

Chapter 9

Translingual and Digital Ecologies: A Cloud Pedagogy for Second Language Classrooms

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ABSTRACT

Scholarship in cloud pedagogy has provided intriguing lenses through which researchers enhance pedagogical approaches for digital composition classrooms. However, there is a lack of discussion on how cloud pedagogy could be employed to benefit second language learners of writing. Scholars in both digital and translingual areas of research have touched on conceptualizing their theories through multimodal, collaborative, and ecological perspectives of writing. Therefore, this article looks into the theories and practices of translingualism, and explore how translingual writing can be merged and integrated into the multimodal applications of cloud-based learning. Following and expanding the practices of digital composition, this paper aims to argue for an ontological shift to a translingual view of cloud-based writing and examine how it informs second language learning.

INTRODUCTION

With the growing population of international multilingual learners in English speaking countries, the issue of student mobility has been propelled into the limelight. As classrooms in U.S. colleges are becoming increasingly globalized and multifaceted, researchers and teachers are faced with the challenge on how to better address the needs of diverse populations of second language learners. As second language students move across national and cultural borders, they are no longer confined by fixed definitions and dispositions of the places and cultures from which they come. International students' mobility has also contributed local knowledge to the process of globalization, challenging the structure of extant forms of education (Collins, 2012).

DOI: 10.4018/978-1-5225-1650-7.ch009

Through this lens, writing is no longer bounded by predefined norms and locations. Rather, it encompasses joint networks of local and global encounters. As international students move across their home and target language and cultures, their local knowledge could be utilized for translingual and multimodal practices to co-construct meaning in digital composition. A cloud pedagogy from the angle of translingualism may enhance students' inquiry into language and culture, endorse the collaborative nature of translingual and multimodal writing, and enact both human and non-human resources in the learning process. Cloud pedagogy therefore is closely linked with translingual perspectives that manifested critical resistance to the dominant ideologies and modes of representations through encouraging multilingual students to utilize multiple semiotic resources (Kress, 2010; Van Leeuwen, 2005), or socially-made and every-changing means of meaning making, from their diverse linguistic and cultural backgrounds. The use of diverse semiotic resources leads to students' engagement with writing on an ecological scale. The translingual and digital ecology builds the connection between students' living experience of their local cultures and study-abroad environments.

Scholarships in digital composition and translingualism thus have a shared understanding on the multimodal, collaborative, and ecological aspects of writing. This being said, however, translingual and digital multimodal studies exist mainly as two separate areas of research, despite a few scholarly efforts to conflate and combine these research interests. For instance, Horner and Selfe (2013) stress that "despite their common points of origination, discussions of modality have remained largely separate from discussions of translingualism, to the impoverishment of both" (p. 2). In other words, the two conceptual frameworks in general have not benefited much from a collaborative work. For this reason, there is a need to bridge the theoretical orientations of translingualism and multimodality through exploring the complexity and diversity of translingual cloud-based learning. Following and expanding the practices of digital composition, this chapter aims to argue for an ontological shift to a translingual view of cloud pedagogy and examine how it provides pedagogical implications for second language learning.

The argument of this chapter will be presented in four sections. First, cloud pedagogy in second language writing will be discussed, in terms of three types of learning opportunities enacted through the cloud pedagogy; namely, multimodal affordances, collaborative affordances, and ecological affordances. Secondly, the framework of translingualism will be presented and discussed through the lenses of translingual writing and translingual ecology. The next section will focus on the pedagogical implications of translingualism for cloud-based second language writing. Special attention will be paid to the themes of bridging print and digital modalities, negotiating linguistic and cultural differences, and conflating human and non-human ecologies. Finally, the chapter offers general thought on future research directions for using translingualism and cloud pedagogy in second language writing classrooms.

CLOUD PEDAGOGY IN SECOND LANGUAGE WRITING

Scholarship in cloud technologies has been under the influence of theories in multimodality. Cloud pedagogy incorporates cloud technologies in classroom teaching, including but not limited to Facebook, Google docs, wikis, blogs, Twitter, and mobile apps that have been shown to facilitate second language writing. Current literature demonstrates that cloud technologies have empowered the voice for second language learners, and provided the opportunity for cross-cultural communication (Lantz-Andersson, Vigmo & Bowen, 2013; Lee et al., 2016; Limbu, 2013; Mitchell, 2012; Nelson, 2006). Lying at the heart of such benefits is the use of cloud pedagogy to meet the needs of linguistically and culturally

diverse students. The next section will focus on three types of “affordances,” or resources to be enacted (Canagarajah, 2016) by cloud pedagogy in second language classrooms, namely multimodal affordances, collaborative affordances, and ecological affordances.

