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Capitalizing on Knowledge Mapping Intersections Between Cognitive Capitalism and Education

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Abstract

Cognitive capitalism represents an extension of capitalism that involves the valorization of knowledge and knowledge labor. With the university as a crucial site of knowledge work, the implications of cognitive capitalism become of great significance. This essay functions as a critical way of understanding cognitive capitalism for educators. First utilizing Marxist theory, the origins of cognitive capitalism are examined as the social nature of capital enables the valorization of cognitive labor. Afterward, pertinent features of cognitive capitalism and how the production of knowledge commodities supplants non-commodified forms of knowledge. This discussion leads to an analysis of the relation between cognitive capitalism and education where educator recast as a commodified process holds problematic implications for the work educators perform and their relationships with students.



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Knowledge for Sale

Capital's stake in systems of education substantially increases with each passing year. The university, both directly and indirectly, functions as means to train, discipline, and supply potential labor into systems of production. Moreover, the university, itself, is becoming an increasingly capitalized site. From the perspectives of knowledge and commodity production, universities form partnerships with businesses or even discard the intermediary entirely and embrace a manner of corporatized organization. In terms of how labor is structured in the university system and how the educational process is more clearly rendered in a commodified form, the line between university and factory is blurring to a point beyond recognition. All of these developments, recent and longstanding, can be located in the theorization of a specific strand of capitalism, one that is not exclusively associated with conventional modes of production, but possesses an intellectual modality that coincides with the terrain of capitalism and the material reality of the twenty-first century.

The theory and analysis of cognitive capitalism best represent the tools needed to critique the relationship between modern day capitalism and the university experience. Spurred by manufacturing decreases in the United States, increased technological dynamism, and the valorization of communication and information generation and services, cognitive capitalism holds powerful implications for contemporary political economy and education. Other variants of cognitive capitalism are concepts like the knowledge, information, and creative economy, and while each holds particular elements, cognitive capitalism serves as a useful term to unite the foundational components of these variants. In the book, Cognitive Capitalism, Yann Moulier Boutang (2011) defines it in the following manner: "By cognitive capitalism we mean, then, a mode of accumulation in which the object of accumulation consists mainly of knowledge, which becomes the basic source of value as well as the principle location of the process of valorisation" (p. 57). Therefore, within the realms of cognitive capitalism, knowledge becomes the primary commodity, and its production, circulation, and consumption all represent critical points of contention where the questions of ownership and profit actualize new modes of critique. The knowledge commodity, at times, functions like more conventional commodities, particularly when one situates it in the network of capitalist circulation. However, knowledge still maintains a somewhat mystified place in society, possessing a powerful impact even in its largely immaterial constitution.

The university remains the principal site of knowledge production. Every year, teachers and students come together and actualize the knowledge harvested by previous generations in order to put that knowledge into practice as well as create new knowledge paradigms. Cognitive capitalism, in numerous ways, motivates certain parties to exploit this process for profit, irrecoverably changing it from a humanist tradition to a capitalist one. This paper will employ Marxist theory to trace cognitive capitalism's origins, map its terrain in the contemporary political economy, and understand its implications for the university. In mapping the intersections between cognitive capitalism and education, the pertinent question regarding the future of education will be brought to the forefront as educators are compelled to make difficult choices regarding their practice in the face of growing political economy of intellectual labor and production.

Looking to Marx when Capital Evolves

Cognitive capitalism should not be construed as a purely twenty-first century phenomena, but instead is a manifestation of themes and processes inherent in Marx's original analysis of capitalism. Alex Means (2011) emphasizes a creative modality to capitalism fundamental to its composition: "capitalism is eminently creative. It is system based on unlimited expansion and the necessity to perpetually overcome its own internal and external limits. New outlets for profits have to be continuously found in order to ensure the generation and reinvestment of capital surpluses" (p. 212). One of the most powerful sustaining elements of capitalism, an element that has contradicted the prophesy of Marxist theorists predicting its collapse, is its creativity. Against its painful contradictions, against its propensity towards crisis, the capitalist system, populated with clever people at every stage, is empowered by a thriving creative force. Capital is never a single static entity. Instead, it is a vast array of processes in perpetual flux, each shedding its skin to more acutely correspond with a new market, a new technological revolution, or a new productive paradigm. In the first volume of *Capital*, Marx (1990), himself, introduces this concept:

