

Critical Digital Pedagogy: Alternative Ways of Being and Educating, Connected Knowledge and Connective Learning

Lucy Lunevich

School of Engineering, RMIT University, Melbourne, Australia

Email: lucy.lunevich@rmit.edu.au

How to cite this paper: Lunevich, L. (2022). Critical Digital Pedagogy: Alternative Ways of Being and Educating, Connected Knowledge and Connective Learning. *Creative Education*, 13, 1884-1896. <https://doi.org/10.4236/ce.2022.136118>

Received: April 30, 2022

Accepted: June 18, 2022

Published: June 21, 2022

Copyright © 2022 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Over the last twenty years, technology has reorganized how we live, how we communicate, and how we learn. Learning needs theories that describe learning principles and processes, and should be reflective of underlying social environments. This work presents a research investigation if education can remain relevant in the digital era. Two conflicting and complementing concepts “critical pedagogy” and “critical digital pedagogy” have been discussed to establish a foundation for the new forms of teaching practices related to a virtual learning environment. It focuses on how our teaching practices can be re-imagined to become a crucial part of the socialisation process with students. In this system, students are encouraged to become reflective learners and think critically about the current conditions of the world and how to make it a better place for all. It discusses the role of the teacher in the 21st century and how it has evolved dramatically in recent times. The work is based on the independent research conducted by several universities in Berlin, New York and Moscow, which found that students do not expect their teachers to know everything; instead, to have somebody prepared to listen to students, have mentoring and coaching capacities and willing to offer extra time for consultations.

Keywords

Critical Digital Pedagogy, Behaviorism, Cognitivism, and Constructivism, Transformative Learning, Blended Learning Environment, Role of the Teacher, Intellectual and Ethical Development, Creative Teaching, Join Learning Process

1. Introduction

In the philosophy of education, it is accepted that knowledge is not objective, but rather constructed by humans. Knowledge is imperfect, incomplete and grows through exposure to experiences. The condition of knowledge production and acquisition at the heart of pedagogy provides the knowledge, skills and attitudes for students to read history in ways that enable them to reclaim their identities in the interest of constructing forms of life that are more democratic and more just (Boronski, 2021; Galloway, 2019). As emphasised by advocates of critical digital pedagogy, connectivism becomes a curricular tool to revise the social order and promote social justice (Luke, 2017; Jackson, 2008). According to Holloway (2002) and Field (2005), a special focus related to critical pedagogy is the areas of multiculturalism, feminism and globalism (Holloway, 2002; Field, 2005). Critical pedagogy results in the transformation of learning which has as its goal the growth of active learners through the construction and reorganisation of cognitive structures and better connectivity (Dreamson, 2021; Boronski, 2021). According to (Holloway, 2002; Boronski, 2021), critical digital pedagogy advocates the importance of re-visioning a more just world order across both cultures and political units. It suggests that education can establish a civil society that moves beyond the destructive effects of competition among nation-states sometime resulting in such unhealthy side effects as environmental destruction (Boronski, 2021; Luke, 2017).

The specific research question that has been investigated in this article is *can education remain relevant in the digital era* when students become co-creators of knowledge production and acquisition? In response to this question, two aspects of modern education were examined: transition of critical pedagogy into digital sphere with the context of blending learning; and can this environment create transformative learning, thereby facilitating the intellectual and ethical development of learners?

2. Can Education Remain Relevant in the Digital Era?

2.1. Role of Teacher in the 21st Century

As humanity stepped into the 21st century, the COVID-19 pandemic came to represent a breaking point during which the global community came to appreciate equally important professions: scientists and teachers (Chernigovskaia, 2022; Черниговская, 2020). Our future, social order, economic development, environmental awareness, social progress and sense of “us” depend on scientists and teachers. Recent research conducted by several universities in Berlin, New York, and Moscow independently found that students do not expect their teachers to know everything (Черниговская, 2020). Instead, they want to have teachers who are prepared to listen, who can understand their difficulties including personal problems. Teachers who have mentoring and coaching capacities who are flexible with their time and can design courses around flexibility for students (OECD, 2021; Chernigovskaia, 2022; Черниговская, 2020).

