

The Architectonic Eye: Reimagining Foucault, Surveillance Theory and Platform Pedagogy

Jeremy Dennis
Liberal Arts & Humanities, St. Louis Community College, USA
jdennis@stlcc.edu

Abstract: *While Michel Foucault's appreciation of panopticism has been a dominant paradigm for theorizing surveillance in surveillance studies and beyond, our preoccupation with its character and limitations often prevents us from considering accordant concepts such as discourse. For Foucault, discourse can construct a prison in the mind that is as formidable as one designed for the body. However, scholars tend to forget that surveillance is embedded in architecture and design as well as authorship and discursive formations or texts. As such, we often undervalue the ways in which texts express panoptic imperatives and architectonic principles. This theoretical survey introduces architectonics as an alternative consideration for theorizing surveillance in education, thus revealing what Foucault's appreciation of the concept can teach us about surveillance practices and their text-making and pedagogical properties. To illustrate what Foucauldian architectonics looks like as an emergent practice, the author describes how shadow texts and inequality manifest as byproducts of digitalization and surveillance capitalism. The findings from this review suggest that discourse and texts are inseparable from our understanding of digital surveillance, pedagogy, and inequality. In fact, it appears that the digitalization and commodification of texts, information, and learning are increasingly commanded by surveillance capitalists and their extraction architecture and pedagogical platforms. As a result, their digital practices compete with those of professional educators and increasingly outpace them.*

Keywords: Architectonics; digital inequality; panopticism; platform pedagogy

Introduction

As a model and metaphor, Michel Foucault's panopticism has been the dominant paradigm for contextualizing and advancing our understanding of surveillance as a scholarly pursuit in surveillance studies and beyond (Haggerty, 2006; Haghghi, 2018; Khaghani, 2019; Lyon, 2006, 2022; Mathiesen, 1997; Piro, 2008; Wood, 2003, 2007). However, Caluya (2010) claimed that some scholars and practitioners have misrecognized the broader consideration of the metaphysics of power that Foucault



(1995, 2000) intended his appropriation of Jeremy Bentham’s model prison—the *panopticon*—to illuminate. For example, discourse is a technology of power that Foucault also considered to be panoptic and just as effective as incarceration in replacing corporal punishment and inducing docility and utility (Dennis, 2024; Lorenzini & Tiisala, 2024). The term *discourse* describes written and spoken texts as well as visual imagery and sound (Fairclough, 2013; Foucault, 1981). It allows us to signify and communicate various aspects of our material, mental, and social world. Words and language are the tools that we use to construct and shape discourse. More importantly, discourse is a site of struggle where relations of power are negotiated and exercised through social relations (Fairclough, 2013; Foucault, 1981). In Foucauldian thought, discourse forms and operationalizes the social networks that allow power to circulate and automate behavior (Hope, 2013; Khaghani, 2019; Zuboff, 1984). As such, power distributes through an array of discursive modes and structures with different dimensions and levels of actualization. According to Matthewman (2013), Foucault viewed power as an agent that constructs networks of multiple forces, including discourse, buildings, and institutions. In other words, Foucauldian logic recognizes the ways in which power is embedded in the construction of architecture and design as well as authorship and texts. In fact, they are born of the same creative processes and warrants (Foucault, 1977, 2000; Haghighi, 2018; Hirst, 1993; Piro, 2008).

For Foucault, novel creations and technologies also tend to inspire new practices, observations, and architectural and textual forms (Matthewman, 2013). However, the problem is that our preoccupation with panopticism often blinds us to accordant theoretical perspectives in Foucault’s oeuvre (Brunon-Ernst, 2016). While surveillance studies is considered an interdisciplinary field by noted scholars such as Lyon (2022), Marx (2012), and Ball and Haggerty (2005), we find very few investigations in the academic literature that recognize the ways in which texts can enrich our understanding of surveillance technologies and their impact on learning and inequality or the asymmetrical interplay of power in social and institutional relations (Fairclough, 2013). However, Smith et al. (2013, p. 215) reported, “Beyond their ends as supervisory overlays, surveillance technologies are a crucial means for inscription, ascription, and storytelling.” For them, surveillance systems are text-making mechanisms that reproduce details procured through social interactions, screening, and the iterative processes of extraction. In turn, the visualized simulacra produced by what Smith et al. (2013) called *surveillance textualism* can be operationalized and exploited to serve the ends of others. With this in mind, the questions that this theoretical survey attempts to address include the following: What can a Foucauldian appreciation of architectonics teach us about the text-making and pedagogical properties inherent in surveillance



practices? How can these features help us explain how inequalities manifest as a byproduct of surveillance capitalism and platform pedagogy?

To explore these questions, I reveal how Foucauldian architectonics serves as an alternative theoretical perspective that we can employ to advance discourse and surveillance studies, particularly as they relate to understanding the corporatization of learning in education. First, I will introduce and contextualize the history, philosophy, and multidimensional character of architectonics as a concept, revealing how its general features and temperament permeate the philosophical, pedagogical, and digital landscape in Western thought. I will also explicate Foucault's appropriation of architectonics as an adequation for intertextuality or what is often called the *discontinuity* of discourse. Then I discuss how Foucault's appreciation enriches our understanding of the character of analog and digital texts and the parasitism that inspires their incessant recombination and surplus. To illustrate what Foucauldian architectonics looks like as a discursive practice, form of surveillance textualism, and corporatized learning, I turn to Zuboff's (2019) study on shadow texts and surveillance capitalism to examine how they create asymmetries in knowledge and power in ways that orient our behavior and learning toward the ends of internet corporations and their platforms and algorithms. For Zuboff, the term *surveillance capitalism* is an expression of information capitalism where human experiences are coded and converted into texts through digitalization, thus generating the surplus data or *shadow texts* that can be used to condition our behavior, command learning, and disrupt the democratizing impact of education. To conclude, I reveal why architectonics and its interdisciplinary properties can serve as the kind of paradigm that helps theorists and practitioners in education understand the increasing significance of the role of discourse and texts in surveillance studies and corporatized learning.

What is Architectonics?

The term *architectonics* is a trope that permeates philosophical thought. In his distillation of this inherently interdisciplinary term, Holquist (1990) indicated that architectonics is the science of relations that orders meaning and texts as well as the different domains of knowledge. While this general assessment is valid, the term requires more nuance and unpacking. Scholars have used architectonics to elucidate, substantiate, and interconnect several philosophical traditions and theoretical positions over time (Atkins, 2014; Duddy, 2018; Karatani, 2005; Ypi, 2021). As a result, the term is polysemic and requires contextualization. In ancient Greece, the meaning of architectonics is an outgrowth of the word *architectōn*, a term that is often associated with one who thinks and invents, particularly architects. Early philosophers such as



Plato and Aristotle tended to use the term to describe “a master of workers, someone capable of giving directions and instructions to artisans who are working up the material for something useful to the one who desires what they are making” (Manchester, 2003, p. 201). According to some scholars, Plato employed the term sparingly. However, it is regarded as central to Aristotle’s meditations on the organization and uses of knowledge (Johnson, 2015; Kavanaugh, 2007; Manchester, 2003).

