001, p. 165), "the *they*, which is nothing definite, and which all are, though not as the sum, prescribes the kind of Being of everydayness;" "Distantiality, averageness, and leveling down, as ways of Being for the *they*, constitute what we know as 'publicness' ["die Offentlichkeit"] (p. 166).

136 Michael Hardt and Antonio Negri (2004, p, xiii).

137 Michael Hardt and Antonio Negri (2004, p, xiii).

live in common."[138] It embraces the multiplicity of all singular differences[139] and criticizes digital subjectivity under surveillance capitalism[140] and data colonialism.[141] The public means different things: uniformity and diversity, as inferred from neoconservative citizenship or democratic citizenship projects representing totalitarian or democratic values.

One of those neoconservatives is related to the politics of fascism by its 'public face of pro-fascist sentiment' and far-right nationalism determined by historical conditions and dehumanizing segments of the population (immigrants, refugees, undocumented workers, and sexual differentiation groups), as Stanley[142] argues. This old and new fascist politics, reemerging against democratic and inclusive politics, "includes many distinct strategies: the mythic past, propaganda, anti-intellectualism, unreality, hierarchy, victimhood, law and order, sexual anxiety, appeal to the heartland, and a dismantling of public welfare and unity."[143]

Just as a world divided between them and us, fascism is not only a totalitarian project of the overpowering human condition[144]; it is also a portable ideological concept: "it travels across space and time and is useful in analyzing places where fascist movements failed as well as places where fascist regimes were established;"[145]it is yet an emotional feeling of a functionally aesthetic in order to suppress individuality and universal rights and to idolatrize violence into digital technologies, Internet, and social media, nowadays. Only inclusive citizenship makes room for understanding the participation of all subjects as worldly citizens within a community

138 Michael Hardt and Antonio Negri (2004, pp, xiii-xiv).

139 Michael Hardt and Antonio Negri (2004, pp, xiv), "The multitude is composed of innumerable internal differences that can never be reduced to a unity or a single identity-different cultures, races, ethnicities, genders, and sexual orientations; different forms of labor; different ways of living; different views of the world; and different desires. The multitude is a multiplicity of all these singular differences.

140 Shoshana Zuboff (2019).

141 Nick Couldry and Ulisses A. Mejias (2019).

142 Jason Stanly (2018, pp. 8-9).

143 Jason Stanly (2018, p. 9).

144 In Hannah Arendt's words (1973, p. ix), "Antisemitism (not merely the hatred of Jews), imperialism (not merely conquest), totalitarianism (not merely dictatorship}-one after the other, one more brutally than the other, have demonstrated that human dignity needs a new guarantee which can be found only in a new political principle, in a new law on earth, whose validity this time must comprehend the whole of humanity while its power must remain strictly limited, rooted in and controlled by newly defined territorial entities."

145 Julia A. Thomas (2020, p. 6).

recognized by its intrinsically practice of difference. It is the multicultural curriculum with its emancipatory politics of presence, lived experience practices, and humanistic tradition.

Public subjectived values and problems constitute the utter orientation to a citizenship curriculum, no longer defined as universality but as subjective reconstruction, converting difference into an educational experience. To Pinar, "for the curriculum, not only one's worldly identity but also academic knowledge itself seems somehow reflective of 'larger' – not exclusively empirical – realities."[146] Hence, "ethics, not economic gain or political power, structures one's resolve to remain in study,"[147] including the assertion of the subject's autonomy.

The communitarian approach as the center of a citizenship curriculum reinforces the polis paradigm – the political subject – and processes of subjectification[148] concerning oneself beyond power and knowledge[149] – the ethical subject. Citizenship is simultaneously a political and an ethic project substantially assumed as a subjective experience of living together in a multicultural world, requiring increasingly digital citizenship. Because we cannot reduce human experience to epiphenomena of economy, or social class, or culture, Grumet[150] argues "for the humanities' traditions of history and literature, and some philosophies, that acknowledge that we live in a world of meanings that we have constructed, ideas and relationships that are sustained, questioned and transformed by our own thoughts, actions, and relationships with others."

What constitutes the school curriculum as subjective experience is autonomy from which the *I* emerges from autobiographical experience, reinforced by literature, and converted into *Us* by history. The experience of the curriculum is always a matter of knowledge in its interconnected typologies, although critical knowledge – and also ethical and reflective knowledge - is the ground of a self-identity oriented to autonomy. Nevertheless, self-identity is thought from an individual and worldly human experience, becoming

146 William F. Pinar (2019, p. 338).

147 William F. Pinar (2019, p. 364).

148 Gilles Deleuze (1995, p. 115), "Subjectification as a process is personal or collective individuation, individuation one by one or group by group."

149 Michel Foucault (2010).

150 Madeleine N. Grumet (2017, pp. 78-79).

the curriculum a lived experience of personal identity (the private sphere) subsumed in a given context (the public sphere).

The world autonomy designates "one's choice to feel, to reason and to will for oneself"[151] through an interior dialogue occurring "on the same level as the dialogue that unfolds outside, the internal plurality is similar to what which surround us."[152] Accordingly, autonomy as a human condition to live in truth means "action that finds its source in the subject himself"[153] but "does not force each individual to isolate himself and cut himself off from other men."[154] Moreover, the three humanistic values – "autonomy of the I, finality of the You, universality of the They"[155] – have not always been admitted or found together, as Todorov says, because they define active humanism in which *You* and *They* are "the ultimate goals of our actions."[156]

The experienced curriculum related to knowledge is then the site for a discussion of subject's autonomy humanely constructed and mainly based on human understanding – the shifting paradigm of curriculum studies distinctly from the traditional or technical paradigm ("instrumentalist, rationalist, positivist paradigm in social science"[157]). Such individual autonomy reinforces the student's and teacher's agency to realize curriculum as a complicated conversation in which pedagogical relation is more as world understanding than testing learning outcomes.

From an emancipatory consciousness,[158] the curriculum study reaches a subjective expression of what students and teachers can educationally do in the school's context, excavating their autonomy through a complicatedly, cosmopolitanly, and citizenry conversation. The curriculum is a matter of concern for an intercultural pedagogy, which consists in creating individual and collective subjectivities.

151 Tzvetan Todorov (2002, p. 47).

152 Tzvetan Todorov (2002, p. 140).

153 Tzvetan Todorov (2002, p. 47).

154 Tzvetan Todorov (2002, p. 139).

155 Tzvetan Todorov (2002, p. 40).

156 Tzvetan Todorov (2002, p. 32).

157 William M. Reynolds and Julie A. Weber (2016, p. 3).

158 Theodor W. Adorno (2005).

Indeed, the biggest challenge is how to subjectively connect the private and public subject with his own identity and global responsibility[159] in a wide sense of justice. This reciprocity – between the private and public spheres – is intrinsically embedded in curriculum knowledge of most worth. Teacher and learning are not the questions of the experienced curriculum but study, as I argue, in Chapter 5, as a way to reset the subjective curriculum.

159 Such as the Declaration on the Right and Responsibility of Individuals, Groups, and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms (UN, 1988). https://www.ohchr.org/en/ProfessionalInterest/Pages/RightAndResponsibility.aspx

Chapter 5 – Study: The subjective Curriculum reset

It could be a welcomed opportunity to study slowly, to contemplate, to question.[1]

1 William F. Pinar (2019, p. xi).

Study: reinvented imaginaries

What makes up the "raison d'être" of education and forms of study in different social imaginaries?

Teaching – and learning – "limits study to what is taught, it performs the dirty work of accountability, that cover for the closure of academic-intellectual-freedom in contemporary classrooms."[2] Study as self-formation is then the purpose of subjective understanding from "the regressive and progressive movement brought into conversation to analyze the present moment comprises the framework of *currere* through which, in the synthetic moment, self-study becomes reconstructed as public service."[3]

Study is not teaching, neither learning, but rather a pedagogical way of understanding the world through formal and informal education. As a self-realization[4] study, it is a disquieting reflection upon personal and historical circumstances leading to distinct forms of learning in several teaching contexts, while teaching as guidance "is not external imposition. *It is freeing the life-process for its own most adequate fulfillment,*"[5] especially "thinking for oneself,"[6] well expressed in the Bartlebly' sentence *I would prefer not to*.[7]

An ideal of society embraces social and personal forms of understanding the world through knowledge, power, and subjectivation, three articulated elements of what Foucault calls *focal point of experience*: "forms of a possible

2 William F. Pinar (2012, quoted in Madeleine R. Grumet, 2017, p. 85), "Study acknowledges academic knowledge as important *for its own sake*, even as it also encourages the articulations of its educational significance" (italics added for emphasis). Study requires an immersion in text, wide-ranging texts across time, place, and discipline, in order to dislodge the present moment as a means to gain perspective on it. Study requires that we step out of ourselves through entering the past and imagining the future. Study requires us to generate questions, take standpoints (even though temporary), ask "What if ?" and imagine ourselves in the lives of others, all of which are central to the agency and understanding of subjectivity."

3 William F. Pinar (2012, p. 47, cited in Madeleine R. Grumet, 2017, p. 86).

4 John Dewey (1990, p. 187), The study based on the subject matter "has become a synonym for what is irksome, and a lesson with a task". In a study as self-realization, "the child is the starting point, the center, and the end."

5 John Dewey (1990, p. 195).

6 Immanuel Kant, quoted in Samuel Fleischacker (2013, p. 23), "To establish enlightenment in individual subjects through education is therefore very easy; one needs only to begin early, so as to accustom young minds to this reflection. To enlighten an entire age takes a very long time, however, since there are many external obstacles that either prohibit this type of education or make difficulties for it."

7 Herman Melville (1853/2005).

knowledge, normative frameworks of behavior, and potential modes of existence for possible subject."[8] Such a theoretical-conceptual framework introduces not only the complicated relations among truth, governmentality and subject but the question of the government of self, and others;[9] It also strengthens the subjective character of the social imaginary individually and publically experienced to study how the past was and how the present and future might be. Therefore, the imaginary provides one locus to understand the complexity of human being,[10] facing time, place, and subjectivity. More than a detailed vision of social order, the social imaginary[11] brings to conceptual discussion "the product of specifically political acts of imagination because they act as powerful aspirational and normative visions of preferred forms of social order."[12]

It confronts the multiples political acts of imagination embedded in ethically, culturally, economically, and ideologically lived experiences, from which private and public subjects build their conceptions of self-and-others-understanding, as well as imagine the intrinsic relationship between what is the *moral order* and what can be the *moral agency*, to use Taylor's terms. Broadly, social imaginary is referred to as "the ways people imagine their social existence, how they fit together with others, how things go on between them and their fellows, the expectations that are normally met, and the deeper normative notions and images that underlie these

8 Michel Foucault (2010, p. 3).

9 Michel Foucault (2010, p. 42), "I would like to try to see how truth-telling (dire-vrai), the obligation and possibility of telling the truth in procedures of government can show how the individual is constituted as subject in the relationship to self and the relationship to others."

10 Paul James (2019, p. 37), In everyday use, "the concept of the imaginary came to refer to something invented or not real, something projected into the future, imagined beyond itself. However, for many writers from philosophers to psychoanalysts (including for the present author), even this imaginary projection of invented possibilities has to have a place to stand, a place from which to project imaginations. We do not imagine out of nothing. And, therefore, the imaginary provides one locus to begin to understand the complexity of human being."

11 John O'Neill (2019, p. 1), "The term *modern social imaginary* was coined by the Canadian hermeneutic philosopher Charles Taylor (2004). Taylor analyses the way in which western societies have both imagined and attempted to realise themselves according to popular conceptions of their moral purpose and moral order. He does this according to three modes of imagination and realisation: the economy, the public sphere, and self-governance;" "Taylor's social imaginary has elements of both moral structure (what is right) and moral agency (what is worth striving for)" (p. 2). Whether Charles Taylor (2004) uses much more concepts as image, story, and legend, Manfred Steger (2008) – the other pivotal conceptual contribution to the concept of social imaginary – works his ideas from political ideologies.

12 Williamson (2017, p. 16). The author uses these words to define sociotechnical imaginaries.

expectations."[13] What are the dominant educational imaginaries and curricular ideologies?

In modern and contemporaneity ages,[14] that search for the meaning of the spirit of the times[15] on education and curriculum, educational perspectives have reflected ideas, ideologies, and imaginaries captured by dynamic practices through theoretical frameworks, governmentality processes, and modes of subjectivation in dominance at the level of ontologies – "this level names categories of existence or being-in-the-world, historically constituted through the structures of human interrelations: temporality, spatiality, corporeality, epistemology and so on."[16]

Two main educational ontologies might be called the modern ontological formation[17] and the global ontological formation, in which might be identified different curricular ideologies, namely i) the academic-rationalist curriculum and the humanistic curriculum in a disciplinary imaginary, ii) the accountable curriculum in a pragmatic-neoliberal imaginary, and iii) the algorithmic curriculum in a sociotechnical imaginary. Each of them is grounded in distinct and complementary ideologies (such as conceptions and orientations) and on distinct and complementary ideologies because their logics are like tectonic plates, sliding over each other but sometimes colliding. The modern ontological formation on education is grounded in philosophy linked to reason primacy of eighteenth-century wherein enlightenment, according to Kantian's thinking, is "man's way out from his self-incurred tutelage (minorité),"[18] representing both forms of possibilities of

13 Charles Taylor (2004, p.24). He adds: "There are important differences between social imaginary and social theory. I adopt the term imaginary (i) because my focus is on the way ordinary people "imagine" their social surroundings, and this is often not expressed in theoretical terms but is carried in images, stories, and legends. It is also the case that (ii) theory is often the possession of a small minority, whereas what is interesting in the social imaginary is that it is shared by large groups of people, if not the whole society. Which leads to a third difference: (iii) the social imaginary is that common understanding that makes possible common practices and a widely shared sense of legitimacy."

14 Lutz Koepnick (2014, p. 5), "To be contemporary… does not simply result from a dual rejection of modernism and postmodernism. It instead describes a peculiar relationship to an ever changing present in which proximity and distance, immersion and critique, the sensory and the cognitive go hand in hand."

15 Paul James (2019, p. 35), "What is the relationship between a social imaginary and an ontological formation such as modernity (that treats concepts such as *spirit of the times* as largely immanent notions made by social practice)?"