Modern industry never views or treats the existing form of a production process as the definitive one. Its technical basis is therefore revolutionary, whereas all earlier modes of production were essentially conservative...At the same time, it thereby also revolutionizes the division of labour within society, and incessantly throws masses of capital and of workers from one branch of production into another. (p. 617)

Even in the mid-1800s, Marx could see that, despite its world-changing influence, the industrial production process, ushered by the Industrial Revolution, was but a mere stop on perpetual revolution in production. New technology, production processes, and markets—all facilitated by gains in human knowledge—would establish a phoenix-character to capital, its death and resurrection flickering in the instant of dialectical synthesis. However, it is not solely these gains that establish the capital's creativity. The latter half of the passage describes the changing function of the worker as crucial to the revolutionary character of industry. For as capital circulation expands into new markets, as new modes of productions are created, workers must additionally migrate to these new fields of capital, generating the commodities and value necessary for industry to sustain itself.

This foreshadows the eventual transition of industrial capital to cognitive capital as does the following reflection from Marx (1991) in the third volume of *Capital*: "Capital, land, labour! But capital is not a thing, it is a definite social relation of production pertaining to a particular historical social formation, which simply takes the form of a thing and gives this thing a specific social character" (p. 953). Capital is a social relation that forges connections among the various hallmarks of the capitalist system: labor, the means of production, commodities, etc. Therefore, when we consider the basis of cognitive capitalism as an extension of Marx's reflections composed over 150 years ago, we witness that capital, itself, is a cognitive, socially-constructed concept. In considering cognitive capitalism more deeply, we should understand that it is not simply a contemporary construction fostered by, among other things, the explosion in information and communication technologies, but rather is the expansion of a cognitive facet that has been constitutional to capital since its very inception.

In approaching cognitive capitalism, Marx (1973) lay the groundwork for its conception in the *Grundrisse*: "the accumulation of knowledge and of skills, of the general productive forces of the social brain, is thus absorbed into capital, as opposed to labour, and hence appears as attribute of capital" (p. 694). Cognitive capitalism can thus be conceived as the magnification of two fundamental qualities of industrial capitalism. The first is the revolutionary, creative capacity within capitalist enterprise that calls for capital's perpetual reimagination. The second is capital's constitution as a social relationship. And now, there is ever present accumulation of not just land, labor, and the means of production, but also of knowledge. For it is not capitalism's creativity that sparks its revolutionary capabilities, but the creativity of the workers. Through the forces of labor and capital, this creativity is harvested and processed, remerging in productive processes and machinery and then later, in cognitive capitalism. Vincent Musco (2012) further breaks down this process: "nevertheless, as Marx describes it, the process of ever more deeply commodifying labour, including both intelligence and affect, demonstrates the need to expand these very human capacities. Capital no longer needed just the labourer as appendage to a machine; it needed then and needs now the full "social body" of the individual" (p. 573). The external forces of production and the labor that give these forces life proliferate outward from the formerly localized spheres of industry and inward into the social life and mind of the individual. More so than any form of capitalism, cognitive capitalism functions as a collapsing of the circuitry linking individual, commodity, and capital into a singular moment, and the university operates as one of the most productive grounds for these moments to take shape.

The Terrain of Cognitive Capitalism

With the origins of cognitive capitalism apparent in Marxist theory, one can build on these foundational elements to better understand the important nuances of cognitive capitalism. As previously noted, cognitive capitalism is not necessarily a new phenomenon born out of technological change, but rather is a reaction of the current economic context in which productive enterprises adapt and emphasize already inherent features of capital. As Robert Hutchinson (2008) writes: "this transition toward postindustrialism is marked by a continually decreasing manual labor component, organized around the production of goods, and a corresponding increase in scope and value of a knowledge labor component, organized around the provision of services" (p. 295). When countries outsource industrial production to other countries, develop new technology, and possess a large educated populace, cognitive capitalism thrives as a means to mine productivity from the local population. However, in lieu of that population of knowledge workers becoming empowered by their intellectual and creative potential, this collection of individuals experience similar modes of exploitation as industrial laborers. For cognitive capitalism, despite an altered focus, is still a form of capitalism, and all the features of capitalism that problematize the worker's experience-alienation. commodification of labor, and exploitation-are all still prevalent, though slightly modified considering the knowledge commodity that is produced.