Aristotle was one of the first philosophers to contemplate and configure the sciences or the different domains of knowledge. For him, the sciences help us to observe the features and facts of their subject matter using particular principles and methods (Johnson, 2015; Kavanaugh, 2007). However, Aristotle argued that some sciences must depend on the properties of other sciences for their development, conceptualizations, and methods. As such, this creates a system or structure that elaborates the interrelationships among the sciences and any potential conflicts that this might create between the superior sciences (theoretical/intellectual) and subordinate sciences (practical/productive) (Johnson, 2015). The intellectual thinking, planning, and manual labor associated with architecture or the designing and building of structures became a handy way for philosophers such as Aristotle and later thinkers to express the complex interrelations of knowledge and their manifestation and impact on representation, conduct, and learning.

The term *architectonics* is later adopted and adapted by Aristotle’s intellectual heirs. This lineage includes polymaths such as Johann Lambert. He (re)articulated the order or system of relations among the sciences to help us observe, judge, and communicate simple as well as complex phenomena across the different domains of knowledge. In her assessment of architectonics, Manchester (2003) noted that Lambert also valued it as an *abstractum* from architecture. Lambert’s conceptualization of architectonics considers it ontologically and as the artistry that provides the directives for constructing systems that are useful in life and learning. According to Manchester, Lambert is distinct because he employed architectonics as a tool for resolving the methodological tension between metaphysics and the sciences. In doing so, Manchester (2003) suggested that Lambert indirectly reformed the view by the German pedagogue Philip Melanchthon that treats architectonics as a rhetorical art for finding the appropriate subjects for creating systems and conditions that foster useful learning. In this context, architectonics becomes a paradigm for teaching and learning and a conceptual tool for relating subjects to students that are short and easy yet agentic enough to move the soul in the right direction (Duddy, 2018; Gross, 2000; Manchester, 2003). Gross (2000) noted that rhetoric is not only the architectonics of knowledge for Melanchthon, but it



makes pedagogy a practical art for teaching and learning. As a practice, “rhetoric has long been considered an invasive art with curative, as well as destructive, powers” (Gross, 2000, p. 11). While McKeon (1987) would echo many of these same sentiments in the twentieth century, it is the Enlightenment philosopher Immanuel Kant who appears to be most inspired by Lambert’s innovative views of architectonics and Melanchthon’s treatment of it as a pedagogical tool for education reform (Dennis, 2020a; Manchester, 2003).

Before Kant, several philosophers meditated on the idea of architectonics, including Gottfried Leibniz (discussed below), Alexander Baumgarten, and Christian Wolff (Dennis, 2020a; Hui, 2016; Manchester, 2003). However, after Lambert, the term tends to be associated with the thinking of Kant. Manchester (2003, p. 198) argued, “Lambert was undoubtedly the catalyst which eventually led to Kant’s attention to architectonic.” Kant (2007) described architectonics as the art of systems that transform ordinary knowledge into science. He arranged the sciences as well as the academic disciplines and their faculty in pursuit of this goal and according to his understanding of the structure of cognition (Dennis, 2020a; Kant, 1979). For Kant, systematic unity edifies our knowledge in the service of reason and the stability of the state. Our diverse knowledge must not be disorderly or a mere *rhapsody*. It must be ordered or systemized according to the structures in our minds and the principles and ends of reason. Bridging the divide between empiricists and rationalists, Kant’s (2007) theory of cognition revolutionizes philosophical thinking and anticipates constructivism and surveillance studies. More specifically, he claimed that the elements of the mind determine how we see and interpret objects and reality (Karatani, 2005; Werkmeister, 1980). In other words, Kant concluded that the mind plays a constructive role in how we perceive and characterize the world around us and how we respond to it through our actions, discourse, and imperatives (Dennis, 2020b; Hawkins, 1994; Holquist, 1990; Noddings, 2016; Peirce, 1955; Werkmeister, 1980).

With some exceptions, contemporary architectonic thinking is largely a critical response to and rearticulation of Kantian architectonics (Dennis, 2020a, 2020b; Prawat, 2001). As a metaphor and model, architectonics plays a key role in the work of more contemporary thinkers such as Charles S. Peirce, Mikhail Bakhtin, Richard McKeon, Kōjin Karatani, Walter Watson, Ludger Hovestadt, and Michel Foucault, among others (also see Atkins, 2014). To simplify the various appreciations of the concept, one might imagine architectonics as the science of relations in which different writers conflate or interchange the discourses of architecture, authorship, and surveillance to describe complex interconnections and heterogenous interrelations among varying epistemological and ontological phenomena and realities (Dennis, 2022b, 2024;



Watson, 1993). For example, in response to Kantian architectonics, Peirce (1891, 1955) developed an arrangement of the sciences informed by the triadic logic of *firstness*, *secondness*, and *thirdness*. These universal terms are used by Peirce to describe various levels of relations that reflect the quality of our perceptual judgments or thoughts as well as the impetus for our actions and aims or what most of us call *pragmatism*. According to Pietarinen (2006), Peirce concluded that our thoughts and knowledge are derived from our perceptions and observations. However, different sciences permit different domains and lenses through which we can view and interpret the world and its phenomena. For Peirce, some sciences are theoretical and some are practical. Sometimes, they entwine. Using this logic, Peirce (1931, 1955) ordered the various branches of knowledge or sciences largely based on their observational qualities, potentialities, and dependencies. Borrowing from the writings of Jeremy Bentham, Peirce distinguished his architectonics or arrangement of the sciences based on the different types of observations that they allow (Liszka, 1996). For instance, certain sciences such as philosophy permit *cenoscopic* or common, ordinary inquiries and observations. For more specialized ways of observing and investigating, Peirce identified sciences such as physics as *ideoscopic*. This term describes ways of seeing that require a trained or skilled eye (Dennis, 2022a; Peirce, 1931; Pietarinen, 2006).

It is also significant to note that Peirce (1955) argued that semiotics, the interpretation and study of sign systems and representation, permeates his architectonic system. Peirce (1887, 1955) claimed that we conduct our thinking in signs. In this sense, our thoughts reflect the translation of one sign into another ad infinitum. Peirce's (1887, 1891) work in the areas of semiotics, architectonics, and logical machines continues to serve as reflection points for scholars in computer science and artificial intelligence (Fetzer, 2001, 2004; Garnar, 2020). More specifically, Gazoni (2016) suggested that an understanding of Peircean semiotics can help us to accelerate advancements in these key areas. For scholars such as Holquist (1990), Peirce's contributions to semiotic thinking have been greatly enriched by the views of Russian philosopher and literary critic Mikhail Bakhtin and his dialogic theory of language and texts. Bakhtin (1986) mirrored Peircean thinking when he argued that words and texts exhibit the same intertextual dynamic. In other words, Bakhtin claimed that language and texts do not exclude one another. They intersect and integrate incessantly in a network of heterogeneous relations. Using Bakhtinian thought, Kristeva (1986) would coin the term *intertextuality* to characterize the dialogic interrelations or discursive interconnections that Bakhtin perceived between words and texts. She claimed, "Each word (text) is an intersection of word (texts) where at least one other word (text) can be read" (1986, p. 37).