Many students mentioned that they highly regard teachers with developed interpersonal skills and who are easy to talk to. It became a media attraction when, during an extended lockdown, an 8-year-old schoolboy told his grandmother, “I do not want you to teach me! I want my teacher to teach me!” It became immediately apparent how hard the pandemic was for children and their caretakers. As Plato describes the “gift of teaching,” a passion and love of teaching can translate into student engagement, motivation, and interest in a subject. The role of the teacher in the 21st century has evolved dramatically under the pressure of artificial intelligence, robotics, data economy and greater demands from students the 4C skills of the 21st century: communication, collaboration, critical thinking and creativity as well as practical knowledge (Chernigovskaia, 2022; Boronski, 2021; Lunevich, 2021b).

Historic trends of human development over the past 100 years have shown that the more students can learn from open sources, such as the internet, the less time they will spend in structured learning environments like universities. Consequently, the more students learn from open sources, the more universities will face a demand for knowledge (Черниговская, 2020; Lunevich, 2021b). It is expected that students will not only demand knowledge that is specific to certain disciplines, but also demand knowledge related to evaluating new information, comparing concepts, and determining what is right and what is wrong (Черниговская, 2020; Boronski, 2021). It is apparent that education systems will introduce robots and artificial minds into the teaching space in order to assist with the teaching process and design better learning spaces (Lunevich, 2021a, 2021b; Traxler, 2021). An alternative learning environment will create new ways of accessing knowledge in real-time, spontaneously, where students and teachers learn from each other. What is the teacher’s role in the classroom? Perhaps it is the role of an observational researcher: one who observes the learning process, observes students and monitors classroom interactions, whether face to face or online (Lunevich, 2021b; Galloway, 2019).

2.2. Transformative Learning

Other research indicates that people born within the last 20 years have higher cognitive learning abilities and demand more intensive learning activities (Chernigovskaia, 2022). This very much contradicts the behaviourist principles described Skinner (1950), who suggests that “human beings are highly developed animals who learn in the same way that other animals learn.” (Skinner, 1950). According to behaviorism, humanity does not stand above or outside of nature; rather, humanity is a part of nature. Scientists can refine teaching techniques through experimentation with animals, and these techniques can then be applied to human beings. According to Skinner, education is a process of behavioural engineering (Skinner, 1950). The tasks of education are to create learning environments that lead to desired behaviours. Schools and other educational institutions are therefore viewed as ways of designing a culture. The teacher’s role is to

create transformative learning environment.

Transformative learning occurs when students are challenged intensively, leading to upper level intellectual and ethical development. For instance, when students learn to deal with uncertainty and relativism, learners experience a significant positive emotional engagement in their learning activities (Buber, 2011; Lunevich, 2021a, 2021b). Teachers try to maintain supportive relationships, establish cooperative and collaborative learning goals, and minimise the sorts of pressures that dispose students towards performance or work avoidance. When these conditions are created in a classroom or a virtual classroom, students can focus their energies on learning without becoming distracted by fear of embarrassment or failure, or by resentment of tasks that they view as pointless or inappropriate (Buber, 2011; Galloway, 2019; Crowther, 2022).

The learning environment of transformative learning can be characterised when teachers assisting students to achieve a sense of flow: goals are clear and compatible, feedback is immediate, challenges are easy, and students can stretch their limits (Dahlin, 2014; Crowther, 2022). The whole learning environment is set up with the expectation that students will succeed (Jackson, 2008; Lunevich, 2021a, 2021b). Higher-order thinking skills and learning processes occur via sharing a love of teaching and learning, sharing enthusiasm and exchanging ideas (Lunevich, 2021a; Boronski, 2021). The next step in this process is the analysis of information by learners, problem-solving activities, the analysis of real events and receiving feedback from the teacher. In this process, students engaged in motivated and active learning with immediate feedback from the teacher. Transformative learning is deep, and through constant changing of learning activities and analysing of information, it offers new constant challenges for students. As soon as they solved one problem another follows to consider. For transformative learning to occur, the following conditions must be met: 1) course learning content should be well developed and suited to course objectives; 2) the teaching approach should be aligned with assessment tasks and course objectives; and 3) the level of student engagement should be appropriate to course objectives (Lewis, 2012; Cowden, 2019). Furthermore, trust between teacher and learners is the foundation of transformative learning (Jackson, 2008; Stern, 2017).

