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Rise of a ‘Managerial Demiurge’: Critical Analysis of the Digitalization of Education

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False clarity is only another name for myth. Myth was always obscure and luminous at once. It has always been distinguished by its familiarity and its exemption from the work of concepts. (Horkheimer & Adorno, 2002, p. xvii)

Introduction

This chapter reflects on the seemingly self-evident, reified phantasmagoria of the digitalized future of education, which frequently appears in influential educational policy documents. We study selected policy documents in the light of the Frankfurt School critical theory to analyze and criticize modernity’s culture and social existence [1]. In what follows, we explore two main questions. Firstly, we examine how the future and digitalization of education are reified. Secondly, we explore what certain concepts of critical theory, such as instrumental reason, language universe, power, and alienation, reveal from the official education policy discourses and futures materialized in the educational policy and vision documents.

We argue that these documents are cultural and ideological artifacts, objects of power, that in fact operationalize the future they claim to merely forecast. The ultimate message of our analysis is that the mythical future these policy documents and their grand narrative speak about is the future they are textually constructing, creating the social reality in their own image.

The future of digitalized education appears progressive, rational, and inevitable. Under its trendy clothes of scientific rationality, calculability, and certainty, with an added twist of silicon chic giving the digitalized future the current unquestioned and uncriticized popular-boy-of-the-school status, is still just another *human* endeavor with old utopias and myths. The 18th century Enlightenment vision was to liberate humanity from mythical thinking and replace the myth with reason, even if it originated from the mythical thought (Horkheimer & Adorno, 2002). This chapter claims that the mythical never disappeared, but indeed presents itself again in the cloak of digitalization of education that claims to ensure us “a future.”

We are writing our chapter amid the digitalization of higher education, the current megatrend of international higher education worldwide. Digitalization highlights entrepreneurial ideas in higher education, promises mythical acceleration of fluid learning processes, and boosts the economy. As such, digitalization of higher education can be considered as part of academic capitalism, “a tendency toward overruling the genuine rules of scientific practice by the rules of capitalist competition” (Münch, 2016, p. 12; see also Slaughter & Rhoades, 2004; Cantwell & Kauppinen, 2014; Musselin, 2018; Poutanen et al., 2020).

Finnish higher education, our operational context, is an active partaker of the digitalization megatrend. The Finnish educational system is publicly funded and, in an international comparison, relatively centralized with national educational legislation. As such, it has been an easy target to top-down management and goal steering. However, “the market-based rhetoric and practices have not been able to take root in the core areas of the traditional Nordic welfare state – education, social services, and health – as easily as in other areas of society” (Rinne, Kivirauma, & Simola, 2002, p. 655). All compulsory schools follow the core national curriculum, and higher education is steered from the Ministry of Education with economic sticks and carrots. Although schools and higher education institutions have relative decision power and autonomy, the Finnish national authorities have the upper hand in educational decision making and future planning.

In Finland, as in most other European countries, business sector lobbyists along with the doctrine of New Public Management have for years expressed worries that the country’s current higher education model lacks future orientation in terms of skills, competencies, and mindsets needed in the future work life. Therefore, the business sector has lobbied business-oriented agendas to the Finnish education system (see Kauppinen & Moisio, 2008). Key themes in this have been the marketization of education, international competitiveness, and entrepreneurship education (Poutanen, Tomperi, Kuusela, Kaleva, & Tervasmäki, 2020).

Simultaneously, Finnish national administration of education began to demand more efficiency, calculability, predictability, and controllability – all the McDonaldization thesis’s general features (see Ritzer, 1998, p. 5; Rinne, 1999). Finnish sociologists of education have characterized the development from the 1990s as a shift from a relatively autonomous and democratic higher education towards a top-down governed managerial university (Rinne, 2014). The neoliberal business logic and de-democratization of higher education have been driven by changes in legislation, which in turn was motivated and advised by reports and vision documents emphasizing the necessity of such measures in order to ensure economic competitiveness in the globalizing market (Poutanen et al., 2020). Furthermore, the recent developments suggest the rise of ‘fast policy’ in educational policy-making (Hardy et al., 2020). The latest catchphrase in this business-driven, the winner-takes-it-all educational discourse has

been the digitalization of education, which, according to business-oriented spokespeople, catapults Finland's economic success.