16 Paul James (2019, p. 43).

17 Charles Taylor (2004) and Paul James (2019).

18 Michel Foucault (2010, p. 26).

autonomy to oneself, and authority of knowledge[19] – the universal knowledge[20] or the powerful knowledge.[21]

In a disciplinary imaginary, the academic-rationalist ideology of curriculum[22] emerges from the classical visions of education, most of them related to Plato and Socrates, and in *Trivium* and *Quadrivium* (matter disciplines) to the schooling compulsory through policies at national level – nineteenth century in Western countries – and is strengthened to develop the "ability to think" which means a filled mind with contents,[23] demanding a pedagogical technical developed from the metaphor of the mind as a muscle. Hence, "routinization, memorization, and recitation characterized the classical curriculum for mental discipline."[24]

It is also prevailing a humanistic curriculum orientation related to "the guardians of an ancient tradition tied to power of reason and the finest elements of the Western cultural heritage"[25] infused with "romantic ideas about childhood" and arguments advanced by social meliorists "to put education at the center of any movement toward a just society."[26] However, in the dominant curriculum ideology and disciplinary imaginary, in their institutional support, a system of exclusion flourishes: "it is both reinforced and renewed by whole strata of practices, such as pedagogy, of course" – the study of books and canonic texts, emerging library as the space of knowledge order – "but it is also renewed, no doubt more profoundly, by the way in which knowledge is put to work, valorized, and a sense distributed, in a society."[27]

Transformed in disciplines[28], following a scientific matrix, school knowledge belongs to "societies of discourse, which function to preserve or produce discourses, but in order to make circulate them in a closed space,

19 Michel Foucault (2010, p. 20).

20 Dominique Pestre (2013).

21 Micahel Young (2013).

22 The intellectual-rationalist conception (Greek/Roman/medieval) to James McKernan (2008, p. 27).

23 Herbert M. Kliebard (1995, p. 5).

24 William F. Pinar, William F. Reynolds, Patrick Slattery and Peter M. Taubman (1992, p. 105).

25 Herbert M. Kliebard (1995, p. 23).

26 Herbert M. Kliebard (1995, p. 23).

27 Michel Foucault, 1981, p. 55).

28 Michel Foucault (1981, p. 61), "The discipline is a principle of control over the production of discourse. The discipline fixes limits for discourse by the action of an identity which takes the form

distributing them only according to strict rules."[29] The coercive study of the knowledge transmitted in its academic order has undoubtedly been a significant pedagogical image. As an individual and social appropriation of discourses, education, as a structured way of subjectivation, "is a political way of maintaining or modifying the appropriation of discourses, along with the knowledges and powers which they carry."[30] Foucault asks: "What, after all, is an education system, other than a ritualization of speech, a qualification of a doctrinal group, however diffuse, a distribution and an appropriation of discourses with its powers and knowledges?"[31]

In this sense, education is a structured way of subjectivation through both prescriptive curriculum discourses and a mass compulsory schooling system because subjects, paraphrasing Kant,[32] need education by teaching or instruction. Study runs framed on instrumental rationality – both Tyler's rationale[33] based on objectives, contents, activities, and assessment, and Bruner's instruction normative theory[34] – and centered on technical-behavioral[35] principles for teaching and learning. Since the early twenty-century, efficiency "became the overwhelming criterion of success in curriculum matters."[36] The social efficiency educators was furthered by educational and pedagogical instruments that demand "fundamentally the measurement of results management light of fixed standards,"[37] which are increasingly fostered by accountability language. It is the accountable curriculum in a pragmatic-neoliberal imaginary promoting a study by numbers, like teaching and learning, emanated from within neoliberal economic policies and

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of a permanent re-actuation of the rules;" John Dewey (1990, p. 188) writes that "discipline is the watchword those magnify the course of study."

29 Michel Foucault (1981, pp. 62-63).

30 Michel Foucault (1981, p. 64).

31 Michel Foucault (1981, p. 64).

32 Immanuel Kant (1900).

33 Ralph W. Tyler (1949). "The bible of curriculum making" to William F. Pinar, William F. Reynolds, Patrick Slattery, and Peter M. Taubman (1992, p. 33).

34 Jerome S. Bruner (1966).

35James McKernan (2008) uses the term "technical-behavioral (science-efficiency) curriculum conception."

36 Herbert M. Kliebard (1995, p. 24).

37 Herbert M. Kliebard (1995, p. 20).

marketplace logic referred to the discourse of standards and accountability, according to Taubman.[38]

Study as self-formation is high-jacked into cramming, highly performed into results, according to the acquisition of competencies – promoted through transnational organizations, such as OECD[39] – but also carried out through a test-driven curricular approach wherein testing,[40] scores and comparisons are the pedagogical targets. PISA, the best-known large-scale test, is a superb instrument for measuring students' learning outcomes and school quality.

Imaginary — or fantasy to Taubman — as metaphorized in the "angel of the house" of Virginia Woolf, "that is the drive to sacrifice oneself daily, to sympathize with the minds and wishes of others, and to be utterly unselfish"[41], is "that classroom success lies in 'best practices' can defend paradoxically against the fear that one's own interests are enough to form a curriculum or against feelings of aggression towards the students or a sense of insignificance."[42]

The pragmatic-neoliberal imaginary has in the commercialization and privatization ideologies[43] its essence to justify educational policies and curricular practices focused on academic productivity, especially the students' learning outcomes evaluated from standards, and practical knowledge wherein "what matters is that it makes *hic et nunc* the action, its effect and not its understanding."[44] Study-as-cramming is the materiality of

38 Peter T. Taubman (2009, p. 13), "The language of education commercialization, under the twin banners of standards and accountability, "reaches into the corners of our practices, constricts our daily life in schools, and influences how we think about we do in our classrooms."

39 Being a birth of transversal public policies, the Organization for Economic Cooperation and Development (2018a, p. 5) has promoted, in last years, a conceptual setting for the concept of competency which "implies more than just the acquisition of knowledge and skills; it involves the mobilisation of knowledge, skills, attitudes, and values to meet complex demands." Similarly, World Economic Forum (2020) establishes eight essential skills for the fourth industrial revolution: global citizenship skills; innovation and creativity skills; technology skills; interpersonal skills; personalized and self-paced learning; accessible and inclusive learning; problem-based and collaborative learning; lifelong and student-driven learning."

40 Testing implies a bureaucratic power to William F. Pinar, William F. Reynolds, Patrick Slattery, and Peter M. Taubman (1992, p. 743).

41 Madeleine R. Grumet (1988, cited in Peter M. Taubman, 2009, p. 146).

42 Peter M. Taubman (2009, p. 146), imaginary is the valorization of self-sacrifice that has "ironically contributed to the disappearance of teachers [and students] into an assemblage of best-practices."

43 Stephen Ball (2012).

44 Dominique Pestre (2013, pp. 61-62).

competitive action, in a race between winners and losers scored by individual performance and self-assessment capacity, acknowledged in curriculum approaches centered on learning outcomes and standards.[45] Student performance is the real aim of education to profit.[46]

STEM is the new Trivium and Quadrivium, especially appropriate for this accountable time which demands the universal subject of knowledge in the economy limited by evidence (the evidence of data), not by the freedom of individuals.[47] Its strength is useful knowledge through operational skills, as Lyotard says,[48] opening the door to the algorithmic curriculum in a sociotechnical imaginary. A thoroughgoing imagining[49] of education has been linked to economy-based knowledge, computational power, and digital subjectivation[50] used as a rationale for modifying the curriculum whereas cognitive power is replaced by algorithmic power. The emergent model of digital education governance widely strengthens performance and accountability of educational system in which "institutions, and even individual themselves, are changing their practices to ensure the best possible measures of performance,"[51] embracing practices of *intimate accountability* for public display and scrutiny, such as through school self-evaluation in the combination of internal and *external evaluation for assurance quality.*[52]

The sociotechnical imaginary[53] is part of a profound change not in what is the practice of the capitalist system, but in what constitutes its process of

45 José A. Pacheco (2018).

46 Martha C. Nussbaum (2010, p. 10), "Thus we are not forced to choose between a form of education that promotes profit and a form of education that promotes good citizenship. A flourishing economy requires the same skills that support citizenship, and thus the proponents of what I shall call "education for profit," or (to put it more comprehensively) "education for economic growth," have adopted an impoverished conception of what is required to meet their own goal."

47 Michel Foucault (2008, pp. 62, 72).

48 Jean-François Lyotard (1984).

49 Ben Williamson (2013, p. 20).

50 In the age of surveillance capitalism and its digital dispossession, Shoshana Zuboff (2019, p. 100) says, "In this future, we are exiles from our own behavior, denied access to or control over knowledge derived from its dispossession by others for others. Knowledge, authority, and power rest with surveillance capital, for which we are merely *human natural resources.* We are the native peoples now whose tacit claims to self-determination have vanished from the maps of our own experience."

51 Ben Williamson (2017, p. 75).

52 Ben Williamson (2017, pp. 82-83).

53 Ben Williamson (2017, p. 16), "Sociotechnical imaginaries are therefore the product of specifically political acts of imagination because they act as powerful aspirational and normative visions of preferred forms of social order."

technological innovation, being "a particular kind of reimagining of the future of education" by "the twin processes of datafication and digitization."[54] The ongoing education's digital commercialization is carried out by pressures tactics more justified in contexts of an inevitable technological innovation than those that could come from internal changes to the school itself, transforming the school's change into an unfinished process of reterritorialization of educational policies, including curriculum, pedagogy, and evaluation. School becomes a profitable space because it is now, more than ever, a business at levels of knowledge, governmentality processes, and ways of subjectivation. The politics of accountability evolves around efficiently developed models of productively of what works, reaffirming technical knowledge, redistributing authority through practices of autonomy, flexibility, and diversity, and fostering personal values and beliefs concerned with self-engagement, citizenship, and well-being. What is new in this sociotechnical imaginary?

Besides new colonial ideologies of connection, datafication, and personalization,[55] "the ideal sociotechnical imaginary of big data in education is now being materialized and operationalized through smart learning machines, made of software code and data, which might inhabit real educational spaces."[56]

Education accounts as digital data[57] in which the subject is acknowledged both by his *informational identity*[58] and by flexible techniques of social and individual formatting, such as new appealing computing devices that constitute a daily mode of subjectivation in the world of the Internet of Things – the actual Althusser' ideological interpellation.[59]

54 Ben Williamson (2017, p. 16).

55 Nick Couldry and Ulisses A. Mejias (2019, p. 16), "Data colonialism is producing its own new ideologies. First, there this the ideology of connection itself, which presents as natural the connection of persons, things, and processes via computer-based infrastructure (the Internet) that enables life to be annexed to capital … There is also the ideology of datafication, which insists that every aspect of life must be transmuted into data as the form in which all life becomes useful for capital … the marketing ideology of personalization makes such tracking and surveillance seem attractive."

56 Ben Williamson (2017, p. 23).

57 From digitization and datafication emerges the data-driven education system focused on goals of personalization, evidence-based learning, school efficiency, and continuous innovation, according to Ben Williamson (2017, p. 10).

58 Colin Koopman (2019).

59 Louis Althusser (1971).

Curriculum as an algorithm is a formatted code according to efficiently educational improvement proposal, stressing quantitative governance principles and individualized pedagogical procedure. Because there is a significant change in the notion of curriculum containing the content-knowledge to be taught in schools, says Williamson,[60] "is itself being challenged as new kinds of adaptive learning software are developed that can semi-automate the allocation and 'personalization' of content according to each learner's individual profile." What must be taught – instructional condition of the curriculum-as-plan to Aoki[61] – is replaced by what the algorithm data determines as the knowledge of most worth for each student and constantly reshaped according to the individual position.

Like a curriculum design as a competitive race, for example, a marathon, each runner has nothing in common with the other participants but their desire to win. Each runner is instructed, monitored, and evaluated to performavity according to their personal optimal pathway. The runner transformed into data, confronted with large-scale data, is the predictable winner because of useful knowledge. Of course, a new curriculum emerges in the digital age, changing standards by modularized connections as Williamson[62] argues: "framed by discourse of personalized learning, education data science is destabilizing the idea that school knowledge should be contained in standardized curricular and proposes instead that students' access to knowledge should be determined by automated, algorithmic processes and techniques." What is really new in sociotechnical imaginary is personalized learning as a cog of algorithm-modeled self-study, further explored in the future by metaverse technologies.

However, the curriculum holds its more perverse side of prescription in function of a tailor-made curriculum, replacing the one-size-fits-all curriculum, introducing a new student-centered learning system through "analytical learning"[63] – personalized and adaptive. Welcome to the curriculum of the ongoing future wherein curriculum can become any restaurant menu, and as in everyday life there are more and less sophisticated, more and less expensive, more and less popular.

60 Ben Williamson (2017, p. 7).

61 Ted T. Aoki (2011a, p. 159), "two curriculum worlds: the worlds of curriculum-as-plan and curriculum-as-lived-experience."

62 Ben Williamson (2017, p. 111).

63 Ben Williamson (2017, pp. 107-108.

Digital study

The Digital study is an experience of subjective curriculum recoded by digital technology referred to "as the ever-changing complex of technological artifacts and tools,"[64] in a time of increasing digitalization, datafication, connection, and personalization.[65] Digital technologies are the present of one future in which each of us makes room both by using technological devices and connecting to the Internet. Despite its technically innovative characteristic, the digital study brings back to school and its curriculum, pedagogy, and assessment the actuality of Heidegger's critical analysis to calculative and quantitative thinking.[66] Nowadays, it is framed in other complex dimensions, for example, it transforms the subjective curriculum-as-lived-experience[67] into mining data, considering not only the nodal knowledge but personal tastes, emotions, and preferences, presumably strong indicators of the rising meritocracy.[68]

The road to study is already made[69] because what a student can search within the Internet – the Curriculum of Things – is worked by Artificial intelligence, incorporated in technological devices, spreading post-truth politics, solving plenty of problems. Algorithmic techniques not only guide the study but also predetermine it into an almost infinite possibility. The algorithmic folds. In Zuboff' s analysis, and accepting that the digital school will also be a business, personalized study obeys the "extraction imperative,"[70] becoming into prediction product – "designed to forecast what we will feel, think, and do: now, soon, and later"[71] – in the logic of "behavioral futures markets."[72]

Personalized means neither autonomous nor free in the surveillance society, on which human experience "is subjugated to surveillance capitalism's

64 Neil Selwyn (2011, p. 6).

65 Nick Couldry and Ulisses A. Mejias (2019).

66 Martin Heidegger (2003a; 1977).

67 Ted T. Aoki (2011a, p. 159).

68 Michael D. Young (1958).

69 Unlike to Spanish poet Antonio Machado, "Traveler, there is no road; the road is made as you go," cited in Shoshana Zuboff (2019, p. 38) to refer to the journey of exploration and self-creation, not an instant swipe to already composed answer."