3. Alternative Ways of Being and Educating

3.1. Critical Pedagogy

Critical pedagogy is, indeed, a “problem-posing” form of education: it presents the rationale that if we can identify the reality of the problems we face, then the identification of practical solutions will follow by instigating collective action for positive societal change, as studied in Freire’s concept of alternative emancipatory education (Freire, 1970; Freire, 1969; Galloway, 2019). However, an understanding of the problem does not automatically create a solution in the form of a recipe for emancipation. Ranciere offers a theory of emancipation that does not

place human consciousness at its centre, a necessity for critical approaches to education seeking to overcome a “naïve consciousness” among students (Galloway, 2019). According to Galloway (2019), Ranciere describes an emancipatory education that is deeply connected to the shared concerns of humanity whilst simultaneously reliant upon all of us, as individuals, taking responsibility for speaking and being heard (Holloway, 2002; Galloway, 2019).

Traditionally, critical pedagogy has been communicated as the cycle of social reflection and social action in response to a society’s problems (Черниговская, 2020; Galloway, 2019). According to Galloway (2019), Freire presents his assumptions as self-evident truths about the innate character of human beings. What separates humans from animals is that we are conscious of the material world around us (Galloway, 2019). More than this, our drive for social reflection and action is symptomatic of an enteral striving toward “completeness” (Freire, 1970; Galloway, 2019). This cycle of social reflection and social action is driven by dialogue and reliant upon human relationships, where love, trust and hope are integral to equality (Galloway, 2019). Beyond that, learning environments can function to correct the social, economic and political injustices of the past (OECD, 2021). Educational feminism is also a subset of critical pedagogy, as women and their concerns have not had an equal voice in male-dominated societies (Luke, 2017; Ridley, 2019). Not only did feminism create curriculum innovations such as women’s studies, but the movement has also sought to increase the number of women in educational power structures. While feminism in education is concerned with such issues as representation and power, there are also more complex aspects to its agenda (Boronski, 2021). Some advocates, for example, have argued that women’s experiences, values, responsibilities and activities need to be integrated into the curriculum (Luke, 2017; Ridley, 2019; Boronski, 2021). In short, advocates of feminism are acutely aware of the role of personal relationships, aesthetics and emotion in the construction of knowledge within the context of learning, and they want to see such concerns receive more attention in the educational experience (Luke, 2017; Ridley, 2019; Galloway, 2019).

Historically, critical pedagogy is an approach to education that emerged in the 1980s from the need to build more just, equitable and democratic societies (Freire, 1969; Galloway, 2019). It is based on a variety of philosophical traditions, all of which have been concerned with the role of mainstream education in maintaining social inequalities and the oppression of powerless groups. From its outset, a key aim of critical pedagogy has been to create a “language of possibility” and likely will continue to the future (Ridley, 2019; Tricia, 2021). The term captures the significance of language and its role in enabling poor and oppressed groups to challenge hegemonic ideas through a more critical approach to teaching and learning (Harvey, 2007; Blunt, 2019). Many believe that terms such as democracy, justice and equality are often presented in ways that are too broad and abstract (Freire, 1969; Freire, 1970; Boronski, 2021).

A variety of alternative views capture the notion of the creative curriculum, as

demonstrated by the Montessori and Waldorf education which offers a student-led approach to learning and teaching (Dahlin, 2014). The Montessori method promotes independent thinking in a creative environment, which aligns closely with Freire's concept of critical consciousness and is antithetical to a curriculum that emphasises standardised testing (Freire, 1970). It could be argued that nurturing free-thinking in students also has the effect of cultivating social consciousness (Cowden, 2019; Eagleton, 1991; Buber, 2011). Similarly, Stern's approach is co-educational, fully comprehensive, mixed-ability and gives equal attention to the emotional, intellectual, cultural and spiritual needs of each student (Stern, 2017). This approach values education and places a heightened focus on a student's spiritual development (Jackson, 2008; Luke, 2017). The extent to which these alternative curriculum options deliver on critical thinking, exercising autonomy, questioning established conventions, and recognising injustices—significant elements in critical pedagogy—remains the focus of the well-established alternatives that exist and are recognised in the workplace.