The Myth of the Digitalization of Education: Managerial Demiurge at Work

We have used the Finnish Ministry of Education and Culture policy paper *Higher Education and Research for the 2030s Vision Roadmap* (the topic: digitalization of education) (Ministry of Education and Culture, 2019a) and its background material (Ministry of Education and Culture, 2019b) for the critical analysis of the myth of digitalization of education. From 2017 to 2019 Finnish Ministry of Education and Culture formulated a vision for higher education and research for 2030 (Ministry of Education and Culture, 2019a), which describes future challenges for all sectors of life:

Digitalization, artificial intelligence and robotization are changing society, working life, the logic of making a living, and also people's general living and competence needs. Competence is the best protection amidst changes in work, technology, and the world. If the labour market and the competence of the population are functioning well, the society can adapt to forces such as automation that change the society and work. (Ministry of Education and Culture, 2019, p. 5; translated by the authors)

The roadmap also outlines a seemingly dire present where success appears to be slipping away from our grasp and where parts of Finnish knowledge and skills base are crumbling. Improving quality, productivity, and effectiveness are considered national challenges. *Higher Education Institutes' Digivision 2030* is a new national project that aims to operationalize the education roadmap vision. All Finnish higher education institutions have signed the preliminary agreement for the development. The objective is to create a "national digital service platform" with "guidance based on digital pedagogics, the learner's path and shared data," "AI solution as an aid in guidance," and "support for change management for higher education institutions" (Higher Education Institutes' Digivision 2030, 2019, p. 3).

We argue that such vision documents and roadmaps are primary tools in creating a specific and powerful discourse of the digitalization of education. After Mills (2000), we describe these documents with the metaphor *managerial demiurge* since they control higher education's material resources and public development. As Mills suggested, at first glance, they appear as rational but soon become fetishized, and in the end, manipulate discussion and development. We have applied document analysis (Bowen, 2009; Gross, 2018) and the Foucauldian idea of 'eventualization' in a close reading of the documents (Foucault, 1996; Miller & Rose, 2008). A primary function of 'eventualization' is simply to problematize the self-evident, to question "those self-evidences on which our knowledges, acquiescences and practices rest" (Foucault, 1996, p. 277) [2]. Using this methodological idea, as Miller and Rose (2008) have suggested, we move from *why* to *how*, that is, how the myth of digitalization of education is constructed.

In what follows, we analyze the aforementioned policy documents of digitalization of education in the light of four concepts from critical theory: instrumental rationality, a closed discourse universe, power, and alienation. In reading the following analysis, one should keep in mind that the documents are part of the 'educational–digital industrial complex,' by which we mean an informal alliance between the educational administration and business sector:

especially a partnership between the public education, intergovernmental organizations and ed-tech companies [3]. Their combination affects national educational policies and practices. Our interest is to understand how these powers are discursively constructing the myth of the digitalization of education.

Policy Document as Manifestations of Instrumental Rationality

As tools to achieve the goals, the *Higher Education and Research for the 2030s Vision Roadmap* introduces development programs. Two of them ('Higher education reform and the environment for digital services' and 'A higher education community with the skills to deliver the best learning outcomes and settings in the world') refer to the digitalization of education. They suggest that digitalization is a major force changing society and will impose new operating methods and educational content. In the future, higher education should leverage digitalization for new pedagogical thinking and create a service environment that will improve accessibility, flexibility, continuous learning, and international collaboration in the university sector. The aim is to introduce new pedagogical approaches, counselling services, digital content, and modularity. The vision document argues that these changes lead to increased numbers of degrees and international students and improve the overall access to education. Themes that spur from these developments are *demand-* and *anticipation-led education*. *Continuous learning* is seen as a cornerstone of the new learning products. (Ministry of Education and Culture, 2019, p. 17)

In a critical look, these sorts of policy documents fulfill the fundamental characteristics of *instrumental rationality*. As Brookfield (2005) points out, referring mainly to Max Horkheimer's thinking: "[t]his form of thought is seen in the belief that life can be ordered and organized into mutually exclusive, yet interlocking, categories." Furthermore, instrumental rationality "is applied to solve problems of how to attain certain short-term social and economic objectives. In the scramble to achieve short-term ends, the application of reason to abstract universals such as justice, equality, and tolerance becomes increasingly impossible." At the same time, thinking is objectified and fetishized, and it achieves an existence of its own, separated from the thinker. (p. 70–71; Horkheimer, 2002; 2004).