However, Bakhtin (1990) turned to architectonics to contemplate the aesthetic and ethical values in dialogic relations and texts. In doing so, he revealed how the authorship or construction of the “self” as well as texts represent the same creative process in dialogic thinking. Holquist (1990) reported that Bakhtin viewed language as a modeling tool for authorship and observation (also see Foucault, 1977). It influences the various ways in which we interpret and shape texts to answer for our existence and communicate in different contexts and domains of knowledge (Bakhtin 1986, 1990). Holquist (1990, p. 35) argued that Bakhtin’s dialogic theory is “able to make claims in many different areas because it is basically a theory of knowledge, an architectonics of perception.” In his study of sensemaking in organizational studies, Boje (2008, p. 156) described Bakhtinian architectonics “as the interanimation of cognitive, aesthetic, and ethical discourses in ‘mutual answerability’.” However, scholars such as Landow (2006) have suggested that Bakhtin’s strongest contribution to intellectual thought may rest in the claim that his conceptualization of the interrelation of words and texts anticipates hypertextuality or what Everett (2003) has called *digitextuality*.

The Rise of Digital Architectonics

With the emergence of increasingly advanced technologies, Everett (2003) indicated that our understanding of intertextuality as a form of dialogism may be in need of an update. As such, she recommended a digital reconsideration of the textual interrelations that characterize the life, character, and growing significance of digital texts in the twenty-first century. To reflect the reality of texts in the digital age, Everett (2003) coined the term *digitextuality* (also see Bush, 1945; Nelson, 1987). The concept illustrates what Kristeva’s (1986) understanding of intertextuality entails when it is reimaged using a digital lens. As such, Everett revealed that digitextuality offers us a more precise characterization of texts as interactive, sensemaking tools that can be expressed in a variety of modes, including visual information, sound, animation, and other forms. She reported, “In other words, new digital media technologies make meaning not only by building a new text through absorption and transformation of other texts, but also by embedding the entirety of other texts (analog and digital) seamlessly within the new” (2003, p. 7). In this context, we discover that some scholars treat data, information, and knowledge as forms of texts, discourse, and writing (Dennis, 2020b; Hui, 2016; Watson, 1993). For many of them, what distinguishes the different names that we use to describe the various formulations and modes of inscription often requires qualification (Doyle et al., 2019). For example, data are generally considered the raw material that must be collected and curated by arbiters before *they* can be considered useful as information. Therefore, what is considered information by some is often based on the ways in which data are cultivated and categorized (Doyle et al., 2019).



However, information often has to be legitimated and deemed operable or pedagogical by an authority, before it is considered knowledge. In other words, our inscriptions must satisfy a variety of arbitrary requirements and processes before they can be authorized and recognized as knowledge or truth (Foucault, 1981; Wellmon, 2015).

Everett (2003) might agree that this legitimation process is intellectual as well as political, despite the democratizing ethos that we often associate with digitalization. She pointed out that digitalization and other advancements in technology require changes in our understanding of the multiple capacities inherent in all texts. For example, they are vectors of power as well as sites of digital convergence. In the digital age, we often find that technology empowers those who possess it, have access to it, and make the most use of it (Landow, 2006). Digitextuality acknowledges this phenomenon. For Everett (2003, p. 7), it also serves as a “metasignifying system of discursive absorption whereby different signifying systems and materials are translated and often transformed into zeros and ones for infinite recombinant signifiers.” According to Kavanaugh (2007) and Strickland and Lewis (2022), the computing and communication that drive digital inscription and technology today are possible because of Leibniz’s architectonic philosophical views and his development of the binary system of zeros and ones that substantiate the electronic circuitry used by almost every modern computer and computer-based device. Therefore, Leibniz’s insight and innovation have helped to facilitate the integration of literacy and numeracy through digitalization and its electronic networks. These networks constitute and condition the various modes of texts, which are enlivened and operationalized by electric links or *hypertextuality* and the ubiquity of computerized machinery and devices. Ultimately, these technologies drive globalization, the digitalization of labor and learning, and corporate monopolization (Dennis, 2020b; Everett, 2003; Landow, 2006; Williamson et al., 2020).

Scholars such as Hovestadt et al. (2020) have advanced the use of the term *digital architectonics* rather than hypertextuality or digitextuality to mark this momentous change in our understanding and experiences living in a postindustrial society, where the lines between the personal and the private are increasingly blurred by the ubiquity of the internet and the integrated infrastructure and platforms that it supports. The term *digital architectonics* is usually associated with the work of Hovestadt (2009) and his effort to interface architecture and information technology. This initiative signals the increasing importance of the linguistic turn in both fields. For advocates of digital architectonics, words and texts are not only useful for computing and information processing. They are also essential in the creation of the various textualities that inform the design of all structures, whether they manifest as a book or building.



Computerization simply makes these processes more manageable and integrative, as computers and their correlating infrastructure facilitate the production and translation of data, texts, and knowledge into a system of signs that increasingly touches the lives of everybody and everything (Hovestadt et al., 2020; Hui, 2016).

In fact, Hovestadt (2009) and others built on the semiotic properties in all discursive practices to facilitate their provision as a new theoretical imperative and practice (also see Dennis, 2020b, 2022b). According to Doyle et al. (2019), the training of the architect or creator lies in *their* ability to negotiate architectonic phenomena and paradoxical realities that computerization and digitalization mitigate and aggravate. The themes and ideas contemplated and elaborated under the umbrella of digital architectonics are foreshadowed by Lyotard (1984) and many of the thinkers mentioned above. As advanced technology permits the *informating* of human experiences, Lyotard claimed that knowledge becomes an informational commodity that is indispensable to the production and exercise of power. Lyotard (1984, p. 4) predicted, “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.” In his purview, power is always performative and self-legitimizing. In fact, texts facilitate the integration and realization of the two as *social action*. In his prescience, Lyotard (1984) also reported that the growth of power and its self-legitimation qualities would increasingly condition the storage, accessibility, and operativity of information and knowledge through computerization. His insight helps us to understand why Foucault (1980, p. 52) insisted that the “exercise of power perpetually creates knowledge and, conversely, knowledge constantly induces effects of power.”