A further example of alternative views from global perspectives is popular education, originating from the Latin American source “of the people” (Freire, 1970). Popular education requires the learners to define what they need in order to learn, and as such, follows a classic Freirean pedagogy (Freire, 1969; Lunevich, 2021). It is non-hierarchical, and the boundaries between learners and teachers are intentionally unclear so that an equitable power dynamic is established, with each teaching the other according to personal skills, knowledge and lived realities (Cowden, 2019; Dreamson, 2021). Essentially, popular education is structured and designed to raise the consciousness of its participants and to allow them to become more aware of how personal experiences are connected to larger societal problems (OECD, 2021; Stern, 2017; Tricia, 2021).

Many explore the elements of popular education, stating that “it involves an inherently self-reflective, reflexive and non-dogmatic production of knowledge and insight, and build on what emerges from the experiences of those actively participating” (Boronski, 2021). “The richness of the approach lies, therefore, in the thought and implicit analysis that has gone into the design of the specific educational events or programmes, and in the spontaneous, sometimes serendipitous, process it unfolds at a particular moment, yielding even more challenges and possibilities.” (Boronski, 2021; Lunevich, 2021b). This quote illustrates a commitment to creativity that, in practical terms, is rooted in the teaching of art and the creation of culture as a means of shaping a way of life (Jackson, 2008). This example of curriculum design aims to reinforce and shape cultural expression and offers insight into how creativity can be the foundation of a more holistic, transformational education system (Tricia, 2021; Lunevich, 2021a, 2021b).

According to Boronski (2021), popular education is increasingly important in UK-based higher education, where university-based teachers and researchers have come together to refocus on equality and social justice despite the overwhelming pressures that erode any notion of autonomy and creativity (Boronski, 2021). The International Popular Education Network (PEW) was established in

1997 and now operates in 57 institutions of higher education. It stated, “popular education seeks to connect the local and the global”. In every context, it proceeds from specific, localised forms of education and action, but it deliberately sets out to foster international solidarity by making these local struggles part of the wider international struggle for justice and peace, transforming local education into global knowledge, concerns of critical digital pedagogy (Boronski, 2021; Crowther, 2022; Lunevich, 2021a, 2021b).

3.2. Critical Digital Pedagogy

Scholars, academics, policymakers and program managers are increasingly using mobile technologies to support disadvantaged or disempowered communities in learning more effectively and appropriately (Dreamson, 2021). It is believed that such technologies will help students and teachers meet the challenges and opportunities of our complex, increasingly connected world and work with greater cultural and ethical sensitivity at the intersection of education, research and technology (OECD, 2021; Traxler, 2021). By using digital technology, education enters a meta-connective pedagogy that reflects the ecological, transformative nature of the digitally networked world (Dreamson, 2021; Traxler, 2021). In exploring the topic of meta-connective learning, we learn about new concepts: digital identity formation; emergent communities and collaborative learning; interdisciplinary and transdisciplinary knowledge production; teacher attitudes towards the relationship between learning and technology; learner engagement and online interaction; transformative digital literacy; meta-analysis of technology integration frameworks; methodology for authentic digital engagement; and meta-connective ethics (Dreamson, 2021; Lunevich, 2021b). These concepts are all part of critical digital pedagogy and more research is required to understand their positive and negative impacts on students and teachers (Tricia, 2021; Boronski, 2021; Lunevich, 2021b).