Furthermore, the vision report refers heavily to the OECD's working paper "Collaboration, Alliance, and Merger Among Higher Education Institutions," written by a consultant who has also worked for the World Bank. The report states that the recommendations are only its author's views. However, in the vision document, the consultant's opinions and rhetoric are taken as indisputable facts. Thus, the OECD's ideas are brought to national educational debate by interpreting the recommendations as factual statements. In this 'domestication' process, local educational administrators and bureaucrats tend to be active agents who put a new element as part of an existing field of specific activities (Alasuutari & Alasuutari, 2012).

In our case, 'to be an active agent' means to interpret suggestions as facts. It is essential to note this connection since the OECD is among the most powerful international players in education policymaking (see Ball, 2012; Lingard & Sellars, 2016; Prytz, 2020; Sellars & Lingard, 2013; Verger, 2013). As Miettinen (2019) has pointed out, the OECD's data formation and presentation of results differ from the scientific practices. The organization's reports do not usually refer to scientific studies but their own previous publications. However, the OECD has

left its mark on the *Higher Education and Research for the 2030s Vision Roadmap* in that the Finnish document resembles the OECD's standard rhetoric. The seemingly concrete language makes the vision roadmap appear reasonable and logical while its concreteness hides the vagueness of the used concepts and the assumptions these concepts are based on (see also Miettinen, 2019). The overall approach of the OECD and the like seems to be that a range of global firms "who will benefit hugely from any business that might come their way as a result of changing pedagogical practices, learning materials, testing material, ongoing professional development" (Robertson, 2016, p. 281; Ball, 2012).

Closing the discourse universe

Intergovernmental and governmental organizations' reports and general communication on e.g., news sites and technology company blogs describe a future disrupted by an uncertain labor market and fueled by digitalization and automation. Future jobs are seen as something we do not know about yet, but despite the obscurity, it is firmly believed that new competencies and skills such as entrepreneurship and teamwork will be needed in "the future." This argumentative logic also often emphasizes the need to change teaching and learning practices as "the traditional forms" of education cannot prepare "the learners" for the future. Thus, the education sector is destined to employ new ways of teaching and learning driven by digitalization. According to this logic, digitalization is affecting the future of competence requirements and work, therefore we should leverage digitalization to create future employment. In sum, due to a different kind of a future where digitalization and automation have "disrupted" most jobs, education needs to change in order to serve such a future better, and digitalization should be the driver of such change in education.

The contemporary language that permeates the future of education and society is deterministic, but more importantly, a type that already constructs and normalizes "a future." Marcuse describes a *closed discourse universe* where "[m]agical, authoritarian and ritual elements permeate speech and language" (Marcuse, 2007, p. 89). Through continuous repetition, specific meanings of a concept are hammered in. Or, as Marcuse (2007) describes it on grammatical level: "A specific noun is almost always coupled with the same "explicatory" adjectives and attributes makes the sentence into a hypnotic formula which, endlessly repeated, fixes the meaning in the recipient's mind. He does not think of essentially different (and possibly true) explications of the noun." (p. 94). How the noun is used in public policy documents and opinions, its analytical structure becomes insulated and governed by disruptions against it (Marcuse, 2007, p. 91-92).

Digitalization is usually described with surprisingly univocal sentences in various sources, primarily through its *positive potential* to disrupt and transform education. Still, when following the path to these arguments, all too often there lies not much else behind them than other sources that argue the same. Marcuse (2007) writes:

The concept tends to be absorbed by the word. The former has no other content than that designated by the word in the publicized and standardized usage, and the word is expected to have no other response than the publicized and standardized behavior (reaction). The word becomes *cliché* and, as cliché, governs the speech or the writing (p. 90)

Digitalization has become a vague but solidified and presupposed concept in public debate, a cliché. As Marcuse (2007) emphasizes, “communication thus precludes genuine development of meaning” (p. 90). As digitalization is continuously described through its positive potential, its meaning becomes taken for granted, and further development of its other potential meanings becomes more difficult or ceases altogether. Therefore, the claim that *digitalization can transform education*, “has lost all cognitive value and serves merely for recognition of an unquestionable fact” (Marcuse, 2007, p. 98). Even if not concretely present in the message, this message’s positivity is already taken for granted.