Foucauldian Architectonics

In his writings, Foucault (1977, 2010) imagined architectonics as a notable dimension of social discourse, thus anticipating the term’s relevance for enriching surveillance and discourse theory in the digital age (Dennis, 2024; Zuboff, 1984). For scholars such as Boje (2008), Foucault also valued the concept as a specific kind of historical and literary analysis that examines the function of authors and how their texts are linked, arranged, and delimited to form schools or groupings based on an inclusion/exclusion binary and other differentiating criteria. In his contextualization of the concept, Foucault (1977) described how the process of naming an author to a particular set of texts typically involves an evaluation of their character or architectonic forms. The word *author* in Foucauldian thought is expansive. He employed the term to describe a person who perceives and produces texts. However, an author can also be a person who designs and innovates using a variety of modes and mediums. In terms of the



production of written texts, Foucault (1995) argued that an author's name aids in the establishment of a particular identity that limits the play of meaning and differences that all texts signify. When we mark texts with a particular author or identity, we facilitate the separation of one text from another, thus limiting their interactivity, parasitism, and signification. Foucault (1977) used the term *author-function* to illuminate this process of surveillance, regulation, and control. He also claimed that this particular approach is supported and legitimated by the formation of corroborating themes and statements or *discourses*. These discourses impose and reinforce artificial demarcations and restrictions on texts that shape our viewpoints and control our behaviors. For Foucault, the problem is that these curtailments are at odds with the heterogeneous, recombinative, and intertextual character of all writing and perception.

For example, Foucault (1977, 2010) argued that language and texts are inherently semiotic, producing a continuous surplus of meanings and representations. They signify and model the interplay of presence and absence exhibited by the translation of one sign into another (also see Peirce, 1931, 1955). According to Landow (2006), Foucault imagined texts in terms of networks because they link a range of contradictions, differences, significations, and means of observation. Therefore, texts are inherently panoptic in the sense that they function as surveillance technologies for Foucault (1981, 1995). More specifically, they are tools for recordkeeping as well as translating human experiences into inscriptions that can be examined, calibrated, and categorized in ways that reproduce the knowledge/power dynamic. Foucault (1995, p. 189) reported that writing is constituted as “an essential part in the mechanisms of discipline. On many points, it was modelled on the traditional methods of administrative documentation, though with particular techniques and important innovations. Some concerned methods of identification, signalling or description.” Giddens (1987) expressed a Foucauldian understanding of surveillance when he defined surveillance as the synthesis of information put to administrative purposes and arrangements in which the few have authority and supervision over many. He reported, “Writing provides a means of coding information, which can be used to expand the range of administrative control exercised by a state apparatus over both objects and persons” (1987, p. 44).

Based on a Foucauldian appreciation of writing as a form of surveillance, it is imperative that we also remember the larger point that Foucault wanted to proclaim using the observational features exhibited by written texts (Caluya, 2010; Niesche, 2010). His proclamation asks us to consider how the author-function and its restrictive structural properties actually serve as another example of the many ways in which power is exercised to thwart the incessant signification of texts, regulate the play of



difference, and ultimately limit challenges or changes in the social, political, and economic status quo (Allen, 2022; Boje, 2008). Whether they are realized as data, visual information, or nonvisual knowledge (thoughts), texts represent all of the different forms and modes of discourse. In its material reality, discourse represents an object that is always constructed to form texts or any other mode of communication and representation (Foucault, 1981). In many ways, texts signify as forms of property and appropriations constituted by the various technologies or tools through which power is organized and exercised to aid in their production and regulation. As such, analog as well as digital texts are always interrelated. In fact, they are both constructed by the series of ideas and statements or discourses that ultimately become the resources for the formation of the various networks through which power and knowledge circulate and intertextuality thrives (Dennis, 2020b, 2022b; Hui, 2016). For many scholars, intertextuality is useful in our contemporary moment because “it foregrounds notions of rationality, interconnectedness and interdependence in modern cultural life” (Allen, 2022, p. 5).

With that said, one can make a case for valuing Foucauldian architectonics as a compelling metaphor and paradigm for us to consider in discourse and surveillance studies (Dennis, 2024; Hope, 2013). First, Foucault’s (1977, 2010) appreciation of the concept represents the culmination and rearticulation of the semiotic/dialogic nature of texts and their interrelations, manifesting over time as a critique and extension of Kantian, Peircean and Bakhtinian architectonics or what Dennis (2020a, 2022a) has called the *Kantian Effect* in the Western intellectual tradition (also see Boje, 2008; Holquist, 1990; Manchester, 2003; Peirce, 1955; Prawat, 2001). Second, what distinguishes Foucault’s (1977, 1982) contribution in this philosophical family tree is his interpretation of intertextuality as discursive relations imagined through the lens of power or what Foucault called *actions upon other actions* in a field of possibilities. It is power that informs the ways in which one text always acts upon another in order to give birth to new texts ad infinitum. When power permits discourse to be restored to its naturally discontinuous or intertextual state, the notion of an author disappears or fades into the background (Foucault, 1977, 1981). Foucault (1980, p. 93) argued that relations of power cannot themselves be “established, consolidated nor implemented without the productive, accumulation, circulation and functioning of a discourse. There can be no possible exercise of power without a certain economy of discourses of truth which operates through and on the basis of this association.”

Furthermore, Foucauldian architectonics helps us to recognize that discourse is not simply language and writing. It is a practice in which power is both productive and coercive, inducing docility as well as utility in its subjects (Dennis, 2024). To achieve



this level of discipline, discourse might be deployed to cultivate cognition and transform the mind into a pliable surface upon which the inscription of power operates with semiotics as its tool (Foucault, 1995). As such, discourse can construct a prison in the mind that is as formidable as one designed for the body. However, in his contribution to Foucauldian thinking, Fairclough (2013) claimed that power is seldom a permanent attribute that is always available to everyone. In fact, the exercise of power is not always apparent to the constituents involved. Sometimes, it is purposely downplayed or hidden as an effective way to achieve intended aims, particularly among many corporate leaders. According to Fairclough (2013), the key dimension in the exercise of power through texts or any other form of discourse is the capacity of its agents to determine to what degree power will be overtly expressed in a particular context. To illustrate what this feature of Foucauldian architectonics looks like as an emergent practice and the asymmetrical relations of texts and power that it creates for anyone who uses a computer or smart device for teaching or learning, I turn to Zuboff's (2019) study of the significant role that *shadow texts* play in the world of surveillance capitalism. While Foucault's (1995) and Zuboff's (1984) appreciations of surveillance, texts, and power are not necessarily synonymous, one finds that they do overlap in ways that illustrate how our contemporary surveillance and discursive practices condition teaching and learning, especially through the use of digital platforms.