Many agree, that learning and teaching in the virtual environment demand new skills such as digital and online communication, self-discipline, self-motivation, self-management, self-enthusiasm, self-initiatives, self-efficiency and self-determination by learners and teachers (Boronski, 2021; Lunevich, 2021b; Dreamson, 2021). Moving beyond theory and considering what critical digital pedagogy might look like in the classroom reflects the natural progression of the discussion into alternative approaches to education. In essence, critical digital pedagogy in the classroom supports the notion that both students and teachers are creative, autonomous individuals (Lunevich, 2021a, 2021b; Boronski, 2021; Jackson, 2008). As some argue, students should be viewed as whole people with their own lived experiences which should form part of their learning culture: “You cannot deny that students have experiences and you cannot deny that these experiences are relevant to the learning process even though you might say these experiences are limited, raw, unfruitful or whatever. Students have different skills, memories, families, religions, feelings, languages and cul-

tures that give them a distinctive voice.” Critical digital pedagogy is currently occupied with understandings of equity and social justice in the field of online education (Galloway, 2019; Lunevich, 2021b). According to Öztok in his recent book, *The Hidden Curriculum of Online Learning*, he analyzes how cultural hegemony creates unfair learning experiences through cultural differences (Öztok, 2019). He argues that such inequitable learning experiences are not random acts, but rather represent the existing inequities in society at large through cultural reproduction (Öztok, 2019).

Critical digital pedagogy calls for breaking the model of knowledge transmission from teachers to students, otherwise known as “banking education,” where the oppressive role of the teacher is to deposit knowledge within students who are situated as passive receptacles (Galloway, 2019). According to Galloway (2019), the teacher assumes the role of an active subject while the students are situated as “objects” dependent upon the teacher for knowledge about the world (Freire, 1969; Galloway, 2019). Banking education prevents dialogue between people and weakens social reflection, critical thinking and action regarding common concerns (Galloway, 2019; Holloway, 2002). According to (Lunevich, 2021a, 2021b; Freire, 1969) and (Galloway, 2019), this lack of engagement with others and the world renders students with a diminished consciousness of the world around them: they have a naïve consciousness or false perceptions which prevent them from understanding the true nature of an oppressive society, therefore weakening their ability to act and make changes (Freire, 1970; Galloway, 2019).

Freire identifies knowledge transmission as a driver of societal oppression (Freire, 1970). This is not because students are rendered passive objects, but because it encourages students to believe that they must rely upon the intellect of others, instead of attending to their own intellect and acknowledging intellectual equality between all people (Freire, 1970; Freire, 1969; Galloway, 2019). This is demonstrated clearly in the observational research conducted by Lunevich over the course of four years (Lunevich, 2021a). When considering the problem of knowledge transmission, both Freire and Lunevich identify a lack of dialogue between teachers and students as the source of difficulties (Freire, 1970; Lunevich, 2021b). Ranciere considers how the processes of explanation encourage the flow of knowledge transmission. Students reply upon the explanations of others, and in a sense, educational institutions are places where they grieve over the breaking of their wills (Galloway, 2019). As with Freire, Ranciere cited in Lewis (2012), describes how oppressive processes cascade throughout all of society’s institutions, including those aimed at countering inequality (Lewis, 2012). According to Freire and Ranciere, charitable organisations may be well-intentioned, but the way they transmit their ideas through systems of explanation acts to replicate rather than diminish inequality (Lewis, 2012; Boronski, 2021).

Critical digital pedagogy’s emphasis is on the idea that educational materials should enforce the will of the student so that they attend to their own intellectual capability, rather than stimulate dialogue around preselected problems, thus en-

couraging dialogue between teacher and students (Biggs, 2011; Blunt, 2019; Lunevich, 2021a, 2021b). The educational philosopher Martin Blumer, who influenced Freire and Ranciere, discusses the idea that love might transform subject-object relationships into relationships between subjects (Buber, 2011). According to Buber, cited in Galloway (Galloway, 2019), such an equitable relationship identifies the liberatory educator as one who loves their students. In such a relationship, hope, trust and critical thinking might encourage dialogue, social reflection and action in response to material problems (Buber, 2011; Galloway, 2019; Lunevich, 2021a, 2021b). Furthermore, emancipation emerges in this dialogue: the identification of knowledge about our shared problems manifests alongside trust and solidarity, such that the risks necessary to effect social change might be taken (Freire, 1970; Blunt, 2019).