Furthermore, the cliché begins to hide under itself that which actually takes place. Even if contradictions appear between the truth of the noun and the truth of everyday experience, these can be ignored or even turned into positive explanations. This can take place because, as Marcuse (2007) writes, “[t]he ritualized concept is made immune against contradiction” (p. 92). Even more, authoritarian, standardized language solidifies a concept and makes contradictions, such as “war is peace” seem reasonable, logical, and perfectly natural (Marcuse, 2007, p. 92). Similarly, the claim that digitalization has the potential to transform education is increasingly presupposed as something positive, which also affects the ways it is studied. Still, there are many accounts that reveal the mismatch between the grand narrative of the potential of digitalization and the actualization of that potential in education (e.g. Mertala, 2019), be it technology-enhanced learning in general (Bayne, 2015), tablets (Mertala, 2019), datafication (MacGilchrist, 2019) or student information systems (Heimo, Rantanen, & Kimppa, 2016). However, it has been noted that such critical accounts have largely been ignored (see Selwyn, 2016; 2011). This can easily take place due to the presupposition of positivity and progress of technological development; as always, “the next version of the software will be better”.

A closed deterministic language universe is an example of structural violence in education. Administrators’ and experts’ reports affect directly governmental policies and teachers and students who have to live up to often unrealistic expectations and acknowledge with regret that they cannot actualize the “potentials” demanded in the digitalization of education documents. As Marcuse (2007) writes, the use of functional language suppresses society’s history, but more importantly, also its future. The development of digitalization ignores the long unrealized history of overly positive technological determinism while deterministic language closes the creation of broader meanings. In the case of digitalization, the prevailing meaning – the “truth” of the increasingly fixed and presupposed noun “digitalization” – is the meaning assigned by ed-tech companies, “technology enthusiasts” and administrative demiurges, not necessarily the meaning teachers and students could make. Veering beyond this public truth “beyond the closed analytical structure is incorrect or propaganda” (Marcuse, 2007, p. 91). As Marcuse (2007) aptly summarizes

In exhibiting its contradictions as the token of its truth, this universe of discourse closes itself against any other discourse which is not on its own terms. And, by its capacity to assimilate all other terms to its own, it offers the prospect of combining the greatest possible tolerance with the greatest possible unity. Nevertheless, its language testifies to the repressive character of this unity. This language speaks in constructions which impose upon the recipient the slanted and abridged meaning, the blocked development of content, the acceptance of that which is offered in the form in which it is offered. (p. 94)

Operationalizing and legitimizing the future through exercising power and violence

The Roadmap for Implementing Vision 2030 document's background material, "Where we are now" (the literal meaning in the Finnish version is closer to "a shared situation picture"), narrates a dire future where automation and digitalization have taken or changed jobs and created an unstable labor market. To tackle this, a certain set of competencies are needed, together with efficient ways to construct these competencies (i.e., digitalization of education). Hence, the call for action (five development programs to rule them all, of which Digivisio 2030 is one materialized project), otherwise we must bear the consequences, which are only generally described (missing out in the global competition), but indeed, ominously implied.

Digitalization of education and competencies are intended to operationalize the vision and make the desired future more certain. The means receive their legitimization through the described future *challenges* which is a narrative built from the now and the suggested future. In short: this story of the future is certain kind of power and violence (Benjamin, 2002). As no one can really know what the future brings, the described future is a narrative myth, which is used to operationalize technocratic faith. This operationalization takes place through reacting to a myth, something that does not exist (the future), and thus bringing it into existence through those reactions. The following presents how it is glued into a seemingly democratic co-creation process.

Both 'Higher education and research vision 2030' and 'Digivisio 2030' proudly emphasize that stakeholders have been involved in constructing the future, in addition to developing the ways to get there. This claim of "involving stakeholders" further legitimizes the vision and the means, as it dresses the process in democratic clothing – now, to question the vision and the means would be to go against *a shared* vision and means. But in fact, the stakeholders who have been 'involved' are not given a proactive role in imagining and shaping the future, instead, they are assigned the task to negotiate *a reaction* to a future that has already been determined, although it not yet exists. Now the parties, the Ministry of Higher Education and the Digivisio 2030 working group who drive the technocratic future, are able to speak with the voice of the involved stakeholders (i.e., everyone who is important). Still, what is left unspoken is, for example, in what ways exactly the stakeholders were involved (e.g., in the workshops described in the vision background documents), whose voices were heard, but more importantly, how the future was already prescribed at the moment the stakeholders were involved. Luckily, the background document that summarizes the workshops is freely available (Ministry of Education and Culture, 2017). It describes them as follows:

The aim of the workshops and the Foresight Friday event was to discuss 2030 objectives, *enframed by the large megatrends*. The workshop began from futures that rule out each other and *together set objectives that best fit the world of the digital global economy*. (p. 9; translated from Finnish by the authors, italics added).