Actualizing Foucauldian Architectonics

In her study, Zuboff (2019) used the term *surveillance capitalism* to characterize a form of information capitalism that is unthinkable outside of a digital context and surveillance textualism. Her conceptualization describes how human experiences are converted into digital texts that generate surplus data and potential profits. In this new economic order, Zuboff claimed that the public and private data shared in our everyday social interactions become the raw material for hidden commercial practices that are parasitic, predictive, and lucrative (Lauer & Lipartito, 2021). In surveillance capitalism, the digital architecture that enables the extraction of data for behavioral modifications does not want our blood, sweat, and tears. It wants our data for the calibration and commodification of our thoughts, communications, and habits (Möllers et al., 2019; Zuboff, 2019). Zuboff (2019, p. 10) found that human beings are the source of surveillance capitalism's surplus and its "increasingly inescapable raw material-extraction operation." The surplus data mined from our experiences and social connections are used to predict and influence our behavior for monetization and market control. In short, this is the governing ethos that underwrites the extractive and pecuniary logic that orients the computerized devices and infrastructure that digital technology enables. Zuboff (2019, p. 129) claimed that under "the direction of



surveillance capitalism the global reach of computer mediation is repurposed as an extraction architecture.” However, this process and the technological platforms that substantiate it are often controlled by private or hidden entities (Behrens, 2009; Zuboff, 1984, 2019).

For example, leading internet companies such as Google, Facebook/Meta, Amazon, and Microsoft have perfected surveillance capitalism as the new means of production in the twenty-first century, while hiding its protocols and objectives. Zuboff (2019) noted that these companies and their agents espouse the rhetoric of democracy, connectivity, and individual empowerment while cloaking the ways in which they exploit human interactivities, desires, and habits, turning them into data and revenue streams. These mechanisms have become economic imperatives and models for nearly all internet-based businesses. Their purchase of the open internet and its interconnectivity has been “quietly harnessed to a market process in which individuals are definitely cast as the means to others’ market ends” (Zuboff, 2019, pp. 53-54). These companies use the internet, digitalization, and the extractive architecture that they permit to make surplus operations a defining aspect of surveillance as an economic incentive.

Zuboff (2019) argued that surveillance capitalism’s command over the digital milieu and learning begins with the problem of texts. She reported that the mechanisms of surveillance capitalism compel the production of dual texts. Zuboff noted, “When it comes to the first text, we are its authors and readers. This public-facing text is familiar and celebrated for the universe of information and connection it brings to our fingertips” (2019, p. 185). The inscriptions that we see on a page or screen represent the public face of a text. Zuboff noted that examples of these inscriptions include our posts, videos, photos, and other missives in our lives that can be captured and textualized by the invisible algorithms and other digital apparatus that operationalize our computers and smart devices. In the process of textualization through digitalization, Zuboff (2019) claimed that the first text leaves a trail or trace behind it. The first text functions as the “supply operation” or nourishment for the second text or what Zuboff called “the shadow text.” She wrote, “Everything that we contribute to the first text, no matter how trivial or fleeting, becomes a target for surplus extraction. That surplus fills the pages of the second text” (2019, p. 185). This text is usually hidden from us, but it exists and operates within the purview of surveillance capitalists. According to Zuboff (2019, p. 185), “Worse still, it becomes increasingly difficult, and perhaps impossible, to refrain from contributing to the shadow text. It automatically feeds on our experience as we engage in the normal and necessary routines of social participation.”



Surveillance capitalists take what they learn from the shadow texts and use it to advance their prerogatives, power, and interests. For example, Google’s algorithms can take what they learn from shadow texts and use it to select and order search results. Facebook/Meta can use information provided by shadow texts to select and order the content in our news feeds. Zuboff (2019) reported that these practices reflect the commercial goals and priorities of these corporations (also see Komljenovic, 2021; Srnicek, 2017). As a result, she argued that these companies are now positioned as the dominant authors and owners of texts, producing unprecedented asymmetries of knowledge and power that ultimately control life and learning in ways that are often beyond our awareness and ability to combat to reduce social and economic inequality (Zuboff, 2019). In many ways, the information elites are the new bosses and owners of textual production. This concentration of power also represents the unauthorized privatization of learning and profound reductions in privacy, equality, and democracy—as more control and power accrues to agents largely beyond the purview of academic institutions (Behrens, 2009; Komljenovic, 2021; Srnicek, 2017). According to Zuboff (2019), this results in private interests controlling the social order and the mediation of digital interactions that help to facilitate the unequal application of knowledge.

To illuminate this new form of power, Zuboff (2019) coined the term *instrumentarian power*. Surveillance capitalism is unprecedented in the sense that it uses digital networks and their supporting devices to enact a new form of control and surveillance over individuals and whole societies by digitally transforming human experiences into shadow texts. As a result, our understanding of the relationship between knowledge and power in the process of textual production undergoes a reorientation (Dennis, 2024; Foucault, 1995). Power is instrumentalized to shape our behavior to others’ commercial ends. In this model, “instrumentarian power aims to organize, herd, and turn society to achieve a similar social confluence, in which group pressure and computational certainty replace politics and democracy, extinguishing the felt reality and social function of an individualized existence” (Zuboff, 2019, p. 21). Zuboff also reported that this produces an unprecedented concentration of knowledge and power that results in a pathological division in learning. Digital technology invigorates the alliance between knowledge and power expressed by Foucault (1980), thus reflecting the increasing changes in the relations between labor and learning in the twenty-first century.

In fact, the unprecedented asymmetries of knowledge and power that surveillance capitalism and shadow texts produce threaten to make learning in the digital sphere another site of injustice and inequality, far beyond the reach and regulation of



professional educators and their pedagogical imperatives (Behrens, 2009; Möllers et al., 2019; Morris & Stommel, 2018; Zuboff, 1984). For example, Zuboff (2019, p. 327) reported, “We have no formal control because we are not essential to the market action. In this future, we are exiles from our own behavior, denied access to or control over knowledge derived from our experience.” She also claimed, “Knowledge, authority, and power rest with surveillance capital, for which we are merely ‘human natural resources’” (2019, p. 327). Moreover, this extreme asymmetry of knowledge and power creates a dangerous form of inequality that finds expression in the division of learning, particularly when one’s efforts to contest or reform this dynamic are nearly impossible because the capabilities of surveillance capitalists are largely hidden or invisible (Zuboff, 1984, 2019). It is Foucault (1995, p. 176) who proclaimed that a relation of surveillance is inscribed at “the heart of the practice of teaching, not as an additional or adjacent part, but as a mechanism that is inherent to it and which increases its efficiency.” Zuboff’s (2019) view of the new conditions of knowledge and texts because of digitalization and surveillance capitalism suggests that the same characterization may be applicable to learning. In fact, surveillance capacities are often embedded in the learning management platforms used to foster teaching and learning in education (Beetham & Sharpe, 2020; Srnicek, 2017; Williamson et al., 2020).