4. Connected Knowledge and Connective Learning

4.1. Blended Learning Environment

Learning may be not fully controlled by learners and teachers because rapidly changing environments and innovations in learning technology often go beyond their perceptions and expectations. Dreamson (2021) pointed out that learning means not what they must learn but how to learn and evaluate the new environment and information (Dreamson, 2021). Siemens (2004) and Dreamson (2021) proposed connectivism as a new learning theory for the digital age (Siemens, 2004). According to the theory, learning resides outside us in the knowledge that is distributed across the networked environment. If knowledge exists distributed among multiple agents, the hierarchical relationship between student and teacher becomes invalid and undesirable. From the perspective of connectivism, learning occurs when learners actuate knowledge through their connection with learning communities in the network (Siemens, 2004) and nodes (Siemens, 2004; Dreamson, 2021). A node is both form and formless, such as a representation of a substance, a digital form of any information, and a place where social activities occur. In this case, learning is a process of creating connections between communities and elaborating the network. According to Dreamson (2021) and others, connectivism is a theory that requires learning focuses on the connectivity between nodes (communities) and requires learning processes to reflect the nature of connectedness where knowledge is distributed across nodes (Dreamson, 2021). It creates the notion of “know where”, that learning is to teach learners to know where they can find knowledge when needed in a networked learning environment (Dreamson, 2021).

Knowledge is “created” and re-created by students and teachers in their classrooms, thus reinforcing an open and equitable relationship of dialogue and engagement, as opposed to the passive student and the privileged teachers of the banking model of education (Holloway, 2002; Cowden, 2019). Therefore, the classroom is understood as a connected space to society, and the learning that takes place therein is part and parcel of cultural formulation (Crowther, 2022;

Boronski, 2021). Creating opportunities to reflect on and question power played out by the context of the classroom authority figures in the immediate setting provides opportunities to expose students to ideas about privilege and disadvantage (Lewis, 2012; Boronski, 2021).

Thus, a Freirian outlook would combine this recognition of a critical consciousness with the need for concrete action. As students become aware of how social, economic and political systems work and become conscious of themselves as agents, they can identify and critique this form of domination and control (Galloway, 2019; Cowden, 2019). This logic has shaped contemporary notions of transformation (Luke, 2017; Jackson, 2008) which, in turn, have influenced the concept of “pedagogical action”—the belief that all students bring something of value to the learning space, hence the need for a pedagogic curriculum which incorporates and draws on all sources of knowledge (Boronski, 2021; Galloway, 2019; Lunevich, 2021b).

Previous discussions considered the position that the classroom is an influential, discursive space for the enactment of critical pedagogy, suggesting that the power dynamic therein is inherently political and therefore the basis to explore inequality, social justice and reproduction (Lewis, 2012; Luke, 2017). The classroom is also a space that offers real-life connections to how society functions, in which ideological and economic drivers and the potential to be a change-maker therein are also considered. A further important factor is the role of the teacher, who key thinkers have argued occupies the role of intellectuals bringing about (potential) social change in an effort to construct and deconstruct knowledge production (Freire, 1970; Freire, 1969; Buber, 2011). Some offer a more profound idea of teaching, arguing that radical critical teaching is needed where teachers are able to examine how universities are engaged in shaping the ideology and material conditions that contribute to relationships embedded in domination and struggle (Freire, 1970; Boronski, 2021; OECD, 2021).

4.2. Education Is a Moral Enterprise

Education must be a moral enterprise, not merely a route to employment and a servant to the economy (Boronski, 2021; Traxler, 2021). Boronski and others pointed out that education should be subordinate to the desire for profit, as the outcome of such an imbalanced relationship will inevitably result in a society losing its moral grounding (Boronski, 2021; Tricia, 2021). Above all, education should focus on the transformation of students and teachers and the creation of a better world for all, not just for the few (Boronski, 2021; Freire, 1969). Boronski noted that this will involve a change in the relationship between teachers and the state, between teacher and students, and between students and the state (Boronski, 2021). In this system, students are encouraged to become reflective learners, able to think critically about the current conditions of the world as well as to imagine how to make it a better place for all. Students need to learn how to use their knowledge for the benefit of humanity, where the idea of achievement