The document presents several predesigned workshop canvases, one of which themed as *Quality and contemporary education and competence*, with questions such as: "Think about how the drivers of change and megatrends (such as digitalization) affect" and "What kind of competence is needed?" As such, the conditions of "global megatrends" and "digital global

economy” have power over imagination in the workshop, and thus, the outcomes are already violently submitted under their rule. Therefore, it is unsurprising that the general outcome of the workshop can be described as to ensure employment in a precarious global labor market with ever-matching competencies and continuous learning, supported by digitalization, as these were the preselected ingredients given to the stakeholders to use for forming the future vision.

According to Benjamin (2002), there is no “power” or “violence” as such, but concepts are always temporal, receiving their meaning as part of historical situations (see also Lindroos, 2014). This means that each era should redefine their meanings that transform during historical and political events (ibid.). Operationalizing and legitimizing the future through such governmental development programs which are justified with international and intergovernmental organizations’ reports, presents a global flow of power and surprisingly homogeneous ideas. When following this flow deeper, for example, by a critical examination of the sources used in such reports, one finds not *futures* but *a future*. It is often driven and justified by technology companies, enthusiasts, and futurists in their terms. This is exemplified in a recent report by the Finnish National Agency for Education (Nyyssölä & Kumpulainen, 2020) that describes the future of primary education in Finland and backs up its claims of digital future and its potential with several unscholarly and commercial technology blogs, often written by vendors in whose direct interests it is for readers to buy the future vision they portray. All of this raises a question: if no one really knows the future, how can it be globally so homogeneously univocal? – unless it is set and constructed now in the present. Hence, once again, this constructed myth of the “future” is sovereignly exercising power over how other potential *futures* of education might come forth.

Digitalization Policy Documents as Sources of Alienation

Higher Education and Research for the 2030s Vision Roadmap and related documentations are textualities constructing an objectified and alienating reality of the already planned and designed world. As such, as general discursive templates of the educational–digital industrial complex, they form a fundamental part of governmentality as a set of diverse combinations of governing mechanisms and technologies of power executed by governmentalized states or state unions (Lemke, 2000; Rantala & Suoranta, 2008).

In understanding the vicious effects of policy documents on digitalization in higher education as sources of students’ and teachers’ alienation, we need to refer to Marx’s early writings on political economy. The concept of alienation originally derives from philosopher G.W.F. Hegel, but it was Marx who made it famous in the 19th-century social sciences. In Marx, alienation means that the majority of people have lost control of their lives. In a capitalist class society, they cannot reach their full potential. Their relations with each other are distorted. They work for someone else’s benefit and feel that they cannot associate with or be an integral part of society. In his *Economic and Philosophical Manuscripts of 1844*, Marx writes bluntly about the logic of capitalism:

Worker sinks to the level of a commodity and becomes indeed the most wretched of commodities; that the wretchedness of the worker is in inverse proportion to the power and magnitude of his production; that the necessary result of competition is the accumulation of capital in a few hands, and thus the restoration of monopoly in a more

terrible form; and that finally the distinction between capitalist and land rentier, like that between the tiller of the soil and the factory worker, disappears and that the whole of society must fall apart into the two classes – *property owners* and *propertyless workers*. (Marx, 1932, pp. 28.)

As Marx further notes, the more wealth the worker produces, the poorer she or he becomes: “The worker becomes an ever cheaper commodity the more commodities he (*sic*) creates. The *devaluation* of the world of men is in direct proportion to the *increasing value* of the world of things. Labor produces not only commodities; it produces itself and the worker as a *commodity* – and this at the same rate at which it produces commodities in general.” (Ibid.) Policy documents on digitalization are products of labor which Fuchs (2014) describes as digital labor and, as such, in Marx’ view, “*something alien*” (Marx, 1932, pp. 28–29).

However, workers are not to blame for their alienation and general position in the dominant hierarchy. Based on private ownership, capitalism forces people to submit to the working-class in the division of labor which turns them into objects (or mere commodities) causing political, social, and individual alienation. In other words, in a class society, people’s minority, or “a dominant class controls human minds, bodies, social relations, the work process, the economy and the whole of society” (Fuchs, 2014, p. 349.) Furthermore, as Marx points out, in capitalism, “work is value-generating abstract labour” abstracted from human needs. It serves “the structural needs of capital as self-valorizing value through the exploitation of labour.” (Fuchs, 2016, p. 17.)