These developments might explain why Knox (2021) suggested that educators engage Zuboff’s ideas and their implications for the future of teaching and learning. He reported that technology companies such as Google have moved into mainstream educational spaces and positioned their vast technological resources and digital platforms at the center of teaching and learning (see Amiel et al., 2023; Stockman & Nottingham, 2022; Zhang, 2016). In fact, digital platforms may be the new terrain of pedagogy or the art of teaching. More specifically, Sefton-Green (2022) referred to digital platforms as *pedagogic devices*. He argued, “The emergence of digital platforms as a pre-eminent mode of economic, social, and political control is intricately related to the ways that schooling works across populations” (2022, p. 909). As digital spaces with surveillance and discursive dimensions, digital platforms are akin to classrooms in that both are sites where social interactions and pedagogy textualize experiences and normalize behavior. In other words, digital platforms transform teaching and learning, creating classrooms that we can never truly escape (Nichols & Garcia, 2022; Sefton-Green, 2022). They *datafy* and monitor learners as well as users, turning their experiences and social connections into texts for the ends of academic, state, or commercial actors. Texts make it possible to qualify, classify, and penalize others. As such, digital platforms are inherently pedagogical as well as architectonic, characterizing emergent institutions in which “three procedures are integrated into a



single mechanism: teaching proper, the acquisition of knowledge by the very practice of the pedagogical activity and a reciprocal, hierarchized observation (Foucault, 1995, p. 176).

In digital spaces, hierarchized observation is a form of surveillance that rests on individuals participating in a network of relations permeated by power and unequal social relations (Foucault, 1995; Zuboff, 2019). More specifically, digital platforms permit power to operate like complex machinery—because it is exercised through the networks that their software, hardware, and cloud-based services interconnect and integrate across space and time (Foucault, 1995; Sefton-Green, 2022; Zuboff, 2019). For some scholars, this infrastructure and its extractive protocols make the use of digital platforms in education another expression of surveillance capitalism (Amiel et al., 2023; Dennis, 2024; Lauer & Lipartito, 2021; Sefton-Green, 2022; Srnicek, 2017). For example, Stockman and Nottingham (2022) noted that surveillance capitalists are often the third-party providers who govern the digital platforms that facilitate the use of learning management technologies in education. These agents have come to dominate the academic protocols and infrastructures of many learning institutions on a mass scale, despite concerns about the *datafication* of education and routine misuse of teacher and student data. While they agree that these issues are important, Williamson et al. (2020) argued that the extraction of data from teachers and students to orient their behaviors cannot straightforwardly be assessed as another instantiation of surveillance capitalism. However, some critics disagree. They claim that our increasing reliance on digital platforms that commercialize surveillance, discourse, and pedagogy could threaten the democratizing effect of education and its role in preparing young people for their roles as citizens in a democratic society (Amiel et al., 2023; Nichols & Garcia, 2022; O’Neill, 2023; Stockman & Nottingham, 2022).

However, Zuboff (2019) and Knox (2021) suggested that surveillance capitalism and its extraction protocols indicate that the digital landscapes in which teaching and learning now occur are inherently asymmetrical and undemocratic. Therefore, our understanding of learning needs to be reimaged to account for this new reality, which could be challenging. Many educators value learning as both a noun and a verb. When used as a verb, the word *learning* denotes the integration of new and old knowledge or experiences for general or purposive uses. Its revaluation and repurposing in the digital sphere are not rooted in technology per se, but what Feenberg (2002, p. 3) called “the antidemocratic values” that govern and organize technological development. These values have been highlighted by Foucault’s (1995) and Zuboff’s (2019) assessments of surveillance and the textualizing processes and practices that make it operable. However, what we discover is that the very act of operationalizing surveillance



technology and digital platforms often reproduce the kind of social and economic inequities that many educators hope to transform (Feenberg, 2002; Komljenovic, 2021; Morris & Stommel, 2018; Srnicek, 2017). If fundamental changes are to occur, then we may need new theories of technology as well as additional metaphors, models, and points of view that can help scholars and teachers to understand and explicate the complex role that interdiscursivity and texts play in this new landscape where surveillance technologies condition labor as well as learning in the digital age. More importantly, these explanatory tools must be able to work across social, cultural, and disciplinary divides and discourses. According to Lauer and Lipartito (2021), we must imagine such tools beyond the constraints of *presentism* or the study of surveillance capitalism detached from history and philosophy. Therefore, I propose architectonics as one novel consideration, particularly for future studies of surveillance and discourse as overlapping forms of interdisciplinarity.

Conclusion

As a metaphor and paradigm, architectonics is an interdisciplinary term with a long life in the Western intellectual tradition. It has been central to our understanding of the interrelations among the various domains of the academic sciences and how one area of thought influences the observations, judgments, and practices in another. As such, thinkers from Kant to Foucault and beyond have calibrated this term for a variety of philosophical, educational, and aesthetic purposes. What becomes increasingly apparent in this lineage is that architectonics foregrounds much of our contemporary thinking in discourse studies, surveillance studies, and digital education (see Wellmon, 2015). Yet, it is largely absent or undervalued in our academic conversations and scholarship in these areas—partly due to our preoccupation with the character of Foucauldian panopticism, especially in surveillance studies.

However, this survey has revealed why it is worth considering accordant concepts such as architectonics, particularly in Foucault's oeuvre. Foucault (1977) appreciated the term in ways that help us to understand the qualities and properties in texts that make them constituents of surveillance, vectors of power, and warrants for retheorizing teaching and learning in the digital age. As such, architectonics may prove to be the kind of metaphor and paradigm that we need in education in the era of shadow texts, surveillance capitalism, and platform pedagogy. If these features are any indication of our digital trajectory, then we must recognize the significance of the character of texts and recognize how text-making properties enabled by digitalization, artificial intelligence, and surveillance capitalism challenge many of our views and presuppositions about the protocols, organization, and aims of knowledge and learning.



The vast amount of data generated by digitalization is increasingly proprietary, asymmetrical, and antidemocratic due to the surveillance and monetization practices inherent in surveillance capitalism. Therefore, discourse and texts may be inseparable from our understanding of surveillance capitalism and its pedagogical practices and platforms. As surveillance capitalists and their extraction architecture and agents are increasingly incentivized by monetization and market share, we will likely see erosions in our systems of education that undermine the best practices of educators and the rhetoric of equality that they often espouse.