70 Shoshana Zuboff (2019, p. 87).

71 Shoshana Zuboff (2019, p. 95).

72 Shoshana Zuboff (2019, p. 96).

market mechanisms and reborn as behavior,"[73] and as "raw material free."[74] This new *extraction architecture*[75] imposes a new social order centered on fragmented learning, in which analytical tools determine who knows ("the distribution of knowledge and whether one is included or excluded from the opportunity to learn"), who decides ("who is included in learning, what they are able to learn, and how they are able to act on their knowledge?), and who decides who decides ("What is the source of power that undergirds the authority to share or withhold knowledge?").[76] Accordingly, the digital study based on digitalization and datafication is a computerized and algorithmic data analysis process. Personalization, extraction, and prediction are thus the basis of a more effective study modeled on predicted behaviors rather than standards, which means a break with the design of a standardized curriculum.

Another question is related to the knowledge that digital study presupposes: a calculating knowledge, as Heidegger[77] argues, and supported by personal digital assistants or robots and research on the most various ubiquitous digital devices incorporate machine intelligence.[78] The new knowledge is essentially made through a digital conversation whose interface lies in the interoperability between humans and non-humans, both in cognitive aspects and in feelings and intentions.

Regarding the question of the totalizing power that underlies digital study, Zuboff names it "instrumentarianism, defined as the instrumentation and instrumentalization of behavior for the purposes of modification, prediction, monetization, and control."[79] This power brings a technology of human behavior through the conceptual framework of behaviorism, from Watson, Skinner, and Meyer to Pentland. Central to this social theory, with a long tradition in education, is the notion of the human being as an *organism*, as

73 Shoshana Zuboff (2019, p. 100).

74 Shoshana Zuboff (2019, p.173

75 Shoshana Zuboff (2019, p. 127).

76 Shoshana Zuboff (2019, p. 175).

77 Martin Heidegger (1977).

78 Shoshana Zuboff (2019, p. 387), "Machine intelligence is enthroned as the apotheosis of collective action in which all the machines in a networked system move seamlessly toward confluence, all sharing the same understanding and thus operating in unison with maximum efficiency to achieve the same outcomes."

79 Shoshana Zuboff (2019, p. 330).

the *Other-one*, and not as *Ourselves*.[80] The subject is captured in his freedom by ubiquitous digital apparatus – Zuboff names it "the apparatus Big Other: it is the sensate, computational, connected puppet that renders, monitors, computes, and modifies human behavior"[81] – and reduced to measurable and observable behavior:

> Instrumentarianism's radical indifference is operationalized in Big Others dehumanized methods of evaluation that produce *equivalence without equality*. These methods reduce individuals to the lowest common denominator of sameness – an organism among organisms – spite all the vital ways in which we are not the same. From Big Other's point of view, we are strictly Other-Ones: *organisms that behave*. Big Other encodes the viewpoint of the Other-One as a global presence.[82]

From the instrumentarian power, the subject fades. The death of individuality or subjectivity is coming as reality in the conceptual realm of social behaviorism, as Portland[83] argues: "is time that we dropped the fiction of individuals as the unit of rationality, and recognized that our rationality is largely determined by the surrounding social fabric."

In a market-oriented instrumentarian society, Zuboff writes, "the autonomous individual is but a statistical blip, a slip of the pen that is easily overridden in the march toward confluent action and someone's greater good."[84] By instrumentarian power, society is reimagined like "a hive to be monitored and tuned for guaranteed outcomes, but this tells us nothing of the lived experience of its members,"[85] devouring centuries of individualities:

> (1) the eighteenth century's political ideal of the individual as the repository of inalienable dignity, rights, and obligations; (2) the early twentieth century's individualized human being called into existence by history, embarking on Machado's road because she must, destined to create "a life of one's own" in a world of ever-intensifying social complexity and receding traditions; and (3) the late twentieth

80 Shoshana Zuboff (2019, p. 340).

81 Shoshana Zuboff (2019, p. 352).

82 Shoshana Zuboff (2019, p. 352).

83 Alex Portland (2014, p. 31).

84 Shoshana Zuboff (2019, p. 412).

85 Shoshana Zuboff (2019, p. 415).

> century's psychologically autonomous individual whose inner resources and capacity for moral judgment rise to the challenges of self-authorship that history demands and act as a bulwark against the predations of power. The self-authorship toward which young people strive carries forward these histories, strengthening, protecting, and rejuvenating each era's claims to the sanctity and sovereignty of the individual person.[86]

In this vein, digital study bringing back behaviorism through innovative digital technologies, but whose conception and application is based both on control devices and on an instrumentarian power that transforms the subject into a predictive behavior that is mining from data; it contributes to the suppression of subjectivity and the pedagogical relationship based on the complicated conversation that is the curriculum.

A world of digital study becomes all-encompassing with massive open online courses and ubiquitous learning, creating opportunities for access to knowledge and establishing learning partnerships that by physical distance would be unthinkable. However, the non-virtual study implying a world of face-to-face is more essentially a human place, in Aoki's words, "a place where the teacher and students gather… essentially a human place dedicated to ventures devoted to a leading out… from the "is" to new possibilities yet unknown."[87] It is time to bring back the understanding study in its human dimension.

The slowness of study

Understanding is an image of a subjective study within a school of the commons[88] – the tragedy of standardization[89] – either by the grammar[90] that defines it or by the more personalized education – is now the tragedy of a

86 Shoshana Zuboff (2019, p. 439).

87 Ted T. Aoki (2011a, p. 164).

88 David F. Labaree (2012).

89 Smith Grinell and Colette Rabin (2013, p. 894), "we present a description of a tragedy of the commons at a particular school, illustrating how the school deals with external accountability pressures as would be predicted by the logic of the tragedy of the commons, and how these pressures shape school policy, curriculum, and practice."

90 David Tyack and Larry Cuban (1995, p. 85), "The basic grammar of schooling, like the shape of classrooms, has remained remarkably stable over the decades. Little has changed in the ways that schools divide time and space, classify students and allocate them to classrooms, splinter knowledge into "subjects," and award grades and "credits" as evidence of learning."

personal barcode.[91] Understanding the new curriculum approach creates a conceptual rupture with instructional study related to academic-rationalist, accountable, and algorithmic ideologies of the curriculum. Firstly referred to a paradigm shift – from traditional to reconceptualization[92] or from curriculum development to understanding curriculum[93] – the comprehensive study of curriculum is profoundly intertwined in modernist, postmodernist and post-structural perspectives rooted in thinkers of the critical Frankfurt school[94] – such as Adorno[95] (emancipatory consciousness, or *conscientização* in Freire's thought[96]), Horkheimer[97] (a consciously critical attitude), Habermas[98] (intersubjective understanding), Althusser[99] (ideological interpellation), and Heidegger[100] (subjectivity of human beings) – and to which Foucault is also linked,[101] besides to other phenomenology theorists.[102]

91 Nick Couldry and Ulisses A, Mejias (2019).

92 William Pinar (1975a).

93 William F. Pinar, William F. Reynolds, Patrick Slattery and Peter M. Taubman (1992, p. 6): "To understand curriculum does not mean that many of us do not want to change curriculum, both theoretically and institutionally… In general, we are no longer technicians, that is, people who accept unquestioningly other's priorities."

94 Peter E. Gordon, Espen Hammer and Axel Honneth (2019).

95 Theodor W. Adorno (2005, pp. 153, 158), "you just a barcode; "implicitly, a new notion of the subject is being fashioned, meaningful at the collective scale on which data processing flourishes but occluding older understanding of the individual subject."

96 Paulo Freire (1971), *Conscientização* is the deepening of the attitude of awareness characteristic of all emergence.

97 Max Horkheimer (1971, p. 229), "A consciously critical attitude, however, is part of the development of society: the construing of the course of history as the necessary product of an economic mechanism simultaneously contains both a protest against this order of things, a protest generated by the order itself, and the idea of self-determination for the human race, that is the idea of a state of affairs in which man's actions no longer flow from a mechanism but from his own decision."

98 Jürgen Habermas (1988a, 1988b).

99 Louis Althusser (1971).

100 Martin Heidegger (2001).

101 Michel Foucault (2010, p. 21), "It seems to me that the philosophical choice confronting us today is the following. We have to opt either for a critical philosophy which appears as an analytical philosophy of truth in general, or for a critical thought which takes the form of an ontology of ourselves, of present reality. It is this latter form of philosophy which, from Hegel to the Frankfurt School, passing through Nietzsche, Max Weber and so on, has founded a form of reflection to which, of course, I link myself insofar as I can."

102 William F. Pinar and William M. Reynolds (1992, pp. 1,7) describe curriculum as phenomenological and deconstructed text:"curriculum understood as a phenomenological text communicates a story in which quantitative social science is an evil character whose effort to quantify the immeasurable is unethical and epistemologically unsound"; "studies of curriculum as phenomenological and deconstructed texts present the multivocality, multiperspectivity, and *lived* aspects of textbooks and of classrooms;" "in the project to understand the curriculum, phenomenology and post-structuralism play interesting, important, and controversial roles."

A critical and post-critical attitude is required to understand the order of things in disciplinary, pragmatic-neoliberal, and sociotechnical imaginaries, urging a reflection both on the notions of knowledge, power, and subjectivation – the axiomatic axes of a focal experience in Foucault's thought – and on the notions of time, place, and subjectivity. The concept of contemporaneity is used by Koepnick[103] to reject the modernist and postmodernist periodization because slowness contemporaneity, in opposition to "the rise of today's culture of speed and compulsive connectivity," "runs counter to common juxtapositions of modernism and post-modernist, it straddles the great divide of twentieth-century aesthetic culture and urges to reconsider monolithic definitions of both the modern and the postmodern."

The interactivity of different imaginaries as ideal or the ideology of a society are acknowledged, especially those dominated by technical-bureaucratic, efficiency-optimization, and connectivity-ubiquity ideologies. From Foucault's "theory of discontinuous systematicities,"[104] the critical task tries "to grasp the forms of exclusion, of limitation" because "any critical task, putting in question the instances of control, must at the same time analyze the discursive regularities through which they are formed."

At the moment, it prevails simultaneously forms of disciplinary, pragmatic-neoliberal, and sociotechnical imaginary, albeit a global consciousness to analyze inequality and exclusion is in affirmation. In education and curriculum,[105] therefore, just as in a time of data colonialism of dismantling the autonomy of the subject,[106] study, like teaching, "becomes a dialogical encounter with whom and with what one does not know and aspires to understand;"[107] study is the heart of education[108] indwelling "positions subjects (school and human) as "intermediaries." Each – the human subject, the

103 Lutz Koepnick (2014, p.11).

104 Michel Foucault (1981, pp. 69, 70, 72).

105 James McKernan (2008, p. 27), "Since 1945, there has been a conscious attempt to employ curriculum to achieve equality of opportunity and with the rise of curriculum research into inequality has emerged a new vibrant "critical-political" ideology for curriculum."

106 Nick Couldry and Ulisses A. Mejias (2019, p. 194), "We must acknowledge that we are, most of us, deeply complicit in the order of data colonialism, whether we like it or not … media literacy relies on the virtuous 'disposition' of the subject which misses how the new order works to dismantle the autonomy of the subject."

107 William F. Pinar (2019, p. 55).

108 Madeleine R. Grumet (2017, p. 85), "as Pinar has maintained consistently throughout his scholarship, it is not learning, teaching, or knowledge that is the heart of education, but study."

school subject – is reciprocally related to the other;"[109] "study and teaching become, then, intertwined efforts to understand one's subject in a doubled sense, as academic knowledge and as a human process in time and place."[110]

In a technological era of a digital world, in the realm of the Internet of Things, education and curriculum are no longer a humanly subjective experience but an algorithmic relationship based on mining data and organizing it for personalization. Study is a matter of calculation toward statically determination erasing any conception of subjectivity. Adversely, the academic labour of study and teaching, Pinar says,[111] "is not only a matter of acquiring and conveying information, it is the ongoing professional obligation to think through what we one learns, maintaining one's openness to the world" and to "ethical engagement with alterity."[112]

Study as meditative thinking[113] is a curricular experience questioning forms of knowledge "studied in terms of their specific modes of veridiction, relations of power, not studied as an emanation of a substantial and invasive power, but in the procedures by which people's conduct is governed, and finally the modes of formation of the subject through practices of self."[114] In his notion of veridiction, Foucault uses the word *parrĕsia* as the act of truth: "in other words, *parrĕsia* is a virtue, duty, and technique which should be found in the person who spiritually directs others and helps them to constitute their relationship to self."[115] Opposed to the art of rhetoric or the art of teaching by demonstration and under Socrates' dialogue,

> he also replies by bringing out his permanent ignorance and by showing that he is not like a teacher who, without taking risks, calmly conveys what he knows, or claims to know, or thinks he knows, to those who do not know. What he does, on the contrary, is

109 William F. Pinar (2019, p. 225).

110 William F. Pinar (2019, p. 55). In another text (2007, p. xiii), he writes: "I argued that study is a more appropriate term for understanding educational experience, as it incorporates issues of agency and volition, interest and curiosity as well as interpellation and knowledge acquisition … In fact, I have argued that study – not instruction or learning – constitutes the site of education."

111 William F. Pinar (2019, p. 190).

112 William F. Pinar (2019, p. 173).

113 Martin Heidegger (1993c, p. 42).

114 Michel Foucault (2010, p. 9).

115 Michel Foucault (2010, p. 43).

> courageously show others that they do not know and that they need to take care of themselves."[116]

As a mode of study and not reducible to commonplace conceptions of teaching or pedagogy[117] – the sacred relationship between master and disciple or between screen and learner – *parrĕsia* implies to look at the teaching, not as a performative utterance but as a parrhesiastic utterance, emphasizing "his own freedom as an individual speaking"[118] because

> is a way of telling the truth, a way of binding oneself to oneself in the statement of the truth, of freely binding oneself to oneself, and in the form of a courageous act. *Parrĕsia* is the free courage by which one binds oneself in the act of telling the truth. Or again, *parrĕsia* is the ethics of truth-telling as an action which is risky and free.[119]

Summarizing, to intervene critically and subjectively in the public space of education and curriculum, the way of search the truth by study concerning to care oneself and others "is the guarantee that each will have his own autonomy, his own identity, his own political singularity."[120] Study becomes then a matter of subjectivation in the context of knowledge, power, and subjectivity of experience. Digital study is now reset by the sort of an additional interest depending on "structures that are shared by non-human systems that may lack the capacities associated with human agency."[121] The

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116 Michel Foucault (2011, p.89).