In capitalism’s exploitation of labor, work is commodified, and in Marx’s thinking, the commodity-form becomes capitalism’s primary social relation characterizing all aspects of human endeavor. Policy documents on digitalization of higher education (including digitalization programs and digital visions) are parade examples of a capitalist commodity-form and the general tendency of the educational sphere’s alienation at least in three ways.

First, they represent commodified forms of human labor and rationality. In Marx’s terms, they are abstract labor and, as such, part and parcel of capitalism as a “system that strives to turn everything into commodities (commodification) so that it is an object of abstract labour and can be exchanged with money in order to create profit” (Fuchs, 2014, p. 348). Commodity-form and alienation are evident in the documents’ general view of the educational world, e.g., when future universities are labeled as “datafied universities” and defined as “service organizations” instead of critical teaching and learning institutions. “Service organizations” also implies that students (or their future employers?) are customers and teachers are mere service providers. In this spirit, it is possible to proclaim the following grandiose goal: “A digital service environment development program will be launched, which will create a set of digital services consisting of universities’ own and common solutions that serve degree studies and continuous learning.”

Second, the alienation concerns the producers who write these documents. They are often bureaucrats in public administration or well-paid consultants, to whom the profession has become a paycheck, and who have subsumed themselves as demoralized tools or servants in the service of power, bureaucracy, and edtech business. Nevertheless, they are part of commodified labor. Their work is separated from its results and the means of production and their identities and life. Writing a policy document is another job to be done, more or less

irrelevant to them—their misery grows, as Marx notes, “with the power and volume of their production” (ibid.). Their work is a real example of capitalism’s functioning as dead labor and surplus-value creation. In Marx words, “capital is dead labour, that, vampire-like, only lives by sucking living labour, and lives the more, the more labour it sucks” (Marx, 1887, p. 163)

Third, alienation does not concern only human beings as capitalism’s dead labor but also the language used in the policy documents. New mechanistic rhetoric derives primarily from the engineering sciences and their jargon of project management. Features of the digital rhetoric without human beings’ meaning-making and pedagogical interaction include such buzzwords as ‘datafication’, ‘learning analytics’, ‘interoperability of teaching and studying information’, ‘service channel’, ‘smooth knowledge flow’, ‘modular study supply’, ‘study path’, ‘digital service environment of higher education’, ‘joint action plan’, and ‘content production collaboration’. At the core of this new rhetoric is one magic verb: to develop. Everything must be developed for development’s sake as if there was nothing valuable in the current higher education. In an incessant development, there seems to be a means but no ends. In this sense, the datafication and digitalization rhetoric have no meaning over themselves, as the following quotes demonstrate.

The goal is to implement a digital services ecosystem that serves degree programs as well as continuous learning. The ecosystem will consist of in-house and shared solutions and a service channel to connect these. Compatibility of data sets, smooth national data flow and shared policy are essential. (...) Modularity in curricula and study programs is required in order to enable personalized and flexible study paths and to develop the recognition of previously acquired competences. (Ministry of Education and Culture, 2019a, p. 21, translated by the authors.)

The document’s clause, “unification of contents through datafication and learning analytics,” means that higher education and its ‘contents’ must follow the same-size-fits-all -principle (while at the same time in other parts, claiming ‘personalization’). In other words, in the digitalized future there is even less face-to-face dialogue in the universities, so crucial in developing critical consciousness. “Modular knowledge and curricula” mean that teaching is provided in easily chewed pieces, learning will be passed to learner-consumers as sliced into easy-to-follow parts, and knowledge served in containers, in ready-made packages that can be exchanged for other packages. Above all, the documents emphasize developing work-life competencies, ‘fluid learning,’ and cost savings.

The combination of digital courses and classroom-based teaching requires new types of content that enhance employability skills and enables flexible degree programs and continuous learning. Cooperation and division of labor will diversify students’ study paths and skills, support the quality of education, and achieve cost savings. (Ministry of Education and Culture, 2019a, p. 21, translated by the authors.)

The student-centered rhetorics employed in the documents may at the first glance look like an emancipatory turn in the delivery of higher education. Using digital technologies such as artificial intelligence and algorithms for the *personalization of learning* and *diversification of*

learning paths indeed sound like it. However, a closer look reveals a different reality behind the words. Students are, in fact, less and less able to fulfill their potential as the study paths that used to be open-ended and messy are now predetermined and directed by ‘tireless and fearless AI tutors’ (Ministry of Education and Culture, 2019b, p.22) whose recommendations are based on computer-readable behavioural data rather than the unique personal interests, motivations and talents of human beings. After all, the documents do not talk about personalization in the humanistic sense of the word, as the result of these algorithm-driven processes will always be bulk, always predetermined, always aiming at the same desired outcome: a more efficient acquisition of competencies that serve the needs of the marketplace and the economy. A humanistic personalization of learning may lead to the flourishing of the individual. In contrast, the personalization described in these documents most probably leads to the alienation of the individual and the thriving of markets.