References

- Allen, G. (2022). *Intertextuality* (3rd ed.). Routledge.
- Amiel, T., Saraiva, F., Cruz, L. R. D., & Gonsales, P. (2023). Mapping surveillance capitalism in South American higher education. *Revista Latinoamericana de Tecnología Educativa*, 22(1), 221-239.
- Atkins, R. K. (2014). The forgotten science: Architectonics and its importance. *History of Philosophy Quarterly*, 31(4), 369-392.
- Bakhtin, M. (1986). *Speech genres and other late essays* (M. Holquist & C. Emerson, Eds., V. W. McGee, Trans.). University of Texas Press.
- Bakhtin, M. (1990). *Art and answerability: Early philosophical essays by M. M. Bakhtin* (M. Holquist & V. Liapunov, Eds., V. Liapunov, Trans.). University of Texas Press.
- Ball, K. S., & Haggerty, K. D. (2005). Doing surveillance studies. *Surveillance & Society*, 3(2/3), 129-138.
- Beetham, H., & Sharpe, R. (Eds.). (2020). *Rethinking pedagogy for a digital age: Principles and practices of design* (3rd ed.). Routledge.
- Behrens, S. (2009). Shadow systems: The good, the bad and the ugly. *Communications of the ACM*, 52(2), 124-129.
- Boje, D. M. (2008). *Storytelling organizations*. Sage.
- Brunon-Ernst, M. A. (Ed.). (2016). *Beyond Foucault: New perspectives on Bentham's panopticon*. Ashgate Publishing.
- Bush, V. (1945, July). As we may think. *Atlantic Monthly*, 176(1), 101-108.
- Caluya, G. (2010). The post-panoptic society? Reassessing Foucault in surveillance studies. *Social Identities*, 16(5), 621-633.
- Dennis, J. (2020a). The Kantian effect: Reconceiving the integration of knowledge in interdisciplinary theory. *Journal of Interdisciplinary Sciences*, 4(2), 1-14.
- Dennis, J. (2020b). Languaging network learning: The emergence of connectivism in



- architectonic thought. *The International Review of Research in Open and Distributed Learning*, 21(3), 304-318.
<https://doi.org/10.19173/irrodl.v21i3.4718>
- Dennis, J. (2022a). Peircean architectonics in the discourse and digitalization of interdisciplinarity. *Journal of Interdisciplinary Sciences*, 6(2), 1-20.
- Dennis, J. (2022b). (Re)framing our frames: Architectonics, intertextuality, and the scholarship of integration in online education. *Canadian Journal of Learning and Technology*, 48(2), 1-17. <https://doi.org/10.21432/cjlt28123>
- Dennis, J. (2024). Capitalizing networked learning: Connectivism, multiliteracies and the architectonics of pedagogy. *Journal of Contemporary Issues in Education*, 19(1), 138-167. <https://doi.org/10.20355/jcie29626>
- Doyle, M. R., Savić, S., & Bühlmann, V. (2019). Introduction—ghost of transparency: Shadows cast and shadows cast out. In M. R. Doyle, S. Savić & V. Bühlmann (Eds.), *Ghosts of transparency: Shadows cast and shadows cast out* (Vol. 13, pp. 8-19). Birkhäuser.
- Duddy, M. C. (2018). The ends of reason: Towards an understanding of the architectonic. *Journal of Aesthetics and Phenomenology*, 5(1), 1-13.
- Everett, A. (2003). Digitextuality and click theory: Theses on convergence media in the digital age. In A. Everett & J.T. Caldwell (Eds.), *New media: Theories and practices of digitextuality* (pp. 3-28). Routledge.
- Fairclough, N. (2013). *Language and power* (2nd ed.). Routledge.
- Feenberg, A. (2002). *Transforming technology: A critical theory revisited*. Oxford University Press.
- Fetzer, J. H. (2001). *Computers and cognition: Why minds are not machines*. Springer/Kluwer Academic Publishers.
- Fetzer, J. H. (2004). The philosophy of AI and its critique. In L. Floridi (Ed.), *The Blackwell guide to the philosophy of computing and information* (pp. 117-134). Blackwell Publishing.
- Foucault, M. (1977). *Language, counter-memory, practice: Selected essays and interviews by Michel Foucault* (D. F. Bouchard, Ed., D. F. Bouchard & S. Simon, Trans.). Cornell University Press.
- Foucault, M. (1980). *Power/knowledge: Selected interviews and other writings, 1972-1977* (C. Gordon, Ed.). Pantheon Books.
- Foucault, M. (1981). The order of discourse. In R. Young (Ed.), *Untying the text: A post-structuralist reader* (pp. 48-78). Routledge & Kegan Paul.
- Foucault, M. (1982). The subject and power. *Critical Inquiry*, 8(4), 777-795.
- Foucault, M. (1995). *Discipline and punish: The birth of the prison* (A. Sheridan, Trans.). Vintage Books.



- Foucault, M. (2000). *Michel Foucault: Power* (J. Faubion, Eds., R. Hurley & others, Trans.). The New Press.
- Foucault, M. (2010). *The archaeology of knowledge: And the discourse on language*. (A. Sheridan, Trans.). Vintage Books.
- Garnar, A. W. (2020). *Pragmatism, technology, and the persistence of the postmodern*. Lexington Books.
- Gazoni, R. M. (2016). Creative thinking in artificial intelligence: A Peircean account. *2016 International Conference on Computational Science and Computational Intelligence (CSCI)*, Las Vegas, Nevada (pp. 537-540). Institute of Electrical and Electronics Engineers.
- Giddens, A. (1987). *The nation-state and violence: Volume two of a contemporary critique of historical materialism*. University of California Press.
- Gross, D. M. (2000). Melanchthon's rhetoric and the practical origins of Reformation human science. *History of the Human Sciences*, 13(2), 5-22.
- Haggerty, K. (2006). Tear down the walls: On demolishing the panopticon. In D. Lyon (Ed.), *Theorising surveillance: The panopticon and beyond* (pp. 23-25). Routledge.
- Haghighi, F. (2018). *Is the Tehran bazaar dead? Foucault, politics, and architecture*. Cambridge Scholars Publishing.
- Hawkins, D. (1994). Constructivism: Some history. In P. Fensham, R. Gunstone & R. White (Eds.), *The content of science: A constructivist approach to its teaching and learning* (pp. 9-13). The Falmer Press.
- Hirst, P. (1993). Foucault and architecture. *AA Files*, 26, 52-60.
- Holquist, M. (1990). *Dialogism: Bakhtin and his world*. Routledge.
- Hope, A. (2013). Foucault, panopticism and school surveillance research. In M. Murphy (Ed.), *Social theory and education research: Understanding Foucault, Habermas, Bourdieu, and Derrida* (pp. 35-51). Routledge.
- Hovestadt, L. (2009). *Beyond the grid—architecture and information technology: Applications of a digital architectonic*. Birkhäuser.
- Hovestadt, L., Hirschberg, U., & Fritz, O. (Eds.). (2020). *Atlas of digital architecture: Terminology, concepts, methods, tools, examples, phenomena*. Birkhäuser.
- Hui, Y. (2016). *On the existence of digital objects*. University of Minnesota Press.
- Johnson, M. R. (2015). Aristotle's architectonic science. In D. Ebrey (Ed.), *Theory and practice in Aristotle's natural science* (pp. 163-186). Cambridge University Press.
- Kant, I. (1979). *The conflict of the faculties* (M. Gregor, Trans.). University of Nebraska Press. (Original work published 1798)
- Kant, I. (2007). *Critique of pure reason* (N. K. Smith, Trans.). Palgrave Macmillan. (Original work published 1787)

