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Teaching and Learning in the Cloud: “Anywhere, Anytime.” Anybody, too?!

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Integration of Cloud Technologies in Digitally Networked Classrooms and Learning Communities

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Chapter 3

Teaching and Learning in the Cloud: “Anywhere, Anytime.” Anybody, Too?!

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ABSTRACT

Knowledge is no longer produced exclusively in the traditional class-based learning environment. For twenty-first century learners, digitally networked classrooms are the new social spaces where innovative learning perspectives are cultivated. However, like traditional class-based learning environments, digitally networked classrooms need to be sensitive to the social forces of race, gender, and class that will inescapably invade digital cultures. Therefore, even in the cloud, this chapter argues, “difference” as a concept is always already embedded as a contributing feature under which knowledge is constructed and constructing. To this end, this chapter suggests that a consideration of “difference” and its signifying effect on cloud pedagogy is a useful lens to explore the phrase “anywhere anytime” to the term “anybody” in the digitally networked classroom. Finally, this chapter proposes that the model “anywhere, anytime, anybody” must become part of the basic structure of a democratic and collaborative knowledge building community to democratize teaching and learning in the cloud.

INTRODUCTION

The only real voyage of discovery consists not in seeking new landscapes, but in having new eyes. — Marcel Proust, In Search of Lost Time

With the ever-increasing reliance on web-based learning environments such as Google Drive, Dropbox, iCloud, Web 2.0 tablets, twitter, and podcasts, knowledge building is being shaped and determined by people who may never meet in traditional class-based learning environments. For the twenty-first century, this is increasingly the rule, rather than the exception. As an interactive epistemic space, digitally networked classrooms have the potential to democratize learning by enabling all voices to share in

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knowledge building. Unlike traditional class-based learning environments where teaching and learning are still considered the best method for knowledge building, the social forces of race, gender, and class, still create imagined boundaries of difference between self and others. Although digitally networked classrooms have “positive effects that extend beyond the exact conditions of initial learning” (Bransford & Schwartz, 1999), what is overlooked are the social forces that function outside the cloud, which, I argue, will have some mediating effect on the social forces inside the cloud.

However, while I believe the notion of an “imagined community” (Anderson, 1983) in the cloud is quite possible, we must remain open to what, how, and why some groups are “imagined” into digitally networked learning communities and other groups are not. To be sure, this involves questions of power and agency (Foucault, 1982). For example, despite bodies being physically absent and invisible in the cloud, “issues of marking, racial and otherwise, are unavoidably part of [digitally networked classroom communities] signifying practices” (Nakaruma, Kolko, & Rodman, 2000), which will infect any notion of a collaborative knowledge building community. Therefore, the shift to teaching and learning “anywhere anytime” inevitably beckons more questions regarding knowledge building environments and particularly for digital natives (Palfrey & Grasser, 2008), whose social identities and mode of learning are the most constructed in digital cultures.

With this in mind, digitally networked classroom learning communities, like the cloud, are networked sites of conversation and conflict. To be sure, questions of pedagogy are involved given they are conceptual frameworks where teaching and learning is *constructed and constructing*. This is important since the “anywhere anytime” notion of learning is the new mantra in secondary and post-secondary education institutions. However, for some groups, the digital divide is a material reality and exclusionary practices are present despite the cross-cultural, multi-centric, trans-national, and global engagement initiatives that will continue to shape twenty-first century teachers and learners. In light of this, this chapter will address the role of cloud pedagogies as being blind to “difference” in digitally networked classroom learning communities. A stance, I believe, is counterintuitive to the collaborative intelligence goals and objectives. In fact, difference (in any form), is arguably one of the defining features of digitally networked classroom learning communities, since unlike encountering sameness, encountering difference asks teachers and learners to take part in “the reality of other possibilities, as well as the possibility of other realities” (Kessler & McKenna, p. 164).

This chapter, divided into three sections with the overarching goal of providing an alternate pedagogical account of digitally networked classroom learning communities and their power to democratize with “difference” as a salient feature in the cloud will shape the discourse in this chapter. The first section begins with an examination of current conceptual and theoretical notions of cloud pedagogy, which is important on two fronts. First, by individually exploring the terms “cloud” and “pedagogy” a critical analysis of their connection will give a clearer understanding of the implications and the presuppositions of the two terms when combined and adopted as “cloud pedagogy.” Second, it is important to demonstrate that pedagogies, such as “cloud pedagogies” are constructed; and therefore, imbue all of the failures of the social forces that mediate constructed notions of knowledge.