117 Michel Foucault (2010, p.53), "Nor is *parrĕsia* a way of teaching; it is not a form of pedagogy. Although it is true that it is always addressed to someone to whom one wishes to tell the truth, it is not necessarily a matter of teaching him. One may teach him, which is what Plato wants to do, but in the scenes I have been talking about there is a rough, violent, abrupt aspect of *parrĕsia*, which is completely different from a pedagogical approach. The parrhesiast, the person who tells the truth in this form, throws the truth in the face of the person with whom he is in dialogue, or to whom he is speaking, and there is none of that progression peculiar to pedagogy, passing from the unknown to the known, from the simple to the complex, or from the part to the whole."

118 Michel Foucault (2010, p. 65), "a performative utterance assumes that the person speaking has the status which permits him to carry out what is stated by making his utterance; he must be the chairman really to open the meeting, he must have suffered an offense to be able to say 'I forgive you' and for 'I forgive you' to be a performative utterance. What characterizes a parrhesiastic utterance, on the other hand, is not the fact that the speaking subject has this or that status.... What characterizes the parrhesiastic utterance is precisely that, apart from status and anything that could codify and define the situation, the parrhesiast is someone who emphasizes his own freedom as an individual speaking."

119 Michel Foucault (2010, p. 66).

120 Michel Foucault (2010, p. 199).

121 David Roden (2015, p. 45), "Like humanism, posthumanism – or the philosophical critique of anthropocentrism – comes in different flavours. All are opposed to some form of human-centred

question now is what is the most of worth knowledge referred to as artificial intelligence?

Study as a way to seek the truth through a more depersonalized education centered on artificial intelligence much more than a technical or pedagogical issue is an ethical encounter with consequences for "human subjects and their basic autonomy." Through formal and informal education, as Žižek[122] argues, "we are condemned to domination – the Master is the constitutive ingredient of the very symbolic order, so the attempts to overcome domination only generate new figures of the Master." Alternative forms of computing and connectivity are undoubtedly the remastered symbolic order or the virtual Big Other. Profoundly technological in its matrix of the Internet of Things, the curriculum is not a plan bureaucratically and standardly decided at levels of central governmentality but essentially a plan algorithmically and personally datafied.

According to what the subject is living on digital platforms, the standardized curriculum runs toward personalization, establishing a study from activities on the Internet in its hybrid forms. Bearing this orientation as a daily practice, study becomes a matter of digital connectivity to identify the virtual presence in both spaces of technological singularity and collective mind driven from data mining. The algorithmic study happens not only through the guidelines that politically define the realm of education, curriculum, pedagogy, and assessment but also in the world of little things. The personal use of technological devices is undoubtedly the most significant innovation in how the digital subject thinks, studies, and learns.

Aoki's[123]conception of curriculum-as-lived-experience considers the study an autonomous and intersubjective endeavor on which human interaction depends. It contributes to a curriculum understanding about the world as a place of trust, care, and humanity, breaking out of the seductive hold of a technological ethos to which we are beholden, especially that which is

worldview. However, they apply to different domains and often use antithetic methods of argument and analysis: speculative posthumanism … opposes human-centric thinking about the long-run implications of modern technology: *critical posthumanism* is a broadly based attack on the supposed anthropocentrism of modern philosophy and intellectual life; s*peculative realism* opposes the philosophical privileging of the human–world relationship in Kantian and post-Kantian transcendental philosophy; philosophical naturalism is also opposed to the claim that philosophical truth claims can be arbitrated from a transcendental point of view but uses scientific theory as a constraint on philosophical truth claims."

122 Slavoj Žižek (2012, p. 19).

123 Ted T. Aoki (2011a, 2011b); William F. Pinar (2011d).

linked to implementation from the curriculum-as-plan conception wherein student, like a teacher, is a thing rather than a human being. As digital subjects we are living in a global transformation and our lives run quickly in the immediacy of things connected to electronic networks – the Internet of Things inhabit within the sensorial world – demanding "instantaneous responses" through "cell phones, handled computers, and ubiquitous screening devices."[124]

In the school context, fast study increasingly emerges from triggered neoliberal economy and accentuates the curriculum like a racecourse, or a horse race[125], or a meritocratic competition, rather than a moment of life requiring self-formation and critical judgment[126]. It is tempting to think about Kantian's and Dewey's education. The slowness study as a thoughtful and calm conversation is desirable to move education into its utter subjectivity in the realm of the curriculum as a complicated conversation, theoretically remembered by Pinar[127].

In order to respond to the speed of the present "as a site charged with multiples durations, pasts and possible futures"[128], Koepnick advances with the concept of slowness "as a medium to ponder the meaning of temporality and of being present today in general, of living under conditions of accelerated temporal passage, mediation, and spatial shrinkage."[129] He invites us to look at the present "marked by such as seemingly overwhelming and mind-numbing sense of simultaneity as aesthetical activity "to reflect on

124 Lutz Koepnick (2014, p. 1).

125 Mat Maxwell (2002, p. 13), "This analogy proves very interesting when examining technocratic education because of its obvious parallels with a competition. If the (largely implicit) purpose of modern schooling is to socialize young people to accept the paradigm, and to function within the framework, of a competitive world socioeconomic system that we characterize as a "rat race," or more kindly as a "horse race," then presumably the most appropriate training would be to subject students to endless practice in the running of a racecourse, around and around, under the watchful eyes of their trainer (the teacher) and the audience in the stands (parents, administration, community, corporations, etc.)."

126 Madeleine Grumet (2017, pp. 71-72), "Study, then, is central to self-formation. Self-formation arises from our appropriation of what is around us in the world; study builds our capacity for making choices, for developing focus, for exercising critical judgment that is so central to a well-formed character. Yet there is still far too much social engineering present in schooling;" "Pinar's idea of study as the site of education becomes a spot in time whence our minds as teachers are nourished and invisibly repaired around the topic of pedagogy. Without such laparoscopic intervention, we will cease to be educators."

127 William F. Pinar (2004, 2011a, 2019).

128 Lutz Koepnick (2014, p. 3).

129 Lutz Kopepnick (2014, p. 3).

the impact of contemporary speed on our notions of place, subjectivity, and sociability."[130] The curriculum is then the purpose of the slowness study to better provide students with a subjective and critical vision of the world through a deep and wide understanding of their life experience intersected by forms of knowledge, power, and subjectivation, which in turn can be linked to "today's culture of speed, and compulsive connectivity,"[131] such as "today's culture of computing."[132]

Study is now navigation – the OECD's metaphor of learning compass [133] – oriented to global competencies through a flexible curriculum preparing for interdependence and citizenship and focusing on more personalized learning. Throughout this learning framework, the OECD emphasizes that the essential of curriculum politics is to connect personalized learning to standards and competencies. Student agency or co-agency becomes a central concept enabling and encouraging navigation towards well-being.[134] Study, however, remains on the comparative effectiveness of competencies and of learning outcomes. The new is the political metaphor for a digital age bringing new and powerful pedagogical tools and not a substantive curriculum change.

News forms of study are connected to "digital technologies (apps, platforms, software) to improve and extend education and training. Online, distance, and blended learning are specific examples of how technology can support teaching and learning processes" in order "to equip all learners with digital competencies (knowledge, skills, and attitudes) to live, work, learn

130 Lutz Kopepnick (2014, p. 4).

131 Lutz Kopepnick (2014, p. 11).

132 Lutz Kopepnick (2014, p. 14), "Like neoliberalism, the rhetoric of today's culture of computing declares us as beings in full control over reality's data, movements, and speeds, and it precisely thus denies us what it might take to become a subject in the first place, namely the intricate process of negotiating what exceeds individual control."

133 The Organization for Economic Cooperation and Development (2019a).

134 The Organization for Economic Cooperation and Development (2019a, p. 16), "Agency is defined as the belief that students have the will and the ability to positively influence their own lives and the world around them as well as the capacity to set a goal, reflect and act responsibly to effect change. Student agency relates to the development of an identity and a sense of belonging. When students develop agency, they rely on motivation, hope, self-efficacy and a growth mindset (the understanding that abilities and intelligence can be developed) to navigate towards well-being. This enables them to act with a sense of purpose, which guides them to flourish and thrive in society. Students learn, grow and exercise their agency in social contexts and this is why co-agency is also crucial. Students develop co-agency in an interactive, mutually supportive and enriching relationship with their peers, teachers, parents and communities in an organic way in a larger learning eco-system."

and thrive in a world increasingly mediated by digital technologies."[135] Throughout pedagogical history, the curriculum field has persistently been influenced by psychology and its theories of learning, such as Bruner's theory of instruction,[136] a sustainable pillar of Tyler's rationale. The prescriptive and normative Bruner's theory of learning establishes the four fundamental questions of Tyler's rationale: educational purposes, educational experiences, activities, and assessment. This analogy clarifies the method that "constitutes a rationale by which to examine problems of curriculum and instruction."[137]

Learning for testing has also been the significant curriculum development endeavor linked to outcomes, even more extensively, in a current accountability time. The common relationship between objectives/competencies and outcomes/assessment is a curriculum oversimplification bringing back the technical rationality by which the "curriculum-as-plan"[138] is constantly reinvented. Fast and quantitative learning is the efficient face of the accountable school, socially judged more by its outcomes than by its open and undetermined processes. Undoubtedly, the school lives in its intrinsic contradiction between instruction and education, surfing on curricular politics, processes, and practices defined primarily through a borrowing and lending approach,[139] focused on convergences and similarities of a global culture in which the problems of the school are embedded in interrelated systems rather than in context.

Study used to be submitted to teaching, but is now a territory of learning – analytical and algorithmic learning. The metaphor of the student as a navigator is a beautiful pedagogical image, but the instruments of this navigation are entirely based on mining extraction. Let us remember that the metaphor of the black box has grown with cybernetics and is now completed by algorithm-based digital technology. What kind of study is this?

First, it is a quantitative and fast study associated with an instructional model of teaching and learning wherein comparative numbers count as international evaluation indicators. Study is a competitive runner, and for this reason, it might be characterized by standards. As a student, I have to

135 European Union (2020, p. 2).

136 Jerome S. Bruner (1966).

137 Ralph W. Tyler (1949, p. 2)

138 Ted T. Aoki (2011a, p. 159).

139 Ninni Wahlström (2018).

recognize what I have to learn and how I have to be evaluated. Second, it is a study concerned with deep and broad learning, which is often slow, based on formative achievement rather than superficially tested performance, which is central to a sustainable purpose of engaging students intellectually, socially, and emotionally, according to Hargreaves and Fink,[140] to whom learning is a preparation for life and also a part of life. From a pedagogical perspective, this approach is based on a broad notion of study and learning, which means the formative basis on which the humanistic conception of curriculum stands.

Third, it is an engaging study in deep and personalized learning, moving the students towards autonomy, assuming their own study as a personal and social task, and the curriculum to a global competency-based model.[141] Accepting the increase of depth understanding about depth-of-knowledge means to follow the personal and global competencies[142] as results of the oriented study, such as Fullan, Quinn, and McEachen propose citizenship, character, collaboration, creativity, critical thinking, communication.[143] In this pedagogical framework toward assessment, the question is how the true potential study can be realized through new pedagogies in a technology-rich society.

Thus, technology is not the focal point, but new pedagogies sped up by technology in which the teacher is a designer of powerful learning experiences, a source of human, social and decisional capital in the learning experience, and as partners in learning with students.[144] Therefore, the study model derived from this learning approach emphasizes results and reinvents pedagogies, in which taxonomy continues to play a significant role and values refined forms of testing. In other words, it merges techno-bureaucratic and efficiency-optimization ideologies.

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140 Andy Hargreaves and Dean Fink (2006). "Principle 1: Sustainable leadership matters. It preserves, protects, and promotes deep and broad learning for all in relationships of care for others."

141 For the Organization for Economic Cooperation and Development (2018b, p. 7), "global competence is the capacity to examine local, global and intercultural issues, to understand and appreciate the perspectives and world views of others, to engage in open, appropriate and effective interactions with people from different cultures, and to act for collective well-being and sustainable development."

142 Joanne McEachen, Michael Fullan and Joanne Quinn (2018, p. 24), "The 6Cs are the competencies that matter for students both in school and beyond – they encompass what's important for students to be able to do to succeed now and throughout their lives."

143 Michael Fullan, Joanne Quinn, and Joanne McEachen (2017).

144 Michael Fullan and Maria Langworthy (2013). The text is a framework of NPDL. A global partnership.

Finally, study is connected to the growing field of deep learning embedded in artificial intelligence (IA). Such as algorithmic learning, study becomes a list of technological tasks to be realized by students about the school' s knowledge. Although a profound change in the school grammar introduced by digital technologies has been recognized, specifically of the teaching-learning context, the question to be discussed is thus argued by Selwyn: *Should robots replace teachers?*

In a sociotechnical imaginary dominated by connectivity-ubiquity ideology, the word to be used in the question is should, might, will, or could?[145] The choice to be made highlights an assertion regarding the increasing role that digital technologies have today in the way study happens in the school context, but also in the potential use of IA when it is recognized that the Curriculum of Things will already be much more than the hidden curriculum of the school curriculum. The digital subject is widespread support from technological devices for search information and knowledge in scholarly study.

The question about robots or machine learning in schools is very thinkable and prominently discussed in the current digital age of *algorithmic governance*[146] linked to performativity and accountability. AI-driven systems in education are a matter of efficiency despite "teaching work is not simply a technical matter of how to most effectively design program and implement systems."[147] Robots or software entities[148] mean recognizing of the technical nature of education – study, teaching, and learning – in which non-humans (designed and developed by humans) play support to educational settings in what is called deep learning.

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145 Neil Selwyn (2019, pp. viii, ix), "The book might have been titled *Can robots replace teachers*?… another quickly answered alternative title would be *Will robots replace teachers*?… Instead, the most pertinent question to ask is *Should robots replace teachers*?… Titling this book toward *should* rather than *could* moves the discussion into the realm of values, judgements and politics – reminding is that the integration of any technology into society should always be approached as a choice." In a sociotechnical imaginary, Ben Williamson (2017, p. 18) argues that it "defines how education in the future might be, could be, or perhaps even should be, and that might shape and delimit the everyday practices of all those who inhabit it."

146 Ben Williamson (2017, p. 60), "like the code itself in which they are written, algorithms can be understood as key techniques by which people's lives and society at large are being regulated and governed… the figure of the algorithm, then, has been conferred a certain form of authority as a concept. Which has allowed it to be inserted as technical device into all manner of social, commercial and political processes."