When one considers the reflections from Marx that serve as a precursor to cognitive capitalism, there are clear lines of progression from Marx to scholars of cognitive capitalism. Knowledge becomes yet another frontier in which the contention of class struggle is waged. A noted theorist in this field, Carlo Vercellone (2005) argues that this production-based territory of cognitive capitalism holds two powerful implications for class struggle; first, knowledge becomes a mode of power relations that determine the intensity and temporality of labor, and

second, "who controls productive knowledge (which Marx refers to as the intellectual powers of production) can also aspire to manage production itself, that is to say, can determine the organization of labour and the social purpose of production" (p. 3). In this definition, cognitive capitalism becomes a meta-conversation that capital holds with itself. The fundamental questions that determine the nature of capital—the very questions of how capital, as a social relation, is exacted as a productive force—can be clearly rendered as epistemological inquiries, ways of knowing that unveil that dialectic that entwines capital with the social body of the working class.

In "Cognitive Capitalism and Global Crisis: Nothing Will Ever be the Same," Aleksandar Kešeljević and Vladimir Cvijanović (2001) further reflect on this notion: "through this socialisation process knowledge becomes materialised in machinery, teamwork, and in production-organisational process...The process of acquiring knowledge which is fundamentally related to the individual apparently generates positive externalities that are manifested at the organisational level" (p. 430). Such conclusions possess direct implications for the university experience as a site of knowledge acquisition and generation. Processes of learning, which once occurred outside the scope of capital, are now occurring, with increasing frequency, under capital's imperatives. The production of research and course content are now instances of knowledge production in which individuals and capital intertwine in tension. Edna Brophy (2011) writes, "Capital's move into the production and reproduction of immaterial commodities has created a different set of vulnerabilities and an additional set of antagonisms, all of which remain to be explored" (p. 411). The influence of cognitive capitalism on the university leaves acts of research and education to be susceptible to such adversarial conditions, leaving the university a highly contested realm of production where research, curriculum, grants, and other manners of enterprise are increasingly the focal point. Moreover, these forms of knowledge production are monitored by an increasing administrative class that ensures a continual flow of valorized knowledge capital. Sunil Sahasrabudhey (2011) describes the process of knowledge capitalization where "all knowledge at the site of production stands emaciated and alienated. Knowledge producers thus enter into a fundamental conflict with knowledge managers" (p. 44).

Once the pathway from knowledge to revenue is created, intellectual and creative labor bears the markings of a labor process that has been subjugated since capitalism's inception. Conflicts between productive workers and the managerial class ensue, which proves particularly problematic in realms of cognitive capitalism since the administrative class is often unfamiliar with the nuances of the knowledge labor that they control. Pressures to be more entrepreneurial—pressures that often run at cross purposes to the educational/knowledge generation process—are instilling a different modality to the university experience, but it runs further than that. Other pathways towards controlling knowledge labor—such as subdividing hierarchically among tenured faculty, adjunct labor, and graduate students—illustrate an even more alienating tendency in contemporary labor process; this form of alienation, via the division of labor, has always been a crucial component to the capitalist mode of production, but it is being applied to university labor with an increasing frequency while accomplishing similar outcomes as in the industrial factory. Not only does dividing knowledge labor enable universities to cut costs via wage manipulation, but it also serves as a disciplinary mechanism that dissuades individuals engaged in the labor to collaboratively dictate how that labor is employed.

Through these processes concerning labor, institutions and organizations influenced by cognitive capitalism can produce a variety of cognitive commodities. Any form of knowledge work falls in this vaporous realm as the further entrenchment of the culture industry, as once

critique by Horkheimer and Adorno so many years ago, leads to a formalization of systems and structures that blur the line between culture and commodity. Dan Schiller (2011) argues, "The mythology of creative destruction overshadows a more fundamental feature: the unleashing of a rampant impulse to commodification. Consider fee–based cultural commodities. Here a small group of companies, led by Apple, Amazon, Google, and Facebook, has muscled in on long–entrenched oligopolies over musical recording, books, games, and film" (p. 928). Moreover, reflecting on a work of art, a potential creative commodity, Laikwan Pang (2009) describes, how cultural artifacts now fall in line with capitalist logic: "Marx's description of industrial labor now applies to creative labor: the artist, who supposedly produces for the sake of his or her own self-expression, is estranged by his or her own products, which are subject to capitalist logic — these works are no longer ends in themselves, but are meaningful largely in their exchange values" (p. 58).