Multimodal Affordances

Cloud technologies and multimodal networks have expanded the existing literature on face-to-face communication and language learning by formulating “new social spaces, linguistic and semiotic practices” (Lam, 2006). For instance, multimodality emerges from the New Literacy Studies’ theory of multiliteracies (New London Group, 1996) that redefines literacy as a social practices related to the negotiation of multi-faceted cultural and linguistic differences, and proposes that five modes of meaning can be generated in literacy education, i.e., linguistic, visual, audio, gestural, and spatial ones. Kress (2010) further interprets multimodality as the design to organize these different modes into a multimodal “ensemble,” or the combination of “a plurality of signs in different modes into a particular configuration to form a coherent arrangement” (p. 162). Through examining the combination of various modes, including verbal and non-verbal modes of meaning, the multimodal orientation, including the use of digital technologies, therefore questions the boundaries between languages and other modalities. This definition of multimodality is key to rethinking the ontological basis of language, writing, and technology.

Digital technologies including cloud computing contribute to the development of multimodal literacy. Through encompassing multiple modes of communication, multimodal literacy blurs the boundary established by traditional print-based texts that prioritize linguistic modes. Horner and Selfe (2013) note,

While print texts have always mixed some modalities of expression (words and visual information, for instance), digital environments allow for different kinds/varieties of mixing. Here, I’m thinking of the ways in which print text and video/audio texts can be juxtaposed/combined in a single composing environment. (p.10)

In other words, while print texts intermingle the linguistic and visual modes of meaning making, digital media open the door to a nexus of multiple modalities. Just as Kress (2005) points out, in the print media writing still remains its dominance and privilege over other modes, such as limited use of images and pictures. Therefore, traditional print-based materials create a binary between linguistic modes and other modalities of writing. Digital spaces incorporate and accommodate more varieties of modes, serving to deterritorialize the prevalent use of language in paper-based texts. Research in digital writing and multimodality hence has problematized and challenged the divide between different modalities of meaning making.

Furthermore, multimodal means of communication is also salient in informing second language writing and developing writers’ voice and identities (Lam, 2006; Lotherington & Jenson, 2011; Nelson, 2006; Shin & Cimasko, 2008). Digital and cloud-based studies have been conducted to explore the interconnection between different modes of communication, and the use of multimodalities in second language pedagogy (Lotherington & Jenson, 2011). Looking into the synesthesia of multiple modes in second language writers’ digital storytelling, recent research suggests that multimodal communicative practices could amplify second language learners’ voice and authorship when the learners have acquired a semiotic awareness of multimodal composition (Nelson, 2006). In this sense, the multimodal affordances of cloud pedagogy grant second language writers the freedom to negotiate meanings beyond the limits

of the linguistic modes and their language competency. Through investigating the “interactivity” among the interconnected networks of modes for second language learners of English, researchers have also found that non-linguistic modes of communication are used by second language writers to maintain their national and cultural identities (Shin & Cimasko, 2008). In a nutshell, recent research in digital and cloud pedagogy focuses on conceptualizing different modes of expression as multi-faceted and intermingled, working together as a synthetic amalgamation to facilitate second language learning.

Collaborative Affordances

Cloud pedagogy also allows for interpersonal collaboration and intercultural communication (Lantz-Andersson et al., 2013; Lee et al., 2016; Mitchell, 2012). As the “multimodal affordances” undermine categorizations of language and technologies, the ‘collaborative affordances’ challenge distinctions between individual writers and speakers. Cloud technologies facilitate knowledge sharing and collaborative learning in second language learning. Language learners’ dynamic social media have made it possible to bridge school and home learning through creating spaces for collaborative learning activities. Drawing from the sociocultural model of collaborative learning mediated by social practice, scholars have contended that cloud technologies such as social networking sites formulate platforms through which young people mediate their learning (Lantz-Andersson et al., 2013). Social networking sites such as Facebook create spaces for extended collaborations both in both formal learning contexts and everyday technological use. Mobile learning has also been shown to assist in the development of collaborative skills for second language learners. Through mobile serious games, students have developed collaborative skills in the process of solving problems with their group mates (Lee et al., 2016). In this sense, collaboration is achieved through learners’ interaction with other members of the learning community. Cloud technologies also function as an avenue for intercultural communication. Research has found that second language learners are motivated to acquire cultural knowledge when engaging in Facebook communication (Mitchell, 2012). It has been suggested that part of the reasons why second language students join Facebook is the need for cultural learning. The students who have joined Facebook are able to share their local cultures and learn about American culture through the social networking site. Through this lens, cloud technologies have generated collaborative affordances to stimulate interpersonal and intercultural collaboration.