147 Neil Selwyn (2019, p. ix).

148 David Roden (2015).

Neuroeducation[149] is itself increased to provide hybrid conceptualizations of how students' cognitive activities are used in a pedagogical context and develop adaptive learning technology from computer-tutors and robot-teachers. The teacher becomes a technician, trainer, instructor, coach – not a professional based strictly on the human process – with the mission of controlling and supervising the best study or learning from data mining. In the current digital era, AI-driven systems have developed applications for automatized education, in which "person has been promoting itself as an alternative source of expertise in educational data analysis."[150] New applications such as robots "can be assigned to the roles of didactic tutor, classroom manager, student peer or less capable companion," and typically "are usually designed to act in the dual role of authority figure and as an explicit source of knowledge." In other words, Foucault's responsibility to care oneself [151] is transferred to technology styled as caregiving: "they [robots] tend to be task with delivering direct instruction, maintaining class control and engaging students in learning-activities."[152]

Being flexible and personalized, analytical study – and analytical learning – is determined by predictors based on "learner modelling, cognitive modelling, behaviour modelling, probability modelling, and knowledge domain modelling"[153] because educationally the algorithmic mastery is "clearly a limited means of fostering many others forms of understanding, knowing and sense-making."[154] This new personalized education model reinvented subjectivity in a framework of the politics of accountability wherein the personal space is reconfigured as "valuable self-knowledge"[155] from interaction with intelligent tutoring systems.[156] The predictive methods of AI-driven systems (recursive learning from data) are used to learn from things in the quantified process of data from previous student's performance, using "large-scale data techniques to calculate what particular segment of online

149Ben Williamson (2017, p. 159), "Within education itself, neuroscientific expertise and new neurotechnologies have become the objects of increasing interest in recent years."

150 Ben Williamson (2017, p. 161).

151 Michel Foucault (2010).

152 Neil Selwyn (2019, p. 30).

153 Ben Williamson (2017, p. 109).

154 Neil Selwyn (2019, p. 69).

155 Nick Couldry and Ulisses A. Mejias (2019, p. 170); Neil Selwyn (2019, p. 70), "this growing interest in data-informed self-regulation reflects a particularly neoliberal approach to improving."

156 Neil Selwyn (2019, p. 53), "The intelligent system is designed to respond to a model of what the individual should ideally be during the task (known as the domain of expert knowledge model).

learning each of its enrolled students should be using."[157] Predictability, student's performance, and learning style based on analytical data are the new old faces of study and learning accountability. Thus, "there are plenty of data scientists and software developers who consider that *everything* is quantifiable, calculable and amenable to statistical control."[158]

As its contribution in generating new learning settings cannot be ignored, in response to the challenges of the AI-driven system model, digital technologies' expansive existence requires the critical analysis of education, teaching, and learning. The student's and teacher's curricular experience is a "human improvement including the development of character as well as the acquisition of knowledge."[159] The character of complicated conversation as an ethical endeavor acknowledges the character of the subject – student and teacher – no longer "become "ciphers" in cram schools"[160] and an algorithm. The study, or the teaching, is now a double "codify conversation"[161]: the school subjects throughout disciplines and the logic of calculability embedded in computational processes. Like teachers, students can make personal, social, and cognitive connections, think aloud, perform with their bodies (moving, pointing, gesturing), and improvise. Like teachers, students have both the ability to make personal, social, and cognitive connections and to think aloud, perform with their bodies (moving, pointing, gesturing) and improvise.[162]

Not by analytical performance but by pedagogical relationship, study as complicated conversation – as Pinar argues – is discernible by the singularity of students and teachers.[163] The presentism of fast (effectively and efficiently) and personalized outcomes is an increased consumerist logic that might support instructional and bureaucratic tasks.[164] The tutorial study is a recursive practical from online resources despite the data mining from

157 Neil Selwyn (2019, p. 81).

158 Neil Selwyn (2019, pp. 106-107).

159 Neil Selwyn (2019, p. 12).

160 William F. Pinar (2011a, p. 11).

161 William F. Pinar (2011a, p. 6).

162 Neil Selwyn (2019, pp. 110-115).

163 William F. Pinar (2011a).

164 The Organization for Economic Cooperation and Development (2019a, p. 7), "Computers, including Artificial Intelligence, are not as good as humans at abstract tasks, manual tasks, tasks requiring complex contextual information and tasks requiring ethical judgments… They are, however, good at routine manual, non-routine manual and routine cognitive tasks."

the digital subject itself and controlling and demeaning technologies[165]. The algorithmic and calculative knowledge is useful for defining educational politics and practices. If "there is no turning back from digital,"[166] the virtual study is, however, not a "mere window dressing for mass produced sameness"[167] but a subjectively endeavor of understanding in which critical questioning[168] converts information into knowledge.

Turning into the question, *Should robots replace teachers?* the author says the most appropriate conclusion "is to resist a definitive answer," because "is best seen as a provocation," calling for "further conversation" overcoming "calculative practices encoded in algorithms that exceed human capacities."[169] Of course, a slowness conversation. As an act of resistance to the standardization of contemporary culture and to preserve humanistic education, the slowness study,[170] such as a complicated conversation, is a matter of cultivating deep thought. Conversely, in a culture of academic individualism and intellectual dominance, the study of slowness incorporates students' critique of their dependence on technology. It acknowledges that "the computational measurement of the emotional state of the learner is a clear manifestation of affective computing within the field of education."[171]

The digital subjectivity has been sped up due to the pandemic of the through advances on software and big data leading all social forms of living – "to a form of calculative governance that is exacerbating divisive politics and eroding democratic cohesion."[172] Education, curriculum, and pedagogy reflect exacerbated inequalities of powerful technologies increasingly more personalized and less inclusive. The challenge is enormous, mainly in the era of the post-COVID curriculum (Chapter 6).

165 Neil Selwyn (2019, pp. 122), "Teachers having to work *like* robots is a far more likely scenario than their being replaced outright by robots. In short, these ate technologies that are most likely to control, deskill and demean the teachers they are assisting."

166 Neil Selwyn (2019, p. 123).

167 William F. Pinar (2019, p. 388).

168 Martha C. Nussbaum (2010, pp. 50-51), "Socratic critical inquiry, by contrast, is utterly unauthoritarian. The status of the speaker does not count; only the nature of the argument."

169 Ben Williamson (2017, p. 116).

170 Maggie Berg and Barbara K. Seeber (2016, pp. 1-15).

171 Ben Williamson (2017, p. 135).

172 Ben Williamson (2017, p. 202).

Chapter 6 – The post-COVID Curriculum*

From the past we might find our way to a future unforeclosed by the present.[1]

* This Chapter is based on a draft manuscript submitted to the journal Prospects, titled *The "New Normal" in Education*, and later changed.

1 William F. Pinar (2019, p. xii).

Texts concerning the consequences of the pandemic are appearing at an accelerating pace with constant coverage by news outlets and philosophical, historical and sociological reflections by public intellectuals worldwide. Ripples from this current emergency include changes underway in several spheres including the personal, social and economic. But are there continuities as well?

Is the pandemic creating a new normal in education or simply accenting what is already becoming normal, namely, an accelerating tendency towards greater technologization? These changes constitute important challenges for education, as they require a very critical vision about the post-COVID-19 curriculum and its different perspectives. Here one can pose the following question: How can one resist the slide into a passive technologization and seize the possibility of achieving a responsive, ethical, humanistic and international-transformational educational approach?

While this an ongoing and evidently ever-intensifying tendency, it is not without its critics, especially those I link[2] to the humanistic tradition in education, evident now in curriculum conceived as a complicated conversation. In a complex and unequal world, the well-being of students requires different, even conflicting visions of the world, its problems, and the knowledge studied to address them. "From the past, we might find our way to a future unforeclosed by the present," Pinar says[3], looking at the current challenges.

The pandemic time

One word can express what many felt in the early 2020s: restlessness. It conveys what could be termed the subjectivation[4] of this era-defining event: the COVID-19 pandemic. From literary narratives, including science-fiction[5] – for instance, *The Decameron*,[6] *The Plague*,[7] and *Oryx and Crake*[8] – we know that a pandemic communicates literal as well as metaphoric meanings as it imparts both immediate and long-term changes.

2 José A. Pacheco (2021).

3 William F. Pinar (2019, p. xii).

4 Gilles Deleuze (1990).

5 William F. Pinar (2019, p. 61), "Of course, science fiction itself derives from human language and lived experience."

6 Giovanni Boccaccio (1353/2021).

7 Albert Camus (1948).

8 Margaret Atwood (2003).

As a new event, the pandemic represents an unusual change in our lives. Like a natural cataclysm, unpredicted except through science fiction, movie scripts, or pages of memorable novels, the pandemic has infected our everyday lives, causing illness and death, as well as provoking preventive measures, including social distancing, confinement and school closures[9]. Everything has changed; nobody was prepared. It is an event that disrupts the flow of time and appears to undo what had been normal. An event – think of Foucault[10] and Badiou[11] – is the surprising emergence of something new that restarts time, that creates radical ruptures and imbalances, generating a new contingency that becomes a new necessity.[12]

All events create significant changes, questioning the present. The pandemic reshuffled our needs according to a new order. Even if the pandemic crisis turns out not to be a matter of only short or medium duration, will its eventual end represent a return to the normal that had been in existence?[13] In a (de)globalized world, will these changes stop us in our tracks – sheltering in place – or move us into an unknown future? The answers to these questions are buried in the present wherein we live. I say "we" because the event is worldwide, even if it strikes disproportionately those unable to work remotely, those who provide essential services. The pandemic is now the chief sign of globalization and deglobalization (as nations close borders, airports sit empty, except for parked planes. There are no departures, no delays.

Does the pandemic mean a digital re-territorialization? Despite public health measures,[14] observes Gil[15] that the pandemic has so far generated no physical or spiritual upheaval and no universal awareness of the need to change how we live. It legitimizes a Deleuzian digital re-territorialization: techno-capitalism continues to work, perhaps not as before – as on-

9 William F. Pinar (2022, p. 2), "Surveys show that children missed being physically present with other children, but closed school buildings have meant more social isolation; for many it has spelled the end of education. The curriculum went online but around the globe hundreds of millions of children lacked access to computers and/or to the Internet."

10 Michel Foucault (2010).

11 Alain Badiou (2013).

12 Slavoj Žižek (2020).

13 The pandemic crisis has a different impact on people's everyday lives, where unemployment has terrible consequences in an already precarious marketplace.

14 Another severe change is proposed by Slavoj Žižek (2020, p. 3): "There is no return to normal, the new 'normal' will have to be constructed on the ruins of our old lives, or we will find ourselves in a new barbarism whose signs are already clearly discernible."

15 José Gil (2020).

line sales increase, professional work from home – and thereby creating new digital subjectivities and economies. We will not escape capitalism's power of self-preservation, self-regeneration, and metamorphosis, its permanent revolution[16]. In adapting subjectivities to the recent interests of digital capitalism, the pandemic can catapult us into an even more thoroughly digital society, even accelerated by artificial intelligence. These new subjectivities will exhibit increased capacities for voluntary obedience and programmable functioning abilities, a 'new normal' benefitting those savvy in software-structured social relations.

The pandemic has accelerated digitalization, calibrating subjectivities to new and increasing virtual demands, submerging us all in tsunami-like economies of the Cloud. The allegro rhythm of adaptation to the Internet of Things[17] was intensified, creating a new society comprised of humans, non-humans, posthumans.[18] For Latour,[19] the pandemic becomes internalized as a state of consciousness, an ongoing state of emergency preparing us for the next crisis: climate change, for which we will see just how (un) prepared we are.

Climate change is one of the most pressing issues of our time, and its representation in the curriculum is a public, not just a private, interest. Based on the question of both Heidegger[20] and Latour[21] – What is a thing? – Žižek[22] suggests that "values and beliefs should not be simply ignored: they play an important role and should be treated as a specific mode of assemblage." As such an assemblage, education is (post)human and has its determination by beliefs and values, themselves encoded in technology. Thus, education reflects what is as it anticipates what is next, recoding private and public

16 Wyatt Wells (2020).

17 Davies, Beauchamp, Davies, and Price (2019, p.1), "The Internet of Things (IoT) is a global network of data-sensing devices which pupils devices can access during science or other curriculum activities."

18 David Roden (2015, p. 4), "In contemporary culture, the most common term for such technologically wrought nonhuman is *posthuman*."

19 Bruno Latour (2020).

20 Martin Heidegger (1967, 1971, 1977).

21 Bruno Latour (2005, p. 2), "By the German neologism *Dingpolitik*, we wish to designate a risky and tentative set of experiments in probing just what it could mean for political thought to turn 'things' around and to become slightly more realistic than has been attempted up to now."

22 Slavoj Žižek (2020, p. 117).

responses to crises. Along with inequality, climate change is arguably the most crucial issue of our time.[23]

Consequently, the pandemic could be a starting point for a more sustainable environment. Will it detoxify our addiction to technology, sliding into a passive attitude, or will it cement it? As Pinar[24] recognizes: "No longer *novel*, this idea – that technological advance can overcome cultural, economic, educational crises – has faded into the background. That is our assumption. That faith prompts the purchase of new technology and assures we can cure climate change." While waiting for technology to rescue us, we might also remember to look to ourselves.

To make an intelligent response to climate change, I suggest reactivating the humanistic tradition in education,[25] reaffirming the right to such education as a global common good[26] through curriculum conceived as complicated conversation.[27] Central to that conversation today is climate change, driving the need for education, sustainable development, and the educational grooming of new global citizens with sustainable lifestyles and good environmental custodianship.[28] Addressing sustainable development becomes the 'new normal,' even while the present pandemic brings another new normal, as digitization enforces ways of working and distance learning is increasingly used.[29] Can sustainable development and technologization become synergistic? Yet, is this 'new normal' really new, or is it a reiteration of the old?

23 The report of the Organization for Economic Cooperation and Development (2019b, p. 9) includes the following question, "What the impact of climate change might be on our schools, families and communities?"

24 William F. Pinar (2019, p. 148).

25 The Organization for Economic Cooperation and Development (2015a, p. 10), "This approach emphasizes the inclusion of people who are often subject to discrimination – women and girls, indigenous people, persons with disabilities, migrants, the elderly and people living in countries affected by conflict. It requires an open and flexible approach to learning that is both lifelong and life-wide: an approach that provides the opportunity for all to realize their potential for a sustainable future and a life of dignity".