and being an educated person is linked to problem-solving skills in collaboration with others (Boronski, 2021; Freire, 1969; Lunevich, 2021a, 2021b). Students can learn digital literacy skills known as the 4C of 21st-century skills. It is believed that ethical issues and concerns are directly associated with individual learners' actions and consequences of technology use in developing the 4C (Dreamson, 2021). According to Dreamson (2021), ethical interventions cannot be integrated into digital literacy education, rather, ethical use of technology remains within individuals' discretion and capacity (Dreamson, 2021; Boronski, 2021).

Boronski (2021) highlighted that Greta Thunberg has brought to the fore several key methods in which education should be made relevant and truly globalised—clear evidence of her growing “critical consciousness” (Boronski, 2021). This is opposite to the neoliberal narrative that education has become just another element in the gradual but effective conversation of public goods into private assets, creating new sources of profit for the wealthy (Boronski, 2021; Blake, 2003; Blunt, 2019). As Harvey (2007) states, “neoliberalism has, in short, become hegemonic as a mode of discourse and has pervasive effects on ways of thought and political-economic practices to the point where it has become incorporated into the commonsense way we interpret, live in, and understand the world” (Harvey, 2007). Can education remain relevant? Can it mitigate the impacts of neoliberal austerity? Thunberg certainly encourages us to doubt commonly held assumptions about our (limited) potential to change society, instead, challenging us to take responsibility for formulating and enacting alternatives whilst responding to each other and our shared concerns (Galloway, 2019; Boronski, 2021).

5. Conclusion

Critical Digital Pedagogy, no matter how we define it, has a central place in the discussion of how learning is changing in the 21st century because Critical Digital Pedagogy is primarily concerned with an equitable distribution of power and creates better community. If students live in a culture that digitizes and educates them through a screen, they require an education that empowers them in that sphere and offers new opportunities for human connectivity. From the perspectives of both critical pedagogy and critical digital pedagogy, there is no fixed curriculum, but rather an evolving consciousness of problems that need addressing such as teaching practices, teacher-student interaction, as well as the skills needed for a challenging world for both teachers and students. More “empirical research” is needed to explore ways in which technology and virtual environment provide learning benefits. Far too much work in education starts with tools, when what we need to start with is humans in order for education remain relevant.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- Biggs, J. A. (2011). *Teaching for Quality Learning at University: What the Student Does*. Open University Press.
- Blake, N. A. (2003). Critical Theory and Critical Pedagogy. In N. S. Blanke (Ed.), *The Blackwell Guide to the Philosophy of Education* (pp. 38-56). Blackwell.
<https://doi.org/10.1111/b.9780631221197.2002.00005.x>
- Blunt, G. (2019). *Global Poverty, Inequality and Injustice*. Cambridge University Press.
<https://doi.org/10.1017/9781108647472>
- Boronski, T. (2021). *Critical Pedagogy: An Exploration of Contemporary Themes and Issues*. Routledge. <https://doi.org/10.4324/9781315101811>
- Buber, M. (2011). *I and Thou*. Blackstone Audio, Inc.
- Chernigovskaia, T. (2022). Suppression of Non-Selected Solutions as a Possible Brain Mechanism for Ambiguity Resolution in the Word Fragment Task Completion Task, *Scientific Reports*, 12, Article Number: 1829.
<https://doi.org/10.1038/s41598-022-05646-5>
- Cowden, S. R. (2019). *The Practice of Equality: Jacques Ranciere and Critical Pedagogy*. Peter Lang Ltd. Academic Publishers.
- Crowther, J. G. (2022). *The International Popular Education Network*. Rizoma freireano.
<http://www.rizoma-freireano.org/articles-1414/the-international-popular-education-network>
- Dahlin, E. C. (2014). The Sociology of Innovation: Organizational, Environmental, and Relative Perspectives. *Sociology Compass*, 8, 671-687.
<https://doi.org/10.1111/soc4.12177>
- Dreamson, N. (2021). *Critical Understandings of Digital Technology in Education: Meta-Connective Pedagogy*. Routledge.
- Eagleton, T. (1991). *Ideology: An Introduction*. Verso.
- Field, J. (2005). *Social Capital and Lifelong Learning*. The Policy Press.
<https://doi.org/10.46692/9781847421265>
- Freire, P. (1969). *Pedagogy of the Oppressed*. Penguin.
- Freire, P. (1970). *Cultural Action for Freedom*. Harvard Educational Review.
- Galloway, S. (2019). Ranciere, Freire and Critical Pedagogy. In S. R. Cowden (Ed.), *The Practice of Equality: Jacques Ranciere and Critical Pedagogy* (pp. 21-43). Peter Land Ltd Academic Publishers.
- Harvey, D. (2007). Neoliberalism as a Creative Destruction. *Annals of the American Academy of Political and Social Science*, 610, 22-44.
<https://doi.org/10.1177/0002716206296780>
- Holloway, J. (2002). *Change the World without Taking Power: The Meaning of Revolution Today*. Pluto Press.
- Jackson, L. (2008). Dialogic Pedagogy for Social Justice: A Critical Examination. *Studies in Philosophy and Education*, 27, 137-148. <https://doi.org/10.1007/s11217-007-9085-8>
- Lewis, T. (2012). *The Aesthetics of Education. Theatre, Curiosity and Politics in the Work of Jacques Ranciere and Paulo Freire*. Bloomsbury.
<https://doi.org/10.5040/9781472581358>
- Luke, C. (2017). Pedagogy, Feminisms and Critical. In C. A. Luke (Ed.), *Feminisms and Critical Pedagogy* (pp. 120-147). Routledge.
- Lunevich, L. (2021a). Creativity in Teaching and Teaching for Creativity in Engineering