Additionally, cloud-based learning contributes to the exchange of values and ideas across the spectrum of local and global interactions. Cloud computing “connects people globally with those who have similar as well as dissimilar social, cultural, and political beliefs” (Limbu, 2013, p. 138). In this light, cloud pedagogy thus provides a space for global citizens to exchange local and global perceptions and ideologies. For second language writers, cloud pedagogy creates a network of social encounters. Cloud computing expands the literal meaning of learning space to denote metaphorically a nexus of sociopolitical events and practices. In today’s digital and multimodal world, learning is mediated and actualized through the joint networks of local and global encounters. The collaborative affordances of cloud pedagogy thus are also manifested by transnational collaborations.

Ecological Affordances

Before discussing the ecological affordances of cloud and digital pedagogy, it is necessary to review the ecological modal of writing in composition studies. The ecological modal of writing emerges from the

works of composition scholars such as Marilyn Cooper, Sidney Dobrin, and Christian Weisser. Debunking Flower and Hayes' cognitive view of composition that isolate writers from the social world, Cooper (1986) espouses an ecological model of writing that moves beyond individual writers and their writing contexts. Rather, the ecological model examines "dynamic interlocking systems" of social activities contributing to the writing process. She further maintains that "writing...is seen to be both constituted by and constitutive of...ever-changing systems, systems through which people relate as complete, social beings..." (Cooper, 1986, p. 373). In this sense, the writing process itself is emergent and fluid, undergoing changes relative to the transformations of ecological and social systems in which composition takes place. Drawing from Cooper's (1986, 2011) ecological model of writing, Dobrin and Weisser (2002) illustrate a dialectic relation between discourse and environment. Compositionists make inquiries into the process in which discourses shape places and environments just as nature and environments influence discourses (Dobrin & Weisser, 2002, p. 573). In other words, writing constitutes part of the materiality in the same way that material environment shapes the construction of linguistic meanings. Both discourses and materiality play an agentive role in responding to and acting upon each other. This ecological view of composition essentially sheds light on a reciprocity between human beings and ecological environments.

Challenging human centrality and dominance has also become salient in recent works of ecological and digital writing. Guattari's (1989) "The Three Ecologies" has been cited by scholars to displace human intentionality in human and non-human ecological systems. This theory maintains that there are three registers of ecologies, namely social ecology, mental ecology, and environmental ecology. The theory thus postulates an "ecosophy" that delves into the interrelations between the natural environment, social relations, and human subjectivity. Building on Guattari's "The Three Ecologies," Dobrin (2011) maintains that his ecological theory complicates the notion of subjectivity, thereby serving as a critique of the "learner-as-designer" metaphor salient in research on multimodality. Dobrin holds that the dichotomy between nature and culture oversimplifies ecological relationships. Instead, with the emergence of computer-aided subjectivity and the new media, it is time to disrupt and extend the current knowledge of writing system by way of examining the interconnection between the three registers of ecology. Morey (2012) also draws on Felix Guattari's philosophy of ecosophy to illustrate that the boundary between human and non-human agents is porous. Citing Guattari, Morey seeks to build the connection between Guattari's ecosophy and digital ecologies. He has used the metaphor "digital ecologies" to denote the inseparability of natural and digital worlds. For instance, Morey (2012) argues that composition "is also digital and has digital effects where it interacts with nature; the two create an ecological relationship" (p. 114). This view of composition therefore delves into the complex ecologies that evoke both partial and holistic, both heterogeneous and homogeneous notions of natural and social environments, challenging the division between human and non-human systems in the digital multimodal ecologies of learning. Similarly, DeVoss, McKee, and Selfe (2009) delve into the technological ecology of writing. It has been pointed out that a complex ecology emerges out of the interaction between computerized writing artifacts and human beings utilizing and supporting the technologies (DeVoss, McKee, & Selfe, 2009). The researchers conceptualize digital composition as similar to ecological systems in which human beings and the material technologies formulate a network of interaction. In this sense, the sustainable system of composition classrooms and programs is constructed and maintained by both human and technological agents. The ecological affordances of cloud pedagogy, therefore, recognize the interactions between human and non-human subjects in second language writing.