For example, what does racial, gender, sexuality and disability “difference” mean in a digitally networked community, if it means anything at all. Is this the new frontier of difference blindness? Accordingly, in the second section, I consider and characterize knowledge building in digitally networked classroom learning communities, and consider how difference is a counternarrative and yet despite difference as mediating collaborative intelligence, grand possibilities of transformation to difference are conceivable and achievable. The third section explores cloud pedagogies as a discursive site where

knowledge making is recursive; and thus, problematizes the phrase “anywhere anytime” to determine if it functions through “anybody” or just some bodies? That is, bodies of “difference” that are marked by race, gender, sexuality, and disability. I conclude with some broader thoughts on how cloud pedagogies affect the ontology of digitally networked classroom learning communities, when visual “difference” is invisible but imagined to promote a collaborative knowledge building community.

Cloud Pedagogy: An Introduction to a Curiously Cloudy Term

Despite the escalating use of the term “cloud computing” in secondary and post-secondary educational settings, the term “cloud” remains cloudy with no clear or coherent understanding for a global culture of expert and non-expert users obsessed with the internet and new technologies. To tack on the oft-used secondary and post-secondary phrase “pedagogy” behind the term “cloud” to form “cloud pedagogy” continues to veil any lucid conceptualization of the term. However, if we bracket the terms and meanings of “cloud” and “pedagogy” we may start to get a sense of how they mediate any notion of semiotic suggesting when combined as “cloud pedagogy.” With this in mind, our focus on how teaching and learning in this twenty-first century Wide Area Network (WAN) occurs is a great reference point for a comprehensible notion of the term cloud pedagogy in secondary and post-secondary educational settings.

As noted in the introduction, the term “cloud computing” is notoriously opaque. While vague and incomprehensible technical terms are often common for the computer sciences, given the daily use of cloud computing by non-experts in the field, a utilitarian understanding of the term is needed. Again, as noted in the introduction, when “cloud computing” is combined with “pedagogy”—another opaque and confusing term in academe—and adopted as “cloud pedagogy”—both experts and non-experts struggle for an enabling conception of the term. Therefore, clarifying the use of the term, at least in this chapter, is important before its application as a framework for examining its connection to the notion of “anywhere anytime anybody.” With this in mind, it is not the intention of this chapter to cover the term “cloud computing” exhaustively or comprehensively, but only to characterize its role as a concept in the sphere of digitally networked classroom learning communities.

For instance, what is most curious about the term “cloud computing” is that a United States government organization, National Institutes of Standards and Technology (NIST), formulates the nature of its meaning rather than academics. In “Cloud Computing Explained,” Jared Carstensen, Bernard Golden, and JPMorgenthal write regarding cloud computing is “there are more definitions” they argue “than there are stars in the sky” (p. 24). Although the term “cloud computing” is unusually dense and linear with no hardened attempt to locate the term, it is not that the term is meaningless. What is most interesting about the term is that it is rooted in power and agency, which tacitly undermines any notion for clarity. That “cloud computing” is situated in the dialectical space of government where obscurity of meaning privileges the expert rather than the non-expert is important, given the use of the term is evaluated and understood only in its practice by the experts. In short, the experts dialogically trap the non-expert as a developmental social and cultural use of the term occurs, since neither the expert nor the non-expert has adequately expressed the nature of the term.

While the inability to locate the rhetorical function of the term in its expressivity privileges the expert, it is problematic for the non-expert. The non-expert is often held accountable to the instrumental meaning of the term only when its application is located within social systems managed by the government and situated in such a way that indicts government bureaucratic agencies or the State as *irrelevant or irreverent* to civil liberties. This is not a modern dilemma between the State and the individual where