As will soon be discussed, the knowledge commodity, as a product of cognitive capitalism, holds similar implications for the university as well. The commodification of culture and knowledge, intangible processes made tangible under capital's alchemy, has transformed the elusive and organic to the readily accessible and commercialized; this transformation not only reconceptualizes the production of knowledge and culture, but the consumption side as well. Universities and corporations engage in forms of productive consumption, consuming the knowledge produced in research in order to facilitate other production processes, but students also represent a consumer class, one capable of further producing cognitive commodities. Nirmal Puwar and Sanjay Sharma (2011) argue that this process occurs at a global scale where "knowledge about otherness — ways of life, cross-cultural hybridities and geographies, emerging markets, technologies and communications — has become vital to producing a new information-rich, self-reflexive, educated class for the needs of transnational capital" (p. 46). The capital that Marx so thoroughly analyzed in his writings was one that struggled to overcome its limits: time, space, material, and nature. What makes cognitive capitalism such a profound development in capitalist accumulation is its ability to transcend its limits. Information and culture spring forth continually; human beings will, in and outside of educational systems, seek information and generate more. To commoditize the university experience is perhaps the closest that forces of capital will come to realizing a capitalism without limit.

The Knowledge Commodity's Implications for Education

With the themes of cognitive capitalism outlined, the focus turns to education where many of these themes are finely rendered in an embryonic state. Before knowledge can be redirected towards gains of capital, before knowledge commodities can be produced and sold, knowledge must first be acquired by potential laborers, and therefore, the common starting point for cognitive capitalism is the university. Michael A. Peters and Ergin Bulut (2011) summarize this process: "in the new regime of labor processes, knowledge and skills occupy the central place with an accent on education, training, and retraining and infrastructures that promote and facilitate new forms of learning and sharing ideas with greater worker individualization, discretion and judgment" (p. xxxii). With each passing year, the demands for a better educated labor force grow louder and louder, and educational institutions, through a variety of measures, reformulate themselves in order to answer these demands. However, in an effort to appease the demands of capital, the university experience becomes problematized by two particular variants of cognitive capitalism.

As previously discussed, the first variant of cognitive capitalism arises from the inherent tendencies of capital itself, for capital is, above all else, a dynamic social relation connecting all features of the production process; it is, in essence, an immaterial construct with material consequences, and within this ever-changing polymer, the tendencies of capital—proclivities towards growth, accumulation, and exploitation—spread outwards into other spheres of society, capitalizing them to produce greater profit. Although the university system developed a relationship with the world of work from nearly the very outset, its internal constitution retained a measure of distinction. Colleges and universities were not organized like businesses and factories, but under the influence of cognitive capitalism and the pursuit of the knowledge commodity, this distinction has become obscured. In *Factories of Knowledge: Industries of Creativity*, Gerald Raunig (2013) describes the twenty-eight tendencies of the modulating university, a set of theses—revolving around knowledge production, surveillance, debt, and power struggle—that locate intersections between cognitive capital and the university. The first of these tendencies is as follows:

The modulating university fabricates a system for measuring and striating all aspects of knowledge production, ranging from the credit points awarded to students to the "impact factors" and other economic evaluating of faculty, from time–tracking in the centers of administration to that of subcontracted services and security, from the international ranking of the universities themselves to that of the journals relevant to each academic discipline. (p. 31)

Capital is a social relation, but it is a social relation with defined purpose and outcomes, those connecting back towards accumulation via the extraction of surplus value through labor. The relationship between the social relation and this purpose leads to the social relation becoming loaded with ideology and action that facilitate the purpose. Therefore, labor, as a human activity once outside the capitalist mode of production, looks quite different once capitalized. The university follows suit. The social relations connecting various spheres and activities within higher education now, as Raunig describes, pulse with capitalist directives focused on reifying and quantifying value, managing labor, and ensuring that the knowledge produced and transmitted to the student population is done so in a fashion towards generating as much surplus as possible to then be reinvested for the university to expand.

This critique traverses further, past the material realm, into the very ontology of the university—its purpose and constitution. Vidya Ashram (2009) situates this analysis in relation between knowledge and power, arguing that "the university became complicit in suppression of society's knowledge. The bargain that the university made offered a space of pure enquiry, of knowledge for knowledge's sake, of pursuit of knowledge without interference from power. The university defended this privilege as much as it could. Now this privilege is being withdrawn" (p. 165). Ashram constructs a powerful epistemological claim regarding the nature of the university. Relations within capital, cognitive or industrial, are, almost without exception, relations that bear the bindings of control. This control runs at cross purposes with the process of knowledge production. This is not to contend that capital is unable to facilitate knowledge production, for a great many discoveries and innovations have occurred within capitalist frameworks. However, these discoveries and innovations are laden with the social and material principles of the framework that produced them. The work of the university and its mission of "pure enquiry" and open learning are comprised when influenced by framework of cognitive capitalism, thus

representing a constitutional shift in the university towards the production of knowledge commodities.