- and Science in Higher Education—Revisiting Vygotsky’s Psychology of Art. *Creative Education*, 12, 1445-1457. <https://doi.org/10.4236/ce.2021.127110>
- Lunevich, L. (2021b). Critical Digital Pedagogy and Innovative Model, Revisiting Plato and Kant: An Environmental Approach to Teaching in the Digital Era. *Creative Education*, 12, 2011-2024. <https://doi.org/10.4236/ce.2021.129154>
- OECD (2021). *Programs for International Students Assessment (PISA)*. <https://www.oecd.org/pisa/publications/21st-century-readers-a83d84cb-en.htm>
- Öztok, M. (2019). *The Hidden Curriculum of Online Learning Understanding Social Justice through Critical Pedagogy*. Routledge. <https://doi.org/10.4324/9780429284052>
- Ridley, D. (2019). Flipping for Profit or Equality? Ranciere and the Marketisation of Higher Education. In S. A. Cowden (Ed.), *The Practice of Equality: Jacques Ranciere and Critical Pedagogy* (pp. 59-67). Peter Land Ltd Academic Publisher.
- Siemens, G. (2004). *Connectivism: A Learning Theory for the Digital Age*. <http://www.elearnspace.org/Articles/connectivism.htm>
- Skinner, B. F. (1950). Are Theories of Learning Necessary? *Psychological Review*, 57, 193-216. <https://doi.org/10.1037/h0054367>
- Stern, E. (2017). Individual Differences in the Learning Potential of Human Beings. *NPJ Science of Learning*, 2, 6-12. <https://doi.org/10.1038/s41539-016-0003-0>
- Traxler, J. A. (2021). *Critical Mobile Pedagogy, Cases of Digital Technologies and Learners at the Margins*. Routledge. <https://doi.org/10.4324/9780429261572>
- Tricia, K. (2021). *Critical Pedagogy for Healing: Paths beyond Wellness, toward a Soul Revival Teaching and Learning*. Bloomsbury Publishing Plc.
- Черниговская, Т. В. (2020). Мозг человека и многозначность когнитивной информации: конвергентный подход [Human Brain and Ambiguity of Cognitive Information: A Convergent Approach]. *Вестник Санкт-Петербургского университета. Философия и конфликтология*, 36, 675-686.