26 The Organization for Economic Cooperation and Development (2015a).

27 William F. Pinar (2004); José A. Pacheco (2009, 2017).

28 Mmantsetsa P. Marope (2017).

29 Daniel (2020, p. 1): "Many institutions had plans to make greater use of technology in teaching, but the outbreak of COVID-19 has meant that changes intended to occur over months or years had to be implemented in a few days." See also Paula Loureiro and Maria J. Gomes (2023).

The new normal

Indeed, the pandemic created a new normal in education or simply accenting what is normal already, namely an accelerating tendency toward technologization. These changes constitute important challenges to education, requiring a very critic vision about the post-COVID curriculum and its opposite tendencies.[30] The pandemic ushers in a new normal in which digitization enforces ways of working and learning. It forces education further into technologization, a development already well underway, fueled by commercialism and the reigning market ideology. Digital technologies are the visible face of the immediate changes in society – *the commercial society* – and schools. With the closure of schools, which was initially supposed to last weeks but has now become months, the immediate solution is distance learning, with platforms proliferating, knowledge demoted to information[31] to be exchanged, like a product, as highlighted by Lyotard[32]: "Knowledge is and will be produced in order to be sold, it is and will be consumed in order to be valorized in a new production: in both cases, the goal is exchange. Knowledge ceases to be an end in itself, it loses its *use-value*." The Internet is now the central site of such "exchange," pointing out Daniel[33] that the teachers can draw on the abundance of high-quality learning material now available as freely usable Open Educational Resources. Indeed, the new technologies have drastically changed the nature of educational processes.[34] But has it been entirely positive?

Digital technologies and economic rationality based on performance are a significant way of the commercialization of learning. Moving from physical face-to-face physical presence to virtual contact (synchronous and asynchronous[35]), the learning space becomes disembodied, virtual, not actual,

30 See, for example, Jesus M. Sousa (2022). With the closure of schools and universities in the early period of the pandemic, Mara Assunção Flores and Mariana Gago (2020) discuss the implications for teaching and teacher education in such uncertain times, particularly in regard to the role of practice as well as issues of mentoring within the context of a practicum as a real practice versus an idealized practice. António José Osório (2020) discusses the technological consequences; in turn, José A. Pacheco, José Carlos Morgado, Joana C. Sousa, and Ila Beatriz Maia (2020) reflect on the importance of valuing citizenship as a curricular issue in the face of global problems.

31 Colin Koopman (2019).

32 Jean-François Lyotard (1984, pp. 4-5).

33 John Daniel (2020).

34 United Nations Educational, Scientific and Cultural Organization (2015a).

35 John Daniel (2020, p. 3), "creating an asynchronous digital classroom gives teachers and students more room to breathe." For António Dias Figueiredo (2020), new learning models, such as blended learning, seek to reconcile face-to-face learning with distance learning. Consequently, according to

impacting both student learning and the organization of schools, no longer buildings but websites. Such change, however, is not coterminous with the pandemic, as the Education 2030 Agenda[36] testifies. Preceding that influential document was the Delors Report[37] wherein education was recoded as lifelong learning, including learning to know, learning to do, learning to be, and learning to live together.

Transnational organizations have specified competencies for the 21st century in the process of defining disciplinary and interdisciplinary knowledge that encourages global citizenship[38] through "the supra curriculum at the global, regional, or international comparative level,"[39] not only acknowledging the traditional school subjects but also shifting the curriculum towards timely topics, dedicated to understanding the emergencies of the day.[40] But for the OECD,[41] the new normal strengthens two ideas: competency-based education[42], including the knowledge identified in the Delores Report[43] and a new learning framework structured by digital technologies.[44]

Mariano Fernández-Enguita (2023), we are experiencing a ubiquitous digital transformation that is broader, faster, and deeper than any previous one.

36 United Nations Educational, Scientific and Cultural Organization 2015b; United Nations (2015).

37 Jacques Delors (1996).

38 United Nations Educational, Scientific and Cultural Organization (2017), "While the world may be increasingly interconnected, human rights violations, inequality and poverty still threaten peace and sustainability. Global Citizenship Education (GCED) is UNESCO's response to these challenges. It works by empowering learners of all ages to understand that these are global, not local issues and to become active promoters of more peaceful, tolerant, inclusive, secure and sustainable societies."

39 Mmantsetsa P. Marope (2017, p. 10).

40 Penny Spiller (2017).

41 The Organization for Economic Cooperation and Development (2019a).

42 Mmantsetsa P. Marope (2017, p. 19), "contextual changes are bringing new competences into the core of curricula. These new competences include digital and technology literacy, technology savvy, coding as a key language, understanding digital content, and the digitization of the curriculum itself. Technology is also becoming an integral part and facilitator of other core competences." For the Organization for Economic Cooperation and Development (2019b, pp. 9, 11), "Education has an important role to play in equipping students with skills to succeed in the global future."

43 Jacques Delors (1996).

44 The Organization for Economic Cooperation and Development (2019a, p. 15), "The Learning Framework uses the metaphor of the "learning compass" to show the types of competencies students need in order to navigate towards the future we want, individually and collectively. Just as a compass orients a traveller, the OECD Learning Compass 2030 indicates the knowledge, skills, attitudes and values students need not just to weather the changes in our environment and in our daily lives, but to help shape the future we want."

The pandemic does not change this logic. Indeed, the interdisciplinary skills framework, content, and standardized testing associated with the OECD's *Programme for International Student Assessment* has become the most powerful tool for prescribing the curriculum. Educationally, Pinar[45] writes,

> the universal homogenous 'state' exists already. Globalization of standardized testing – the most prominent instance of which is the Program for the International Student Assessment – reduces learning to standardized test scores and teaching to test preparation, threatening to restructure schools into technological sites of political socialization, conditioning children for compliance to a universal homogeneous state of mind.[46]

In addition to cognitive and practical skills, this "homogenous state of mind" rests on so-called social and emotional skills in service to learning to live together, affirming global citizenship and presumably returning agency to students and teachers).[47] According to Marope,[48] "this calls for higher flexibility in curriculum development, and for the need to leave space for curricula interpretation, contextualization, and creativity at the micro level of teachers and classrooms." Heterogeneity is hereby enlisted both in service to economic homogeneity and disciplinary knowledge. Among the competencies proposed for the 21st century is disciplinary knowledge, presented as universal, endowed with social, moral and cognitive authority. Operational and effective knowledge becomes central due to the influence of financial lobbies, ensuring that the logic of the market is brought into the practices of schools. As Pestre[49] observes, "the nature of this knowledge is new: what matters is that it makes *hic et nunc* the action, its effect and not its understanding." Its functionality follows (presumably) data, evidence-based management. A new language imposes itself on education and curriculum. Such enforced installation of performative language and

45 William F. Pinar (2019, p. x).

46 William F. Pinar (2019, p. x).

47 As mentioned by the Organization for Economic Cooperation and Development (2019a, p. 13), "Most importantly, the role of students in the education system is changing from participants in the classroom learning by listening to the directions of teachers with emerging autonomy to active participants with both student agency and co-agency, in particular with teacher agency, who also shapes the classroom environments."

48 Mmantsetsa P. Marope (2017, p. 22).

49 Dominique Pestre (2013, pp. 21-22).

Big Data,[50] leads to effective and profitable operations in a vast market for competence in operational skills.[51] This new normal curriculum is said to be more horizontal, less hierarchical, and radically polycentric, problem-solving produced through social networks, NGOs, transnational organizations, and think tanks.[52]

Untouched by the pandemic, the new (old) normal remains based on disciplinary knowledge, remains enmeshed in the discourse of standards and accountability in education.[53] Such enforced commercialism reflects and reinforces economic globalization. Unsurprisingly, Pinar[54] worries that "the globalization of instrumental rationality in education threatens the very existence of education itself." In his theory, the commercialism and technical instrumentality by which homogenization advances erase education as an embodied experience and the curriculum as a humanistic project.[55] Replacing in-person dialogical encounters and the educational cultivation of the person (via *Bildung* and *currere*) are digital technologies, creating uniformity of the learning spaces despite its individualistic tendency. Of course, education occurs outside schools – and occasionally not in schools – but this causal displacement of school implies a devaluation of academic Knowledge in the name of diversification of learning spaces. What is new about the pandemic?

In society, education and specifically in the curriculum, the pandemic has brought nothing new, only an acceleration of already extant trends, summarized as technologization. Those who can work remotely exercise their privilege as they exploit an increasingly digital society; they themselves are

50 The Organization for Economic Cooperation and Development (2019a, p. 25), "For example, emerging technologies, such as Artificial Intelligence and Big Data, have changed the ways people work, live, learn and interact".

51 Jean-François Lyotard (1984).

52 Dominique Pestre (2013; Ben Williamson (2013, 2017).

53 Peter Taubman (2009, p. 13), "None of us who teach, regardless of the educational level, are immune to the effects of the transformation taking place. It reaches into the corners of our practices, constricts our daily life in schools, and influences how we think about we do in our classrooms. It dictates how we spend at least some of our professional time, how our work is evaluated, and how we determine the meaning of our work".

54 William F. Pinar (2011, p. 30).

55 It is a time in which the humanities are devalued as well, as acknowledged by Pinar (2019, p. 377), "In the United States [and in the world] not only does economics replace education – STEM replace the liberal arts as central to the curriculum – there are even politicians who attack the liberal arts as subversive and irrelevant … it can be more precisely characterized as reckless rhetoric of a know-nothing populism."

changed in the process their own subjectivities digitalized, predisposing them to a Curriculum of Things, connected to learning models organized around not knowledge but information.[56]

The web curriculum[57] has become an educational reality during the pandemic and will have much more space in the future. This (old) new normal[58] was advanced by the OECD, among other international organizations, precipitating what some see as "a dynamic and transformative articulation of collective expectations of the purpose, quality, and relevance of education and learning to holistic, inclusive, just, peaceful, and sustainable development, and to the well-being and fulfillment of current and future generations."[59] COVID-19, illiberal democracy, economic nationalism, inaction on climate change all upend this promise.

Comprehending the psychological and cultural complexity of the curriculum is crucial. Without appreciating the infinity of students' responses to what they study, one cannot engage in the complicated conversation that is the curriculum. Thus, supplementing slogans must be an affirmation of "not only the individualism of a person's experience but *underlining the significance* of a person's response to a course of study that has been designed to ignore individuality in order to buttress nation, religion, ethnicity, family, and gender."[60] Rather than promoting neuroscience as the answer to the problems of curriculum and pedagogy, it is long past time for rethinking curriculum development – addressing the canonical curriculum question – What knowledge is of most worth – from a humanistic perspective[61] and

56 Colin Koopman 2019; Nick Couldry and Ulisses A. Mejias (2019).

57 Maria Elizabeth Almeida (2022, p. 18) uses this term as a theoretical construct and a category of action, considering "that remote education has offered opportunities for other means of conducting an education founded on principles involving dialogue, reflection, and the co-construction of knowledge."

58 Paulo Dias and João Correia Freitas (2022b, p. 6), "Digital Society today is increasingly asserting itself as an unavoidable reality and its fast pace of development has risen particularly significant challenges to Education models, processes and practices… These are therefore times of both emergence and necessary reflection upon such new normality… Education cannot be planned as a space for the reproduction of knowledge and practices as it must assert itself freely in the culture of innovation for the society of learning and networked knowledge."

59 Mmantsetsa P. Marope (2017, p. 13).

60 Madeleine R. Grumet (2017, p. 77).

61 United Nations Educational, Scientific and Cultural Organization (2015a, p. 41): "What would a humanistic curriculum look like from the perspective of policy formulation and content? It promotes respect for diversity and rejection of all forms of (cultural) hegemony, stereotypes and biases".

structured by complicated conversation.[62] Revisiting the curriculum in the pandemic era then expresses the fallacy of the new normal but also represents a particular opportunity to promote a different educational and curricular understanding.[63]

Looking to the post-COVID curriculum[64]

Based on the notion of curriculum as complicated conversation, proposed by Pinar,[65] I suggest that the post-COVID curriculum seizes the possibility of achieving a responsive, ethical, and transformational educational approach,[66] outlining the vision of a humanistic and international-aware change. While beliefs and values are anchored in social and individual practices,[67] education extracts them, for critique and reconsideration.

Even when education "offers a way to think the significance of educational experience without imposed value… [any] specific definition of education that is provided is always 'preferred,' which is to say normative."[68] For example, freedom and tolerance are not neutral but normative practices, although ideology-free policymakers imagine them to be. That same sleight-of-hand – value neutrality in service to a certain normativity – is also evident in a concept of society as a relationship between humans and non-humans (or posthumans), a relationship mediated by technology, now machines interfacing with other machines. This digital society model is "non-geographical, decentralized, data-driven, subject to network effects and exponential growth."[69] It is not just a technological change – as if it were a quarantined domain severed from society – but a totalizing

62 William F. Pinar (2004). In another book, he writes, "curriculum is no procedural strategy to operationalize objectives to outcomes; it is a complicated conversation from which the infinity of human experience becomes focused on the meaning of the moment" (2019, p. 378).

63 And probably the reinvention of pedagogy, as Teresa Santos, Maria P. Alves and Susana Sá (2022) advance.

64 William F. Pinar (2022, p. 14) asks, "What will curriculum studies look like post-pandemic? The project of internationalization seems threatened as economic contraction, political polarization, and climate catastrophe converge to keep us "locked-down" in literal and metaphoric senses."

65 William F. Pinar (2004).

66 See, for example, Renato Opertti (2022).

67 Regarding this issue, William F. Pinar (2019, p. 57) concludes, "We would not disagree, I think, over acknowledging that curriculum questions are questions in contexts, but also historical (despite his insistence on timelessness) and often political."

68 Emile Bojesen (2020, pp. 2-3).

69 Jamie Bartlett (2018, p. 4).

digitalization of human experience, including the structures of society, itself less social than economic, social bonds now financial transactions sutured by software.

Now that subjectivity is digitalized, the human face has become an economic one, fabricating the fantasy of the rational and free – always self-interested – agents in supposedly free markets. Oddly enough, there is no space or place to a vision of a humanistic and international-aware change. Instead, the technological dimension of the curriculum is assumed as the main change deeply imposed by global standards. Furthermore, digital technologies are a significant contribution to a passive technologization reinforced by the pandemic. The worldwide pandemic supports arguments for imposing forms of control,[70] including the geolocation of infected people, suspending – in a state of exception – civil liberties, accomplished by surveillance so that "technology and democracy are locked in a bitter conflict."[71]

By destroying democracy, the technology of human control leads to totalitarianism and barbarism, ending tolerance, difference and diversity. Remembrance and memory are needed so that historical fascisms[72] are not repeated, if in new disguises.[73] Technologized education also enhances efficiency, ensures uniformity as it presumes objectivity, to the detriment of human reflection and singularity. It imposes the running data of the curriculum of things, eschewing intellectual endeavor, critical attitude, and self-reflexivity.