This leads to the second variant of cognitive capitalism. There have been several lamentations regarding the commodification of education, the reduction of educational experiences to packages of knowledge, bought and sold primarily to be redirected into fields of labor. Among these critics, A.O. Karpov (2013) writes the following: "the institution of education has been drawn into formulating the rules of existence for an environment that is socially and culturally conflicted. It has ceased to be a place of cognitive stability, an instrument of enclosed socialization, a community with a rigidly structured system of roles" (p. 24). The relationship between the two forms of cognitive capitalism synthesizes fluidly, one feeding the other. The material conditions fostered by the immaterial nature of capital and its relation to knowledge (typified by the first form) influence the generation of knowledge commodities laden with the influence of capital (the second form), which, in turn, further reinforce capital, itself. The knowledge commodity, as described by Karpov and others, is rife with the capitalist imperatives, for once something obtains the commodity form, the shell that facilitates its consumption fuses into the object itself.

To commodify something is to irrecoverably change it. Marx famously begins the journey of *Capital* from the launching point of the commodity, and many scholars have pontificated as to why this is the case. One reading, of relevance here, is that Marx attempts to analyze the world from the lens of capital on its own terms, and to do so, the objects populating it are not neutral objects rife with use-values, but rather commodities entrenched in the social relation that is capital, deeply connected to modes of production and consumption as well as its exchange-value or relation to money. In this case, knowledge becomes something quite different in its commodification, primarily in two ways. The first is the internal makeup of knowledge itself, which is spliced with ideology of capital with a particular teleological basis. Knowledge commodities cannot be obtained disinterestedly; there is usually an end in mind. This end typically revolves around further reinforcing the rule of capitalism, and when one considers education-as-knowledge-commodity, this end is connected to labor. Therefore, education-as-knowledge-commodity, in relation to cognitive capitalism, represents the initial acquisition of skills and competencies necessary to produce in the spheres of cognitive capitalism.

The second distinction between knowledge and the knowledge commodity consists of one's relation to it, the external and active character of cognitive capitalism. From the outset of the discussion, how one obtains and uses knowledge is of keen interest in defining that knowledge. When one pursues knowledge in its non-commodified form, there are more organic contexts surrounding the knowledge and the terms of its acquiring. The social relation between the educator and educated can be defined by themselves, and the subsequent use of the knowledge is empowered by greater autonomy. This is not so if the educational environment is heavily influenced by cognitive capitalism, and the knowledge acquired is commodified.

In this situation, the knowledge is defined by the terms of capital; exchange value mediates the relationship between educator and student, and the recasting of students as customers becomes a more potent reality. David Noble (2002) writes about this tendency in "Technology and the Commodification of Higher Education," arguing that this process "requires the interruption of...fundamental educational process and the disintegration and distillation of the educational experience into discrete, reified, and ultimately saleable things or packages of things" (p. 28). Cognitive capitalism is not merely the appropriation of forms of knowledge in

the production process, but in certain situations, modes of cognitive capitalism externalize and materialize intangible concepts to facilitate commodification.

The relationship between teachers and students in an educational process is powerful and elusive process, one that is not easily rendered as a commodity. However, that does not prevent for-profit institutions and other individuals from trying, sifting away that which makes education an enlightening and even liberatory experience—that specific moment when individuals gather together at a specific time and place in the spirit of learning—in order to facilitate a marketization of education. Informational modules, different modes of assessment, and recorded lectures and PowerPoints, one cannot create a classroom with merely these things, but the manner through which these facets of education interface with the students and teachers enable them to adequately act as a simulacrum of the educational experience.