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the continuities between liberty and rights are often blurred when a new regime of thought occurs, like the Internet and new technologies, which challenges and transforms notions of existing socio-political and cultural systems. For as Karl Marx warns, “The limits of political emancipation appear at once in the fact that the *state* can liberate itself from constraint without man himself being *really* liberated; that a state may be a *free state* without man himself being a *free man*” (“On the Jewish Question” p. 32). As a result, the interpretation of the term by the non-experts may indeed have insurgent ambitions since the production and expansion of the network society are redefined and recontextualized by the “enduring grip of “difference” in the public imagination, and the genuine social and economic conflicts over what difference comes to mean over time” (Minow p. 201). Without question then, “cloud computing” as a shared telecommunications system *has to become* and *has the potential to become* a dialectical process of communication where indeed “anywhere, anytime, and anybody” is more than just a slick Aristotelian sophistic approach of rhetorical inclusivity. As a concept, then, “cloud computing” may remain rhetorically constituted in the political interests of the experts, since very few non-experts have the specialist knowledge to empty the term of its obscurity. Furthermore, although the term “cloud computing” is not exclusionary in terms of the “anytime anywhere” philosophy that shapes it. The rhetorical deficiencies are that “cloud computing” does not advocate for the transformation of its governing principles for “anybody” both in its theory and in practice.

However, when the term “cloud” is rhetorically tethered to “pedagogy” the dialectical expressivity of the term “cloud pedagogy” is discursively amplified which exposes the weaknesses in its use by the experts as a heuristic device to create hierarchies. To be sure, in its modern rhetorical encasing, pedagogy is a highly social and political term and in a narrow conceptualization, pedagogy can cause more harm than good. Constructivist theorist Jerome Bruner believes that students learn best when current and past knowledge(s) come into active dialogue with one another to construct new frameworks for learning. However, Bruner notes “Pedagogy is never innocent” because he argues, “it is a medium that carries its own message” (p. 63), which is imbued with cultural, political and social meaning and experiences. Bruner’s theory is important since once non-experts employ the term “cloud pedagogy” they use it as a rhetorical tool to dismantle structural inequities. The subversive claim of the term reconstituted by those without expert training, criticize, and release the term from its canonical and rhetorical hold by the experts to explore the dialogical socio-political expressivity of the term. “Cloud pedagogy” is not exclusively situated like the term “cloud computing” within a canonized and formal setting with its meaning and function conceptualized by the experts. For once claimed by marginalized groups and dislodged from its rhetorical hold by the experts, the expressivity of “cloud pedagogy” in the Networked Knowledge Society (NKS), for example, is no longer linear and situated. “Cloud Pedagogy,” then, becomes fluid, open-ended, and imbued with rhetorical possibilities for civic action.

In *On Critical Pedagogy*, radical educator and provocateur Henry Giroux has developed one of the most robust reframings of pedagogy called “critical pedagogy” to give the term a complex and multifaceted meaning tied to social justice in the classroom. For Giroux, the classroom and society should not be viewed as separate ideological entities but as coexisting dialectics. By shedding light on socio-political injuries to civil liberties in educational settings Giroux believes entrenched orthodoxies of power that overwhelmingly support dominant groups and mainstream ideologies in the social order are unmasked and replaced with alternative and egalitarian forms of democratic learning environments. For Giroux, then, if regimes of thought that clearly favor the elites and dominant modes of discourse are “outed” in educational settings, student are less likely to tolerate and fall in lock-step with structural forms of oppression in the social order. Giroux writes:

My view of critical pedagogy developed out of a recognition that education was important not only for gainful employment but also for creating the formative culture of beliefs, practices, and social relations that enable individuals to wield power, learn how to govern, and nurture a democratic society that takes equality, justice, shared values, and freedom seriously. I began to see how pedagogy is central to politics in that it is involved in the construction of critical agents and provides the formative culture that is indispensable to a democratic society. (Giroux, Ch. 1, Kindle location 66, 4519)

Giroux's statement is particularly relevant to digitally networked classroom learning communities, I argue, because it does not advocate as noted earlier, a separation of classroom learning from the socio-political order. Not only is Giroux's philosophy a conceptual model for the term "cloud pedagogy," it also functions as theory to inform the transformative potential in the digitally networked classroom. Difference as an ontological argument in the digitally networked classroom, shapes and is shaped by, the epistemological coding in "cloud pedagogy." That is, student's social and political realities are a synthesis of their ontological arguments and the epistemological coding in the digitally networked classroom learning communities. Therefore, to participate in a "melting pot narrative" where all is the same defiles the emancipatory role that "difference" plays in the digitally networked classroom. This is important since more than ever, social interaction is taking place in the "cloud," which, in turn, influences and or transforms any notion of "pedagogy" in the digitally networked classroom. "Cloud Pedagogy," then, is not so cloudy when one considers that the term is constantly "evolving" to mean something new when it encounters issues related to students' social and political realities that are not *lived in* the digitally networked classroom, but most certainly *lived out in* the digitally networked classroom. That is, a new dimension of reality breaks out through collective discourse, without any consideration to the socio-political hierarchical structure outside the digitally networked classroom.