Marx believed that alienation reached its peak in the position of the 19th-century factory worker who was merely a cog in the machine. In the factory, the worker was separated from the product of labor, from the means of production, and, of course, from the profits. However, as Fromm (2004, p. 45) has noted, Marx could not foresee that there will be alienated classes other than the working-class, namely the middle and upper-middle class. He did not realize that “alienation was to become the fate of the vast majority of people, especially of the ever-increasing segment of the population which manipulate symbols and men (*sic*), rather than machines” (ibid., p. 45). Thus, Fromm argues that the middle class can be even “more alienated today than the skilled manual worker,” for they need to sell not only their labor power but also their personalities in order to maintain their living standards. In a more recent study, part of the middle class in the office and administrative jobs (who call themselves “flunkies,” “goons,” and “duck tapers”) say that their work is not at all useful to anyone. They also state that they are unhappy in their jobs, and work is actually a bullshit job (Graeber, 2018).

These middle class “symbol manipulators” worship corporations and the capitalist system, false gods in Fromm’s view. However, Fromm clarifies that “as far as consumption is concerned, there is no difference between manual workers and the members of the bureaucracy,” and notes that nowadays both have more to lose than their chains: a well-paid job and a consumerist lifestyle. They “are not related to the world productively, grasping it in its full reality and in this process becoming one with it.” In contemporary society, people are – perhaps even without realizing it – ready to “worship things, the machines which produce things—and in this alienated world they feel as strangers and quite alone” (Fromm, 2004, p. 57).

Conclusion

We have suggested in this chapter, based on our empirical analysis of the Finnish national educational policy documents, that digitalization of education is a part of managerial demiurge’s administrative apparatus in the myth-making. First, the documents are ultimate manifestations of instrumental rationality. Second, the documents form a closed discourse universe that determines the totality of an educational realm. They are distant from the teachers’ and students’ reality and leave no space for teachers’ and students’ agency. Third, they use discursive power by constructing a narrative myth of the educational-technological future, which cements the general technocratic faith. Last, the documents represent a capitalist

commodity-form and partake in creating an estranged and alienated higher education sphere. As such, these documents are powerful objects of transnational educational bureaucratic apparatus which constructs social reality as its own image. As Lefebvre (2002) points out:

Bureaucracy tends to operate for and by itself. By establishing itself as a 'system', it becomes its own goal and its own end; at the same time, in a given society, it has real functions, which it executes more or less effectively. Thus it modifies the everyday, and this too is its goal and its aim. However, it never succeeds in 'organizing' the everyday completely; something always escapes it, as bureaucrats themselves ruefully admit. The everyday protests; it rebels in the name of innumerable particular cases and unforeseen situations. (p. 300)

As a result, students and teachers are losing their possibility to act as active agents, transformative intellectuals, and dissidents in their field of expertise. Instead, they are in danger of becoming objects of an alien world created over and against them. More often than not, the policy documents on the digitalization of education seem to ridicule the students' and teachers' intellect as moral agents of future education and history-making in general. They do not encourage students and teachers to "understand the everyday life from the perspective of those who are the most powerless in our society so that society can be transformed in the interest of a more humane and just existence" (McLaren, 2015, p. 141). Instead, they form their own discursive universe without other reference points than themselves and the monetary necessities beneath the discursive surface. Thus, they act as myth provoking demiurges to fulfill Marx's (1932) prophecy: "the *alienation* of the worker in his (or her) product means not only that his (or her) labor becomes an object, an *external* existence, but that it exists *outside him* (or her), independently, as something alien to him (or her), and that it becomes a power on its own confronting him (or her). It means that the life which he (or she) has conferred on the object confronts him (or her) as something hostile and alien." (p. 29.)