The rather unfortunate element of cognitive capitalism, at an educational level, is that there is so much unrealized possibility for education in the twenty-first century. Each technological innovation enables new opportunities to learn from and collaborate with other people, but the immediate capitalization of these innovations constricts these possibilities. In the "Manifesto for Education in the Age of Cognitive Capitalism: Freedom, Creativity and Culture," Michael A. Peters (2011) highlights a mode of tension between educational and intellectual freedom and the interests of corporations: "today the value of freedom in relation to the distribution, access and exchange of knowledge is under threat at an historical moment that also provides unparalleled opportunities for the establishment of open global architectures for knowledge, science, learning and education - for a form of the globalization of knowledge and education not controlled by the new information corporations" (p. 394). With the increasing power of communication technology and the globalized network this technology facilitates, the potentiality for education multiples exponentially, enabling countless individuals to access educational opportunities never before available. However, in the limitlessness of knowledge potential, markets in cognitive capital construct walls between individuals and knowledge and shape the contours of how that knowledge is produced and accessed.

The rise of cognitive capitalism ultimately represents a severe narrowing of the content, activity, and definition of education (in exchange for an expanding of the production and consumption of educational commodities). Educators are increasingly conceived as producers of the knowledge commodities consumed by students who then apply these commodities in service to capital in future labor opportunities. While this may reinforce cognitive capitalism as a system of knowledge, one must consider what is lost in the process as the increased uniformity instilled in the knowledge produced and the means of transmission reduce the dynamic and exciting potentialities in education, perhaps leading to a population of better knowledge workers at the cost of knowledgeable individuals.

Conclusion: A Path in the Sea

Rooted in the very capital Marx analyzed in the nineteenth century, cognitive capitalism expands the dominion of capital into spheres formerly unreachable. The production of knowledge commodities and the capitalization of formerly unproductive, immaterial labor have a profound impact on education where acquiring knowledge still remains the primary activity. Now knowledge is laden with contextual exchange value, its value determined by the extent to which it facilitates the circuit of capital. Numerous facets of the contemporary higher education

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experience—the curriculum, the relation between educators and students, the rise of online education, the way universities are marketed, how research is produced, how students perceive the value of education, and so forth—bears, at least in some measure, the mark of cognitive capitalism. And for those educators concerned with the implications of this development, the question remains: what is to be done?

As with the origins of cognitive capitalism, one can return to Marx to ascertain a possible answer, for just as with the struggles surrounding industrial capitalism, the answer lies with the worker. Educators, as the producers and transmitters of the knowledge commodity, still have a stake (albeit one that is gradually being reduced) in how their work is performed. Moreover, when one considers the relationship the educator holds with the knowledge he or she possesses, a powerful epistemology is unveiled. Periklis Pavlidis (2012) lights a path to this epistemology: "in order for someone to teach, he/she must be in a position to reflect upon the dominant forms of knowledge in relation to the whole reflection upon social reality (on the needs, problems, contradictions of the epoch) and to the comprehension of the personalities he/she teaches" (p. 46). In this reflection, Pavlidis is emphasizing the activity, the praxis, integral to knowledge. Knowledge is increasingly commodified, but it does not have to be. Educators do not have to be bearers of knowledge, bestowing it upon the paying customer, but rather, through the activity of education, can instill a powerful critical dynamism that locates knowledge within its material context. Within all fields of knowledge, there is a capacity for critique, and educators, working with their students, are among the most capable in revealing the critical agency within their respective disciplines. However, just as with the capitalization of knowledge, imparting knowledge as critical praxis is not a given. The educator must choose to reflect on the nature of the knowledge that he or she shares in the classroom, for there is a choice to be made here between the passive/active and capital/critical polarities of knowledge, and the anti-capitalist poles of these binaries prove considerably more difficult to embrace.

Cognitive capitalism is a movement within contemporary capitalism that consists of the commodification of knowledge and other products of knowledge labor; it is not a replacement of industrial capital, nor is it some profound paradigm shift that will serve as the primary oppressive force of an economy heavily populated with knowledge workers. Instead, it is an extension of capital, one facilitated by the rapid development and proliferation of communication technology and the increased commodification of formerly unproductive intellectual labor. In this context, cognitive capitalism has significant implications for the future of education as the university system, increasingly entwining itself with the fields of labor and production, render its services in an increasingly commodified form, reflecting the initiatives of capital that are already exerting influence on how the university functions. For those educators interested in the critical modalities of their work, understanding the origins, elements, and outcomes of cognitive capitalism is important. The tides of cognitive capitalism will continue to encroach into their classrooms, establishing a commodity-form to the relationships between educators and students, and educators will have to continue employing the knowledge they possess to repress this rising tide, lest education become further amalgamated in the uniform sea of commodities.

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