Therefore, the next section will take into account how knowledge producing in the digitally networked classroom is re-defined through rhetorical examination of the material world with difference being an organizing feature of the collective discourse.

New Knowledge Cultures and the Digitally Networked Classroom

Henry Jenkins' concept of participatory culture is widely known from his influential book *Convergence Culture: Where Old and New Media Collide*. In his introduction to this important work, Jenkins appears just as baffled as everyone about the participatory culture where in the socio-political hierarchical structure privileges provide rank, power, and agency. In a participatory culture, like the digitally networked classroom, however, the space "the cloud" is heterogonous and homogenous—not hierarchical. Jenkins' participatory culture view, now well known, is still worth repeating because he sounds the alarm for proposing any sustainable research paradigms for establishing any core methods for analysis. Jenkins explains:

The term, participatory culture, contrasts with older notions of passive media spectatorship. Rather than talking about media produces and consumers as occupying separate roles, we might now see them as participants who interact with each other according to a new set of rules that none of us fully understands. (p. 3)

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Although Jenkins' definition of participatory culture has erased the notion between the dichotomy of privilege and rank during the construction of knowledge producing, it also muddies his own term by suggesting that not all differences "are created equal" (p. 3). As Jenkins notes, "Corporations—even individuals within corporate media—still exert greater power than any individual consumer or even the aggregate of consumers. And some consumers have greater abilities to participate in this emerging culture than others" (p. 3). The key feature of Jenkins' analysis is that "collective meaning-making" is not specifiable to one disciplinary form of knowledge. Rather, as Jenkins notes participatory culture, like digitally networked classroom, "within popular culture is starting to change the ways religion, education, law, politics, advertising, and even the military operate" (p. 4). Therefore, a master narrative is highly unlikely in a digitally networked classroom since there is no foundationalist center. Rather, "cloud pedagogy" will never become fixated like canonical texts that seem to code human expressivity despite insurgent rhetorical discourse by Othered groups. Jenkins seems to echo this view by stating there is no definite or fixed view on knowledge making. Rather, Jenkins posits, "I explore how collective meaning-making within popular culture is starting to change the ways religion, education, law, politics, advertising, end even the military operate" (p. 4).

Although Jenkins' participatory culture definition was and still is an insurgent idea, Jenkins is quick to note that his ideas are a mish mash of Pierre Levy's notion of "collective intelligence," articulated in his seminal monograph *Collective Intelligence: Mankind's Emerging World in Cyberspace* which gestures towards a break with knowledge that rests on the head of one shoulder. For Levy, in the new knowledge culture everything depends on everybody because, "No one knows everything, everyone knows something, all knowledge resides in humanity" (pp. 13-14). Levy's epistemological break with canonized ways of knowledge producing is a particularly welcome discourse in "cloud pedagogy" since as he notes, "nothing is fixed" (p. 17). This lack of fixity or permanence in Levy's notion of the new knowledge culture does not mean that ideas have no relationship or relevance to the social order. Levy suggests, and I concur, actors shift the discourse in the new knowledge culture or the digitally networked classroom, to reflect their encounter(s) with the social order. Actors reject cleavages to systematized pedagogy validated by the socio-political hierarchical structure, in favor of allegiance to ideas that promote a more inclusive pedagogical structure. In this way, everyone participates in new knowledge cultures like the digitally networked classroom, which dethrones the rubrics of a text-bound pedagogy with a monologist view of knowledge.

It is important to underscore the revolutionary nature of the new knowledge culture in the digitally networked classroom since the idea that the actors define and defend their pedagogy rather than the instructor, reflects the transgressive nature of pedagogy that Giroux and Jenkins endorses, breaks with the rigid system of secondary and post-secondary knowledge making systems. Like Giroux and Jenkins, Levy argues for a similar releasing of totalitarian control of knowledge making to produce more inclusive voices and ways of knowing in what he calls cosmopedic knowledge, which he argues "brings us closer to the lived world" (p. 216). Levy's definition of cosmopedic knowledge is worth citing in full since it is a complex heuristic for political action in a democratic technological space. Levy maintains,