Digitalization of education receives its justification from what is not yet here - as if it was almost already here, but yet to be realized "in the future." This future is often constructed by intergovernmental organizations and technology corporations, together with consulting firms (see also Williamson, 2021; Mirrlees & Alvi, 2020). Governmental organizations use their visions in their reports and their future workshops, which are already enframed within and geared towards an already decided digital future. Perhaps, in the final analysis, digitalization of education is a project for *certainties*, drawing our attention away from the fact that people – us as educators – are constructing the always undetermined future. Digitalization shows itself as progress, but it bears kinship with old history myths, especially with Enlightenment: to seek means to make the world more predictable and more manageable with knowledge, the myth of Enlightenment has now the face of digitalization. And, as Fromm puts it, the fear is that a new spectre is stalking in our midst:

A completely mechanized society, devoted to maxi-mal material output and consumption, directed by computers; and in this social process, man himself [sic] is being transformed into a part of the total machine, well fed and entertained, yet passive, unalive, and with little feeling. (...) Perhaps its most ominous aspect at present is that we seem to lose

control over our own system. We execute the decisions which our computer calculations make for us. We as human beings have no aims except producing and consuming more and more. We will nothing, nor do we not-will anything. (Fromm, 1968, p. 1).

The ideological base of the myth-making discursive apparatus of education's digitalization is the will to fight and abolish *uncertainties* with administrative control and the managerial demiurge's operations (see also Timcke, 2020). For those who have faith, the chosen ones, in the digitalization of education, such working machinery appears as an effective and reliable assembly line for the future. Furthermore, due to the suggested precariat future job market, continuous and lifelong learning is needed, with a system that unites the education sector and the industry together as one machinery. Thus, the certainty of a positive future of work is determined and ensured. Managerial demiurge works, as described, "to benefit the learner" and "the learner in mind", but only to the extent where it stays within the frame of digitalization, competencies, and the determined future. The individual is involved and attached in the machinery by appealing to the narrative of *benefits*, for who would dare to say they do not wish for a better future? The presuppositions of the future of digitalized education and its alternatives remain unquestioned.

Endnotes

[1] By no means the critical theory is a solid framework and that all members of the Frankfurt school would have accepted it as such and interpreted it as an all-encompassing explanation of the social reality. Instead, different Frankfurt school theorists interpret it differently at different times, not to mention those who have labeled their intellectual works as a critical theory at other times and places. It is altogether questionable if there ever was a conventional idea or essential interpretation of the critical theory, only various interpretations. (See Peters, Olssen, & Lankshear, 2003; Wiggerhaus, 1994, Jeffreys, 2016). We are inclined to think that critical theory as a critical reflexive and self-reflexive project, means that "prior to the acquisition of knowledge we must first inquire into and establish what may or may not count as knowledge" (Peters, Olssen, & Lankshear, 2003, p. 17). Furthermore, self-reflexivity includes an understanding that we as researchers are always in the same world as our study objects and that we need to take our positionalities into account in our interpretations. Thus, like Peters, Olssen, and Lankshear (2003, p. 18) state, "'critical' as it occurs in 'critical theory,' was used to refer to social theory that was genuinely self-reflexive: that is, theory that could account for their own conditions of possibility and for their potentially transformative effects. The other features of critical theory have been seen to include its explanatory, normative, and practical dimensions: it must provide empirical and testable accounts of social conditions (focusing on the causes of oppression); it must aim toward change for the better, an alleviation of the human condition or 'emancipation'; and it must do so by providing a better self-understanding of the social agents who aim at transformation."

[2] "What do I mean by this term? First of all, a breach of self-evidence. It means making visible a singularity at places where there is a temptation to invoke a historical constant, an immediate anthropological trait, or an obviousness which imposes itself uniformly on all. To show that

things ‘weren’t as necessary as all that,’ it wasn’t as a matter of course that mad people came to be regarded as mentally ill; it wasn’t self-evident that the only thing to be done with a criminal was to lock him up; it wasn’t self-evident that the causes of illness were to be sought through the individual examination of bodies; and so on. A breach of self-evidence, of those self-evidences on which our knowledges, acquiescences and practices rest. This is the first theoretico-political function of ‘eventualization.’” (Foucault, 1996, p. 277.)

[3] The concept of the educational–digitally industrial complex stems from C. Wright Mills’s influential works on the rise of the administrative class and the power elite (Mills, 2000). Mills defined the power elite’s core as the men who move in and between three circles: the industrial, the military, and the political (Mills, 2000, p. 289). The concept has its origin also in US President Dwight D. Eisenhower’s speech in 1961, where he used the expression to express his worry about the balance of power in making military decisions in the US; who had the power to make decisions: democratically elected politicians or business executives? Later, e.g., Picciano (1994) and Brightman and Gutmore (2002) have used the concept ‘educational-industrial complex’ in referring to the decision-making processes in the use of information technologies in education.

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