Even while recursive self-improvement is a concrete possibility, Latour notes that endowing machine with consciousness undermines it. For those who advocate the primacy of technology and the so-called market, the pandemic represents opportunities for profit and a confirmation of the pervasiveness of human error, an argument for the efficiency of the non-human, the inhuman: technology. What can protect children from this inhumanity, their commodification as human capital, is a humanistic education, contradicting their commodification. The decontextualized technical vocabulary in

70 For Slavoj Žižek (2020, p. 127), one of the most probable outcomes of the epidemic is that "digital control of our lives will remain a permanent feature."

71 Jamie Bartlett (2018, p. 4).

72 Geoff Eley (2020).

73 Theodor W. Adorno (2011) refers to the Second World War, specifically the Holocaust, with all mean for human dignity.

a market society produces an undifferentiated image, one in which people are blinded to nuance, distinction, subtlety. For Pestre, concepts associated with efficiency convey the primacy of economic activity – to the exclusion of ethics, for instance – as they devalue historical (if unrealized) commitments to equality and fraternity, emphasizing economic freedom and autonomy self-interested individuals; it constitutes a movement towards total efficiency, installing a uniformity of behavior, devaluing diversity and human creativity.

The post-COVID curriculum scenario creates a possibility for a different educational approach. Erased from the screen is any image of public education as a space of freedom,[74] affirmed by Macdonald[75] as "the dignity and integrity of each human." What we face is the post-human, the undisputed reign of instrumental reality, where the ends justify the means, and human realization is reduced to the consumption of goods and experiences. As Pinar[76] observes: "In the private sphere, however, freedom is recast as choice of consumer goods; in the public sphere it converts to control, the demand that freedom flourish so that whatever is profitable can be pursued". Such "negative" freedom – freedom from constraint – ignores "positive" freedom, requiring us to contemplate – in ethical and spiritual terms - what freedom is for. To contemplate what freedom is requires "critical and comprehensive knowledge"[77] not only instrumental and technical knowledge. The humanities and the arts might reoccupy the centre of the curriculum instead of being confined to its margins,[78] a move that acknowledges that what is studied within schools is a complicated conversation among those present – including oneself - and ancestors and those yet to be born.[79]

In an era of unconstrained technologization, the challenge facing the curriculum is coding and STEM, technology dislodging those subjects explicating the human. This is not necessarily a classical curriculum – although

74 Macdonald (1995, p. 37), "The schools should serve the youth as our society by helping them to become better democratic citizens and better individuals … thus, the acts of facilitating the development of individual human potential and the functional participation of persons in democratic social processes are mutually supportive".

75 James B. Macdonald (1995, p. 38).

76 William F. Pinar (2019, p. 100).

77 Dominique Pestre (2013, p. 39).

78 Ian Westbury (2008, p. 56) analyses curricular change as "(at best) adjustments around the margins of an established system, not a change in basic structures that might put the system's stability, and therefore legitimacy, at risk."

79 William F. Pinar (2004).

it could be – but one focused on the emergencies of the moment: climate crisis, the pandemic, mass migration, right-wing populism, economic inequality. Informed by the school subjects, such timely topics – at secondary school, they could be taught as short courses, at the elementary level as thematic units – would be informed by the traditional school subjects (including STEM). Such a reorganization of the curriculum would allow students to see how academic knowledge enables them to understand what is happening to them and their parents, in their regions and countries, worldwide. Such a cosmopolitan curriculum prepares children to become citizens not only of their own nations but of the world, citizenship simultaneously subjective and social as well as singular and universal.[80] Pinar[81] reminds that "the division between private and public was first blurred then erased by technology," adding:

> No longer public, let alone sacred, morality becomes a matter of privately held values, sometimes monetized as commodities, statements of personal preference, often ornamental, sometimes self-servingly instrumental. Whatever their function, values were to be confined to the private sphere. The public sphere was no longer the civic square but rather, the marketplace, the site where one purchased whatever one valued.[82]

New technological spaces are the universal centre for values. The civic square is now Amazon, Alibaba, Twitter, WeChat and other global online corporations. The facts of our human condition – a phrase from one hundred years ago but uncanny in its echoes today – can be studied in schools, a complicated interdisciplinary conversation on public issues that eclipse private interests,[83] namely social injustice, inequality, democracy, climate change, refugees, migrants, and minority groups. Understood as a responsive, ethical, humanistic and international-transformational educational approach, such a post-COVID curriculum could be a "force for social equity,

80 This universal is described by Mmantsetsa P. Marope (2020, pp. 4-5) in regard to the curriculum based on UNESCO's global citizenship education: "By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development."

81 William F. Pinar (2019, p. 98).

82 William F. Pinar (2019, p. 98).

83 Richard Rorty (1999).

justice, cohesion, stability, and peace."[84] "Unchosen" is certainly the adjective describing our obligations now, as we are surrounded by death and dying and threatened by privation or even starvation, as economies collapse and food-supply chains are broken. It is not only a space of inquiry but a specific place:

> The present is not only space – empty, endless opportunity, absolute freedom – it is place. And place is not only physical but cultural, often spiritual, and certainly historical, haunted by what has happened (t)here, threatened by what may. It is no environment, in the sense of a clean slate, but a situation, already structured, in process, well underway, and within which one has perhaps unchosen obligations.[85]

The pandemic may not mean deglobalization, but it surely accentuates it, as national borders are closed, international travel is suspended, and international trade is impacted by the accompanying economic crisis. On the other hand, economic globalization could return even stronger, as could the globalization of education systems. The "new normal" in education is the technological order – a passive technologization – and its expansion continues uncontested and even accelerated by the pandemic.

Two distinct Greek concepts allow a discussion between quantitative and qualitative. Echoing the ancient Greek concept of *kronos*[86], the technologically structured curriculum values quantity, performance, always assessed by a standardized accountability system enforcing an "ideology of achievement."[87] Self-evaluation subjectively internalizes what is useful and what is in conformity with the economy, according to so-called standards, enforcing technical (software) forms. It is a curriculum in allegiance to "order and control,"[88] recoded as the Internet of Things. Knowledge is only an instrument for economic success, compulsory collaboration creating efficiency in teaching and learning and trading. Hence, technological subjectivity,

84 Mmantsetsa P. Marope (2017, p. 32).

85 William F. Pinar (2019, p. 19).

86 Mikko Lahtinen (2009, p. 252), "While *Kronos* refers to chronological or sequential time, *Kairos* refers to time that might require waiting patiently for a long time or immediate and rapid action; which course of action one chooses will depend on the particular situation."

87 James B. Macdonald (1995, p. 51), "the central ideology of the schools is the ideology of achievement… is a quantitative ideology, for even to attempt to assess quality must be quantified under this ideology, and the educational process is perceived as a technically monitored quality control process."

88 William E. Doll (2013, p. 314).

intertwined with the Internet of Things, becomes enfleshed software, redesigned for effectiveness, its *use-value* in Lyotard's words. The Curriculum of Things or Everything flourishes through the Internet, simultaneously an object[89] and a thing,[90] presumably a powerful "technological tool for the process of knowledge building."[91] Online learning occupies the zone between the "curriculum-as-planned" and the "curriculum-as-lived."[92] The world of the curriculum-as-lived fades as the screen shifts, children embedded in an ocularcentric system of accountability and the instrumentality.

In contrast, the concept of *kairos* implies lived time – even slow time[93] – as it is "self-reflective"[94] and autobiographical,[95] inspiriting possibilities of "curriculum improvisation"[96] while emphasizing "the plurality of subjectivities."[97] *Kairos* accents singularity, acknowledging the particularities while sceptical of similarities.[98] So conceived, curriculum can become a complicated dialogue, occurring not in chronological time but imposing its own time. Such dialogue is not neutral, apolitical, or timeless. It focuses on the present and is intrinsically subjective, even in public space, or as Pinar[99] writes: "its site is subjectivity as one attunes oneself to what one is experiencing, yes to its immediacy and specificity but also to its situatedness, relatedness, including to what lies beyond it and not only spatially but temporally." "Kairos" is, then, the uniqueness of time that converts curriculum into a complicated conversation, the subjective reconstruction of learning as consciousness of everyday life, encouraging the inner activism of quietude and disquietude.

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89 Martin Heidegger (1967, 1971). Due to artificial intelligence, the Internet of Things derives from humans and posthumans, and it is not a simple object. In Heidegger's concept of things, a thing has the existential notion of spatiality and historicity, in a "totality of involvements", as a site of the intelligibility of human beings in the ways of "being-here", "being-in-the-world" and "being-as-the other."

90 Answering his own question – What is the thing in itself? – Martin Heidegger (1971, p. 180) summarizes, "Men alone, as mortals, by dwelling attain to the world as world. Only what conjoins itself out of world becomes a thing."

91 Barbara Means (2008, p. 137).

92 William F. Pinar (2019, p. 90). Pinar quotes Aoki's concepts.

93 Lutz Koepnick (2014).

94 James B. Macdonald (1995, p. 103).

95 William F. Pinar (2004, 2019).

96 Ted Aoki (2011b, p. 375).

97 Madeleine R. Grumet (2017, p.80).

98 Melissa Shew (2013, p. 48), "*kairos* is that which opens an originary experience—of the divine, perhaps, but also of life or being. Thought as such, *kairos* as a formative happening—an opportune moment, crisis, circumstance, event—imposes its own sense of measure on time."

99 William F. Pinar (2019, p. 52).

The disquietude conversation is simultaneously individual and public, establishing the international space, deglobalized and autonomous, as the source of the responsive, ethical, and humanistic words. No longer entranced by the distracting dynamic stasis of image-after-image on the screen, the student can face what his or he emplacement in the physical, natural, and technological world is. The discourse of subjectivity and critical attitude has its origins in the vision of a humanistic and international-aware curricular change, bringing back the curriculum of the future.

In sum, slow down, linger. That is political as well as psychological resistance to the acceleration of time,[100] acceleration the pandemic has intensified. Pandemic has moved curriculum to online, forcing children physically away from each other, physically from their teachers, from the in-person dialogical encounters classrooms can enable. The public space disappears into the pre-designed screen space software allows, the machine is now the material basis for a curriculum of things. In terms of its predominant tendency, the curriculum becomes a technological task that is not only widely participated through global and individual networks but embedded on technological devices imposing the student's passive technologization. Now one hundred years old, Chaplin's images of modern times return, no longer humorous images, now serious subjection to technological necessity:

Our subjection to technological necessity would seem to leave us as cogs in the machine, ourselves like moving parts, we keep functioning efficiently, increasing productivity calculating the creative destruction of what is, the human now materialized (de)vices ensnaring us in convenience, connectivity, calculation.[101]

Technology enables standardized testing, enforces software-designed conformity and relentless self-evaluation while erasing lived experience. Others insist that technology may function another way: "Given the potential of information and communication technologies, the teacher should now be a guide who enables learners, from early childhood throughout their learning trajectories, to develop and advance through the constantly expanding maze of knowledge."[102] Time will tell.

100 Maggie Berg and Barbara K. Seeber (2016).

101 William F. Pinar (2019, p. 8).

102 United Nations Educational, Scientific and Cultural Organization (2015a, p. 51).

The canonical curriculum phrase – What knowledge is of most worth? – is an open and complicated question. In an endangered world, providing for the well-being of students is not obvious, as well-being is embedded in different non-neoliberal visions of the world and its problems. Citizenship is a valued if not complicated element of political agendas.[103] "Education is everybody's business", Pinar[104] points out, "fostering responsible citizenship and solidarity in a global world,"[105] resisting inequality and exclusion, e.g., migrant groups, refugees, and even people who live below or on the verge of poverty.

In this fast-moving digital world, education needs to be inclusive but not conformist, as the United Nations declares: education to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.[106] "The coming years will be a vital period to save the planet and to achieve sustainable, inclusive human development."[107] Is such sustainable inclusive human development achievable through technologization? Can technology succeed where religion has failed?

Despite its contradictions and economic emphases, public education has one clear obligation: to create embodied encounters of learning through the curriculum as a complicated conversation. This conversation acknowledges the worldliness of a cosmopolitan curriculum as it affirms the personification of the individual.[108] As Grumet notes (2017, p. 89), in education "as a form of ethics, there is a responsibility to participate in conversation." Certainly, it is necessary to ask over and over again the canonical curriculum question: what knowledge is of most worth?

If time, technology and teaching are moving images of eternity, curriculum and pedagogy are also, both "moving" and "images" but not an explicit, empirical, or exact representation of eternity… if reality is an endless series of "moving images," the canonical curriculum question – What knowledge is of most worth? – cannot be settled for all time by declaring one set of subjects eternally important.[109]

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103 Diane Richardson (2018).

104 William F. Pinar (2019, p. 2).

105 United Nations Educational, Scientific and Cultural Organization (2015a, p. 66).

106 United Nations (2015).

107 United Nations (2019, p. 64).

108 William F, Pinar (2011).

109 William F. Pinar 2019, p. 52).

In a complicated conversation, the curriculum is not a fixed image, sliding into a passive technologization. As a "moving image," the curriculum occurs contingently, in specific circumstances, and its in-person constitutes a politics of presence, an expression of subjectivity,[110] affirming the infinity of reality: "Shifting one's attitude from 'reducing' complexity to 'embracing' what is always already present in relations and interactions may lead to thinking complexly, abiding happily with mystery."[111] Describing the dialogical encounter characterizing curriculum conceived as a complicated conversation, Pinar[112] explains that this moment of dialogue "is not only place-sensitive (perhaps classroom centred) but also within oneself," because "the educational significance of subject matter is that it enables the student to learn from actual embodied experience, and outcome that cannot always be engineered."[113]

The curriculum is not a technological experience. It is about "creating, sculpting, and finessing minds, mentalities, and identities, promoting style of thought about humans, or 'mashing up' and 'making up' the future of people."[114] The curriculum as constructed, invented and assembled experience needs to be a complicated conversation, informed by a responsive, ethical, humanistic, and international-transformational educational approach.

Yes, we need to linger, taking time to contemplate the curriculum question. As human agency demands from us an attitude of understanding of others as part of our experiences in the ongoing moment. Only in this way will we share what is common in our experience of this current pandemic, changing our time and our learning, foreclosing our future. What can restore it is curriculum conceived as a complicated conversation, as it restarts time, enacts the private and public as distinguishable, not fused in a computer screen. Otherwise, reading Oryx and Crake – the novel by Margaret Atwood[115] – people will have to admit that *the future has changed. Is it much worse* and bleaker or radically different?