The characteristic principle of the cosmopedia, and that which makes it worthwhile, is its non-separation. For collective intellects, knowledge is a continuum, a large patchwork quilt in which each point can be folded over on any other. The cosmopedia dematerializes the boundaries between different types of knowledge. It dissolves the differences between specializations, as separate zones of power, and leaves behind regions with fluid borders, structured by concepts of variable significance and objects that are

continuously being redefined. In place of the fixed organization of knowledge into discrete and hierarchical disciplines (typical of territorial space)—or the chaotic fragmentation of information and data (typical of the commodity space)—there now exists an unbroken, dynamic topology. (p. 217)

Levy's cosmopedia does not allow any one discourse to take rhetorical hostage of other discourses. This is an important concept and alien to modern secondary and post-secondary educational environments where every few years a new representational college education emerges and renders others irrelevant. For example, the academic disciplines of science, technology, engineering and mathematics or STEM, are the new representational college education. In a cosmopedia setting, however, like the digitally networked classroom, a STEM education would have no more rank and privilege than a liberal arts education. In the cosmopedia, all types of knowledges when they intersect and interact will, by a radical opposition to a hierarchal form of knowledge making will inevitably create new discourses. Levy's cosmopedia theory, then, suggests that new knowledge cultures like the digitally networked classroom are spaces where knowledge making is endlessly being produced and reproducing without any totalitarian control or hierarchy. Thus, the notion of a representative education in the digitally networked classroom is constrained since there is no valorization of one discourse over another. Although Giroux, Jenkins, and Levy make tacit gestures towards difference in new knowledge cultures, some cultural theorists make theirs explicit. This is important since multiple literacies are not produced mechanically—they are produced out of a multicultural society where “difference” is the norm, and properly understood and engaged in a digitally networked classroom, “difference” should not be viewed as undermining but as a transforming feature of pedagogy.

Difference as a Social Movement in the Transgressive Space of the Digitally Networked Classroom

In his influential book, *Networks of Outrage and Hope: Social Movements in the Internet Age*, Manuel Castells argues, “networks of power in various domains of human activity” (p. 7) are important components for expressing insurgent ideas which are “intimately linked [and possess] “extraordinary power” to transform socio-political cultures by uniting diverse ideologies. Like most individual systems of ideology coerced into networks of power despite trying to sustain their own identity, Castells warns, they often “do not merge” (p. 8). Castells is suggesting that “meta-networks of power” (p. 7) within a technological movement do not organically explain, clarify, and confirm, the nature of its teaching—that is, it's pedagogical ethos. Rather, as Castells suggests, networks of power “control the capacity of defining the rules and norms of society through a political system that primarily responds to their interests and values” (p. 8) are derivatives of a social movement. Castells believes that programmers and switchers are the two groups that “holds power in the network society” (p. 8) and to shift this power dynamic, Castells argues is by “switching power” (p. 8).

Castells approach is interesting because while articulating an idea for an expansive view of technological networks, Castells technological manifesto also constitutes the core principles of equality and justice for everyone, which echoes and reflects historical and modern reform movements. Within secondary and post-secondary digitally networked classrooms, Castells' new concept is particularly engaging since it places the transformation of public power in the hands of ordinary citizens. As Castells notes,

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Digital social networks offer the possibility for largely unfettered deliberation and coordination of action. However, this is only one component of the communicative process through which social movements relate to society at large. They also need to build space by creating free communities in the urban space. (p. 9-10)

Castells seems to suggest that like race and gender, class and education are also hindrances to a democratic digital social network. Urban spaces, then, where underprivileged raced and gendered people reside, are also from the underclass and typically undereducated. These are all structural and institutional systems of injustice that most societies try to confront and change typically by a distributive system of justice with goods and services. However, Castells argues for public spaces as a conceptual form of justice as well so that “anywhere anytime,” will include “anybody.” Furthermore, Castells recognizes that even in public spaces that appear to have democratic tendencies or ambitions, the social group disparity still hinders any notion of a technological inclusive framework. For Castells, although the primary goal of an institutional public space was to erase the boundaries where power and hegemony convene, the dominant elite often maintain a successful advantage and thus maintain their privilege and rank. Castells’ social justice position with technology sounds strikingly similar to Jenkins and Levy’s. However, Castells goes a step further with his challenge to democratize technology by criticizing the space it occupies. Institutional public space, Castells argues, are often an obstacle that adds to the bifurcation of learning, which creates power divisions. Castells writes:

Since the institutional public space, the constitutionally designated space for deliberation, is occupied by the interests of the dominant elites and their networks, social movements need to carve out a new public space that is not limited to the Internet, but makes itself visible in the places of social life. This is why they occupy urban space and symbolic buildings. Occupied spaces have played a major role in the history of social change, as well as in contemporary practice. (p.10)

For Castells, “togetherness, symbolic power, and political space” (pp. 10-11) characterize the new public space which is a stark reversal of institutional public space, which he argues, exists mainly for the perpetuation of power controlled by dominant elites. In the new public space, however, justice is the overarching philosophy with the wider concepts of agency and power being part of the paradigm. Castells’ gesture is more than just token inclusivity—it motions towards a radical rethinking of what inclusivity means and how restructuring inclusivity inescapably involves agency and power in the new public space. For Castells,

The critical matter is that this new public space, the networked space between the digital space and the urban space, is a space of autonomous communication. The autonomy of communication is the essence of social movements because it is what allows the movement to be formed, and what enables the movement to relate to society at large beyond the control of the power holders over communication power. (p.11)

Like Castells, cultural theorist bell hooks call for a radical transforming of space, which, for hooks, decenters institutionalized paradigms of agency and power albeit in the classroom. Despite hooks’ generalized view of the classroom, I would like to identify “space” as the digitally networked classroom in both secondary and post-secondary environments. Moreover, I would like to tether Castells’ alternate new public space and hooks’ suggestion of “transformative pedagogy” (p.36) to my earlier representa-

tion of “cloud pedagogy” since pedagogically, both embody a radical departure from current systemized notions of knowledge producing. The result, I argue, is epistemological and ontological: epistemologically, it reorders the origin and nature of who constitutes knowledge and the space (s) where knowledge is constituted. Ontologically, it considers the nature of knowledge and its relations to human agency, particularly when rhetorically situated within totalizing discourses and spaces of power. For hooks, then, in *Teaching to Transgress*, the classroom,

[On] all levels, from elementary to university settings—we must acknowledge that our styles of teaching may need to change. Let’s face it: most of us were taught in classrooms where styles of teachings reflected the notion of a single norm of thought and experience, which we were encouraged to believe was universal. This has been just as true for nonwhite teachers as for white teachers. Most of us learned to teach emulating this model. As a consequence, many teachers are disturbed by the political implications of a multicultural education because they fear losing control in a classroom where there is no one way to approach a subject—only multiple ways and multiple references. (pp. 35-36)

It is interesting to note that both hooks and Castells have political identities. hooks’ socio-cultural theory as a raced and gendered person is representative of her identity, which is central to her engagement with her students in the classroom. Castells as a raced Hispanic person orients his view and encounter with being different across borders of language, culture, and ethnicity within spaces of power. Taking into account hooks and Castells’ story, then, identity politics are important to generating alternative practices of cloud-based pedagogies.

If we are to create a *new public space*, as Castells argues, and “teach in a manner that empowers students” (p.15) as hooks encourages, the notion of “anywhere, anytime, anybody” is not a rhetorical exaggeration of transformative human agency and power. Thus, the concept of “anywhere, anytime, anybody” within a cloud pedagogy that embodies emancipatory possibilities will emerge. My vision of “cloud pedagogy” after all may not appear as alien as previously noted. “Cloud pedagogy,” then, is an evolving process, which we should not surrender to attitudes that pedagogically appear key to shaping our technological destinies in secondary and post-secondary digitally networked classrooms.

CONCLUSION

This chapter began with a discovery of what it means to intertextualize the term “cloud” to “pedagogy” within a secondary and post-secondary digitally networked classroom. However, before this rhetorical tethering, the vision of the term “cloud computing” was examined to understand its epistemological impact on “cloud pedagogy” in the digitally networked classroom. Pedagogy, according to Bruner and Giroux is major driving force of scholasticism in both secondary and post-secondary learning environments. However, for Jenkins and Levy, unless and until these environments are participatory without rank and privilege, any learning is unsuccessful—that is for the masses. Castells and hooks’ emphasis on the empowerment of space is particularly important since they argue space is both creative, transformative, and filled with possibilities for autonomy and transgressive behavior. The emphasis on both technology and its pedagogical impact is especially important given they both aim to realize the possibility of “anywhere, anytime, anybody.” While this utopian ideal may appear lofty and especially naïve in a society that values an Aristotelian logos centered mode of thought. We must remember that radical skepticism in

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the sphere of the digitally networked classroom is not about undermining “cloud pedagogy” but simply to underscore its service to reforming the spatial politics where all voices, despite their complication by identity of difference are in large part the beginning of a less divided society on difference.