- Karatani, K. (2005). *Transcritique: On Kant and Marx* (S. Kohso, Trans.). MIT Press.
- Kavanaugh, L. J. (2007). *The architectonic of philosophy: Plato, Aristotle, Leibniz*. Amsterdam University Press.
- Khaghani, S. (2019). Foucault and the idea of 'architectonic discourse' or how to read others' history. *Cogent Arts & Humanities*, 6(1), 1-12.
- Knox, J. (2021). Refocusing Zuboff's 'division of learning' on education. *Seminar.net: International Journal of Media, Technology & Lifelong Learning*, 17(2). <https://doi.org/10.7577/seminar.4268>
- Komljenovic, J. (2021). The rise of education rentiers: Digital platforms, digital data and rents. *Learning, Media and Technology*, 46(3), 320-332.
- Kristeva, J. (1986). *The Kristeva reader* (T. Moi, Ed.). Columbia University Press.
- Landow, G. P. (2006). *Hypertext 3.0: Critical theory and new media in an era of globalization*. The Johns Hopkins University Press.
- Lauer, J., & Lipartito, K. (2021). *Surveillance capitalism in America*. University of Pennsylvania Press.
- Liszka, J. J. (1996). *A general introduction to the semeiotic of Charles Sanders Peirce*. Indiana University Press.
- Lorenzini, D., & Tiisala, T. (2024). The architectonic of Foucault's critique. *European Journal of Philosophy*, 32(1), 114-129.
- Lyon, D. (2006). (Ed.). *Theorising surveillance: The panopticon and beyond*. Routledge.
- Lyon, D. (2022). Reflections on forty years of 'surveillance studies'. *Surveillance & Society*, 20(4), 353-356.
- Lyotard, J. F. (1984). *The postmodern condition: A report on knowledge* (G. Bennington & B. Massumi, Trans.). University of Minnesota Press.
- Manchester, P. (2003). Kant's conception of architectonic in its historical context. *Journal of the History of Philosophy*, 41(2), 187-207.
- Marx, G. T. (2012). Preface: 'Your papers please': Personal and professional encounters with surveillance. In K. Ball, K. Haggerty & D. Lyon (Eds.), *Routledge handbook of surveillance studies* (pp. xx-xxxi). Routledge.
- Mathiesen, T. (1997). The viewer society: Michel Foucault's 'panopticon' revisited. *Theoretical Criminology*, 1(2), 215-234.
- Matthewman, S. (2013). Michel Foucault, technology, and actor-network theory. *Techné: Research in Philosophy and Technology*, 17(2), 274-292.
- McKeon, R. (1987). *Rhetoric: Essays in invention & discovery* (M. Backman, Ed.). Ox Bow.
- Möllers, N., Wood, D. M., & Lyon, D. (2019). Surveillance capitalism: An interview with Shoshana Zuboff. *Surveillance & Society*, 17(1/2), 257-266.



- Morris, S. M., & Stommel, J. (2018). *An urgency of teachers: The work of critical digital pedagogy*. Hybrid Pedagogy, Inc.
- Nelson, T. H. (1987). *Computer lib/dream machine* (2nd ed.). Tempus Books/Microsoft Press.
- Nichols, T. P., & Garcia, A. (2022). Platform studies in education. *Harvard Educational Review*, 92(2), 209-230. <https://doi.org/10.17763/1943-5045-92.2.209>
- Niesche, R. (2010). Discipline through documentation: A form of governmentality for school principals. *International Journal of Leadership in Education: Theory and Practice*, 13(3), 249–263.
- Noddings, N. (2016). *Philosophy of education* (4th ed.). Routledge.
- O'Neill, J. (2023). The degradation of teachers' work, loss of teachable moments, demise of democracy and ascendancy of surveillance capitalism in schooling. *Teachers' Work*, 20(2), 179-189.
- Peirce, C. S. (1887). Logical machines. *The American Journal of Psychology*, 1, 165-170.
- Peirce, C. S. (1891). The architecture of theories. *The Monist*, 161-176.
- Peirce, C. S. (1931). *Collected papers of Charles Sanders Peirce* (Vols. 1-2). (C. Hartshorne & P. Weiss, Eds.). Belknap Press.
- Peirce, C. S. (1955). *Philosophical writings of Peirce* (J. Buchler, Ed.). Dover.
- Pietarinen, A. V. (2006). Interdisciplinarity and Peirce's classification of the sciences: A centennial reassessment. *Perspectives on Science*, 14(2), 127-152.
- Piro, J. M. (2008). Foucault and the architecture of surveillance: Creating regimes of power in schools, shrines, and society. *Educational Studies*, 44(1), 30-46.
- Prawat, R. S. (2001). Dewey and Peirce, the philosopher's philosopher. *Teachers College Record*, 103(4), 667-721.
- Sefton-Green, J. (2022). Towards platform pedagogies: Why thinking about digital platforms as pedagogic devices might be useful. *Discourse: Studies in the Cultural Politics of Education*, 43(6), 899–911. <https://doi.org/10.1080/01596306.2021.1919999>
- Smith, G. J., San Roque, M., Westcott, H., & Marks, P. (2013). Surveillance texts and textualism: Truth-telling and trust-making in an uncertain world. *Surveillance & Society*, 11(3), 215-221.
- Srnicek, N. (2017). *Platform capitalism*. Polity Press.
- Stockman, C., & Nottingham, E. (2022). Surveillance capitalism in schools: What's the problem? *Digital Culture & Education*, 14(1), 1-15.
- Strickland, L., & Lewis, H. R. (2022). *Leibniz on binary: The invention of computer arithmetic*. MIT Press.

- Watson, W. (1993). *The architectonics of meaning: Foundations of the new pluralism*. The University of Chicago Press.
- Wellmon, C. (2015). *Organizing Enlightenment: Information overload and the invention of the modern research university*. The Johns Hopkins University Press.
- Werkmeister, W. H. (1980). *Kant: The architectonic and development of his philosophy*. Open Court.
- Williamson, B., Bayne, S., & Shay, S. (2020). The datafication of teaching in higher education: Critical issues and perspectives. *Teaching in Higher Education*, 25(4), 351-365.
- Wood, D. (2003). Foucault and panopticism revisited. *Surveillance & Society*, 1(3), 234-239.
- Wood, D. (2007). Beyond the panopticon? Foucault and surveillance studies. In J. W. Crampton & S. Elden (Eds.). *Space, knowledge and power: Foucault and geography* (pp. 245-263). Ashgate.
- Ypi, L. (2021). *The architectonic of reason: Purposiveness and systematic unity in Kant's Critique of Pure Reason*. Oxford University Press.
- Zhang, M. (2016). *Teaching with Google classroom*. Packt.
- Zuboff, S. (1984). *In the age of the smart machine: The future of work and power*. Basic Books.
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. Public Affairs/Hachette.

Paper Received June 25, 2024; Accepted October 15, 2024; Published November 2, 2024