110 Madeleine R. Grumet (2017).

111 William E. Doll (2012, p. 172).

112 William F. Pinar (2019, p. 53).

113 William F. Pinar (2019, p. 53).

114 Ben Williamson (2013, p. 113).

115 Margaret Atwood (2003).

Concluding – Disquietude study

I always live in the present,
I don't know the future and
no longer have the past.[1]

1 Fernando Pessoa (1991, p. 64).

Our will as subjects immersed in his subjective circumstances seem eerily similar in this globalized world. Simultaneously personalized and *algorithmicalized,* the sociotechnical imaginary brings back the critical curricular question – What knowledge is of most worth? – not in terms of 'calculative thinking' but in 'meditative thinking'[2] and 'consciously critical attitude'.[3]

Change is the culture of the present, happening as events embedded in open contexts because the knowledge of each generation advances in the construction of different futures, however solid the past may be in the interpretation of memories that are the essence of testimonies. Thus, the curriculum does not cease to be a memory of knowledge, reconstructed in the present as a dynamic project for the future. As a changeable time, the pandemic provided "a welcome opportunity for science to assert itself" as a "predominant form of trans-cultural universality,"[4] preserving the individual as the absolute entity that fears the terror of the abyss.[5] The subject as consciousness and guarantee of knowledge in Kantian's sense or the subject caring to oneself in Foucault's analysis is the very thing that is now at stake. In a surveilled society in which computational technologies become machinic individuation, the subject loses his *aesthetic experience*[6] because here it is a living-knowledge (a *savoir vivre*), as "*established by living beings,*"[7] that is to say, humans and not-humans.

Increasingly driven by big data, the subject encounters his subjectivity through disquietude, whose becoming resurfaces "to convert lived experience into educational experience."[8] So, the curriculum "is no procedural strategy to operationalize objectives into outcomes; it is a complicated conversation[9] from which the infinity of human experience becomes focused

2 Martin Heidegger (2003a, p. 89).

3 Max Horkheimer (1971, p. 229).

4 Slavoj Žižek (2020, p. 125), "We are now forced to admit that modern science, despite all its hidden biases, is the predominant form of trans-cultural universality. The epidemic provides a welcome opportunity for science to assert itself in this role."

5 Max Horkheimer (2004, p. 93), "Hamlet often called the first truly modern individual, is the embodiment of the idea of individuality for the very reason that he fears the finality of death, the terror of the abyss."

6 Bernard Stiegler (2015, p. 25).

7 Bernard Stiegler (2015, p. 25), "Cognitive and calculative, these knowledge technologies have integrated and formalized know-how and living-knowledge – as they realize and generalize the exteriorization of the nervous system and the imagination."

8 William F. Pinar (2019, p. 376).

9 William F. Pinar (2004; 2019).

on the meaning of the moment."[10] The moment is a critical attitude to understand the past and imagine the future, which is only possible through a curriculum that enhances subjectivity and critical thinking.

The human experience, according to Foucault,[11] is the study of the relationship between truth (knowledge), power (procedures), and subject (constitution of its modes of being). The concept of curriculum is thus a conversation to apprehend its complexity, spatially, and temporality as an educational experience. Furthermore, it is a subjective conversation, but human nature is sociable, including the "interior dialogue"[12] between the subject in his multiplicity and others in their diversity. This reciprocity is the place of subjectivity, "as one attunes oneself to what one is experiencing, yes to its immediacy and specificity but also to its situatedness, relatedness, including to what lies beyond it and not only spatially but temporally."[13]

Realistically, the curriculum becomes not quite the subjective reconstruction of a political decision, but the normative space of knowledge analyzed from competencies, as OECD[14] reminds. It proposes a significant shift for a 21st-century curriculum: "digital curriculum, personalised curriculum, cross-curricular content, and competency-based curriculum, flexible curriculum." Is this a critical conversation of the curriculum or a technical view on the technical cog of the curriculum, neo-pragmatically reinforced by algorithms?

The Curriculum of Everything advances as the eternal future in which artificial intelligence surpasses the human capacity to do but not that of understanding and feeling. "Technologization – including A.I. – is inevitable," Pinar[15] says, adding:

> In this multi-faceted accelerating macro-trend there is much to appreciate. There is also much to dread. Besides taking teaching jobs, technologization is making 24-7 surveillance possible, allowing authoritarian regimes to tighten their control over every aspect of citizens' lives. Technologization also, and inadvertently, creates a

10 William F. Pinar (2019, p. 378).

11 Michel Foucault (2008).

12 Tzvetan Todorov (2002, p. 140.

13 William F. Pinar (2019, p. 52).

14 The Organization for Economic Cooperation and Development (2020, p. 9).

15 William F. Pinar (2022, p. 7).

> supranational software state as humanity is being subjectively restructured by our submersion in the screen.

The ideology of prescription captures the subject by seduction, itself an ideology inscribed in algorithmic governance. The school knowledge discussed the slow questioning of the world, is a human enterprise, not necessarily becoming a technical fallacy but a moment of the care of oneself in dialogue with others. Here, it is necessary to discuss what counts as technology for education in a context of equity and inclusive policy, as well as of learning based on datafication, digitization, connectivity, and predictability. The curriculum moves to virtual, and new teaching and learning practices are addressed herein "with intimate data analytics, students are anatomised biologically as 'data bodies', with the autonomic biological signals traced from their faces and bodies treated as proxies of internal states of attention, cognition, neural function and affect."[16]

Political and technical curricular languages are now embedded in a digital future in which the subject becomes his algorithmic avatar. The subject of uniqueness in his autonomy and liberty only becomes human through internal – "I am multiple in myself," Todorov says, reading Montaigne[17] – and external plurality. In such conversation, the subject "is made up – also – of contact with others, and that since these others are multiplicity and occupy various positions in relation to him, he himself is condemned to infinite diversity."[18] In the current digital time, the subject is a barcode, the cave where his shadow is virtual data. His multiplicity and autonomy lie in Althusser's grammatical subject (the Educational Ideological Apparatus) and Foucault's critical questioning about knowledge, power, subjectivation, and the world of individual restlessness. His digital identity as a process of subjectivation imposes patterns of knowledge and power on him, such as technologies telling him what is true. The algorithm of truth is thus not the project of the human condition of the subject, whose thoughts and actions depend on human conversation.

16 Ben Williamson (2022, p. 209).

17 William C. Hazlitt (2006).

18 Tzvetan Todorov (2002, p. 140).

The curriculum is a complicated conversation, not modeled by generative artificial intelligence based in large language models[19] that emphasizes functionalized memorization[20] and machine creativity[21], is the subjective understanding – a reality that "is simultaneously historical and timeless, and its revelation requires contemplation, self-critique, and social engagement"[22] – in the realm of educational experience to resist a passive technologization and seize the possibility of achieving a responsive, ethical, humane, and international-transformational educational approach; it is a matter of interpellation through knowledge, according to the culturally, ideologically, and technologically politics of presence embedded in paste and future. In the digital present, the curriculum is moved online, and the Internet of Things (increasingly transformed into Everything) is its hidden background, whose critique will certainly include subjectivity open to worldliness (the ethical engagement) or, in a word, inquietude (the personal searching). In moving into virtual, the curriculum is technologically personalized, raising new and old inequality and denoting the urgency of social inclusion. There may be a doubt, albeit a big one, of thinking of the curriculum in a centralized way, mimicked by powerful knowledge and based on what the teacher teaches and the student learns. At the same time, its technologization creates an even further excluded hidden curriculum. Preferably, the curriculum is a hermeneutic conversation. The disquietude conversation – always an educational and curricular experience - is simultaneously individual and public, establishing the international space, deglobalized and autonomous, as the source of responsive, ethical, and humane attitudes.

19 To Noam Chomsky, Ian Roberts, and Jeffrey Watumull (2023, March 8), "the human mind is not, like ChatGPT and its ilk, a lumbering statistical engine for pattern matching, gorging on hundreds of terabytes of data and extrapolating the most likely conversational response or most probable answer to a scientific question."

20Frederic Neyrat (2023) advocates *functionalized imagination* based on past experiences and *defunctionalized imagination*, whose function is to break with reality, to produce voids and interruptions. This is the kind of imagination at play in a utopia, when we imagine progressing from a given situation to a sort of dreamland or nightmarish place, depending on the type of utopia. Utopia is an image capable of denying reality."

21 Predictive and statistical intelligence – and why not similar creativity? – is-contradicted by Noam Chomsky, Ian Roberts, and Jeffrey Watumull (2023, March 8), "Indeed, such programs are stuck in a prehuman or nonhuman phase of cognitive evolution. Their deepest flaw is the absence of the most critical capacity of any intelligence: to say not only what is the case, what was the case and what will be the case — that's description and prediction — but also what is not the case and what could and could not be the case."

22 William F. Pinar (2019, p. 182).

In the words of the Portuguese poet Fernando Pessoa[23], disquietude is a moment of eternity[24]: "Sometimes I think I'll never leave 'Douradores' Street. And having written this, it seems to me eternity. Neither pleasure, nor glory, nor power. Freedom, only freedom." Disquietude is a self-flight, a total of nothing, intersecting self-self-awareness: "At times I derive a certain pleasure (a bisected pleasure) from pondering the future possibility of a geography of our self-awareness."[25] Probably, a geography of what knowledge is of most worth to understand the subjectivity as the center of the curriculum and educational experience – wherein "I am myself"[26] and "I have a world of friends inside me, with their own real, individual, imperfect lives,"[27] in which, "I've multiplied my person,"[28] because "to live is to be the other… to be or have what we imperfectly are."[29] "Each of us is several, is many, is a prolixity of selves," the poet argues. [30]

Recognizing subjectivity means questioning the present ("I always live in the present. I don´t know the future and no longer have the past,"[31] knowing oneself ("I navigate in a self-unawareness;"[32] "Who am I to me?"[33]), taking on the particular ("The universe isn't mine: it's me,"[34]) and the sensibility ("To modify our concept of the world is to modify the world for us, or simply to modify the world, since it will never be, for us, anything but what it is for us."[35]

As a personal experience, the curriculum is the transformative educational practice of subjectivation, knowledge, and procedures throughout the study of understanding oneself, others, and their world. Curricular disquietude is

23 Fernando Pessoa (1991, p. 13).

24 Writing about eternity as an orientation towards the future, Pinar (2019, p. 324, argues that "the second side [the first is contemplation] of such consciousness is immersion in daily life, the activism of quietude – for example, ethical engagement with others." I add disquietude following the Portuguese poet Fernando Pessoa (1977)."

25 Fernando Pessoa (1991, p. 48).

26 Fernando Pessoa (1991, p. 53).

27 Fernando Pessoa (1991, p. 59).

28 Fernando Pessoa (1991, p. 60).

29 Fernando Pessoa (1991, p. 61.

30 Fernando Pessoa (1991, p. 258).

31 Fernando Pessoa (1991, p. 64).

32 Fernando Pessoa (1991, p. 69).

33 Fernando Pessoa (1991, p. 91).

34 Fernando Pessoa (1991, p. 83).

35 Fernando Pessoa (1991, p. 97).

the currere for a complicated conversation. In its autobiographical and otherness sense: "I would like my life's activity to consist mainly of educating others to feel more and more for themselves, and less and less according to the dynamic law of collectiveness."[36] It is the legacy of humanists in light of critical and post-critical conceptions, for whom education is a daily lived experience of understanding in throughout eternity.

36 Fernando Pessoa (1991, p. 251).

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Name index

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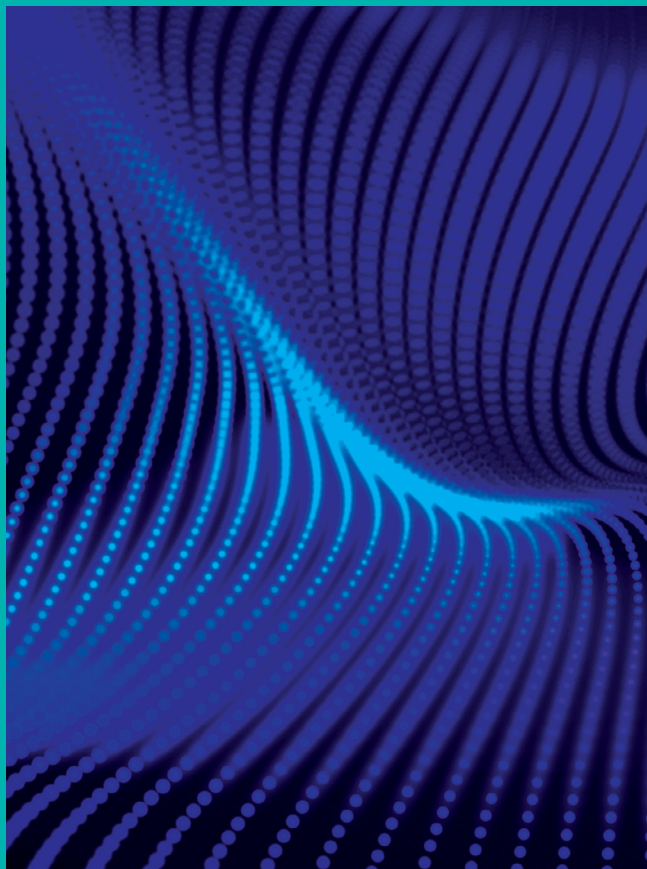
"The Curriculum of Everything advances as the eternal future in which artificial intelligence surpasses the human capacity to do but not that of understanding and feeling." Now even the "father" of Artificial Intelligence worries even those bedrocks of being – understanding and feeling - may be at risk.

Pacheco reminds us that "curriculum study is a normative question," now necessarily "with its technological dimension." Then in a stunningly synoptic sentence that students could usefully study all semester, he summarizes: "the curriculum as a socially, culturally, ideologically, politically and economically constructed practice, is a formal and informal dispositive of interwoven relationships between knowledge, power, and technology." (...) Penetrated, we become impregnated with the structures of software, as Pacheco appreciates: "Technological devices are powerful instruments of subjectivity production, moving the subject into predefined ways of knowing (...) Old-fashioned rhetoric alright, but insightfully implying we need to return to the past, when were still – sort of – human, before we were seduced by supranational "citizenship" in the software state, before we became submerged in the "curriculum of everything." Step back from the brink. Pacheco has. Let us join him" (William F. Pinar, Preface).



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