REFERENCES

- Anderson, B. (1983). *Imagined Communities. Reflections on the Origin and Spread of Nationalism*. London: Verso.
- Bransford, J. D., & Schwartz, D. L. (1999). Rethinking Transfer: A Simple Proposal with Multiple Implications. *Review of Research in Education*, 24, 61–100.
- Bruner, J. (1996). *The Culture of Education*. Cambridge, MA: Harvard UP.
- Carstensen, J., Golden B., & Morgenthal JP. (2012). Cloud Computing Explained. In *Cloud Computing* (pp. 23-56).
- Castells, M. (2012). *Networks of Outrage and Hope: Social Movements in the Internet Age*. Cambridge, UK: Polity Press.
- Foucault, M. (1982). The Subject and Power. *Critical Inquiry*, 8(4), 777–795. doi:10.1086/448181
- Giroux, H. (2011). *On Critical Pedagogy*. New York, NY: Continuum.
- hooks, b. (1994). *Teaching to Transgress: Education as a Practice of Freedom*. New York: Routledge.
- Jenkins, H. (2012). *Convergence Culture: Where Old and New Media Collide*. New York: New York University Press.
- Kessler, S., & McKenna, W. (1985). *Gender: An Ethnomethodological Approach*. New York: Wiley.
- Kolko, B., Nakamura, L., & Rodman, G. (2000). *Race in Cyberspace*. New York: Routledge.
- Lévy, P. (1997). *Collective Intelligence: Mankind's Emerging World in Cyberspace*. New York: Plenum Trade.
- Marx, K. (1978). On the Jewish Question. In R. Tucker (Ed.), *The Marx-Engels Reader* (pp. 26-46). New York: Norton and Company.
- Minow, M. (1993). From “Justice Engendered”. In P. Smith (Ed.), *The Nature and Process of Law* (pp. 201-218). New York: Oxford University Press.
- Palfrey, J. G., & Urs, G. (2008). *Born digital: Understanding the first generation of digital natives*. New York: Basic.

ADDITIONAL READING

Castells, M. (2009). *The Information Age: Economy, Society, and Culture* (Vol. 1). Massachusetts: Blackwell.

Kress, G. & van T. Leeuwen, T. (2001). *Multimodal Discourse: The Modes and Media of Contemporary Communication*. London: Edward Arnold.

Kress, G. (2003). *Literacy in the New Media Age*. London: Routledge. doi:10.4324/9780203164754

Selfe, C. (1999). *Technology and Literacy in the Twenty-First Century: The Importance of Paying Attention*. Carbondale: Southern Illinois University Press.

Warschauer, M. (2011). *Learning in the Cloud: How (and Why) to Transform Schools with Digital Media*. New York: Teachers College Press.

KEY TERMS AND DEFINITIONS

Anywhere Anytime Anybody: This view is representative of the 24 hour seven days a week available of technology and the transactions that can occur across any geographical, land or techno-spatial borders. In short, the terms imply that everyone has the capability in any context to participate in any community or transaction without any false border.

Cloud: Despite its contested meaning, most often the term refers to a datacenter connected to servers that are connected to the internet. A cloud is either public, private, local or global which is referred to as a Wide Area Network (WAN), or contained within a specific business or organization, Local Area Network (LAN). The pliability in the use of the term no doubt contributes to the terms lack of preferred meaning.

Cloud Computing: Refers to a combination of software and hardware services that are in the “cloud” and available for use through the internet.

Cloud Pedagogy: Describes the knowledge that is specific to teaching about the theories and methods of the cloud.

Pedagogy: Although this is a fluid and open ended term, in its most ideal interpretation, pedagogy is the art, theory, science and practice of teaching.

ENDNOTES

¹ At best, this statement is utopian with the understanding that lived reality will trump any notion of a fairytale utopianism imbued with ‘willful blindness’ where one intentionally refuses to see and listen beyond what is clear and present before them.

² Although Giroux resists the label of being one of the architects of Critical Pedagogy philosophy, he is most definitely one of the original framers of the term along with Paulo Freire.