TRANSLINGUALISM

Given that digital technologies could provide multiple affordances for writing learners, digital and multimodal composition has not been explored exhaustively to benefit second language writers. The framework of translingualism that addresses the needs of linguistically and culturally diverse groups of students, in this sense, may infuse new vigor to the application of digital writing in second language classrooms. Recent years have witnessed an interest in translingualism among composition scholars (Domahue, 2016; Gonzales, 2015; Kiernan, 2015; McCorkle, Halasek, Clinnin, & Selfe, 2016; Shipka, 2016). However, although being a novel trend in language learning, translingual practice is faced with pedagogical challenges to meet the needs of second language students. One critique on translingualism lies in its limited capacity to inform writing pedagogy and classroom instruction. For instance, translingual writing “has not widely taken up the task of helping L2 [second language] writers increase their proficiency” (Atkinson et al., 2015, p. 384). Translingualism has also been under the criticism of lacking viable pedagogical applications for improving multilingual learners’ proficiency in English (Mastuda, 2014). This section contends that through bridging the gap between translingual research and digital composition, translingual scholars may be able to address the scholarly debate on the pedagogical application of translingual practices in second language teaching and learning.

Translingual Writing

Translingualism has its root in the concept of the “the contact zone.” In “Arts of the Contact Zone”, Pratt (1991) coins the term “contact zones” to denote the social spaces in which dominant and subordinate cultural concepts and beliefs are in confrontation with and conflict against each other. The term demythifies the illusion of “a unified and homogenous social world” through the juxtaposition of difference with authority and heterogeneity with ubiquity, which is then exemplified by indigenous rewriting of Christian history, as well as by students’ resistance against dominant institutions (Pratt, 1991). This contact, therefore, brings about ideological shifts, whereby diverse power groups question and challenge the legitimacy of the norms established by the authoritarian communities.

Drawing from Pratt’s concept of the “contact zone,” translingual theories promote “an engagement with diverse languages and cultures,” which is manifested in the mixing of language resources (Canagarajah, 2013a; 2013b; 2014a). Mixed forms of academic learning have been equated with a “contact zone,” which creates the space for negotiation of meaning for translingual performance. The boundaries between linguistic and cultural modes have also been problematized. Rather, language has been redefined as “a demarcation of a far more complex ecology of practices” (Horner & Selfe, 2013, p. 9). Subsuming languages into clearly defined categories oversimplifies the complexity of the relations between different languages and cultures.

Debunking the monolingual and nativist assumptions of second language learners, translingualism launches a scholarly debate on standardized English. Standardized English has been questioned for “the immutable set of rigid rules implied by designating it as “standard” (Bizzell, 2014a, p. 134). In contrast, the concept of global Englishes has expanded geographic regions in which English is conventionally and historically has been adopted as the native form of language (Bizzell, 2014a). The local has also been conceptualized as a space of “enactment” and “recontextualization,” (Pennycook 2007, p. 111), or a form of critical resistance to homogeneity and assimilation, blurring the boundaries between English as a local and global language. Creating a space for negotiation among different varieties of English

challenges the pre-established cultural and political categories in support of a view of language that positions English as a living and changing language.

Thus, translingual writing illuminates a new avenue for understanding language differences through a focus on learner agency and intercommunity negotiation. Debunking the monolingual and “English only” view of composition, scholars espouse the translingual paradigm to consider the power relations in writing classrooms and empower multilingual and second language writers’ agency of learning (Canagarajah, 2013a; Horner & Selfe, 2013; Horner et al., 2011; Lu & Horner, 2012). For instance, student writers could draw on their repertoires of linguistic and cultural resources to bring diversity into the standardized forms of language and culture (Horner, Lu, Royster & Trimbur, 2011; Domahue, 2016). In a similar vein, translingual practice has been posited as “the work of creative and active social agents” who engage with the different and sometimes conflictual systems of language and thought (Canagarajah, 2013a, p. 32). In this sense, the translingual paradigm has prioritized writers’ subjectivity and agency in language practices. Translingualism also highlights inter-community negotiations (Canagarajah, 2013b, 2016). It is through negotiation of ideas and identities that language learners generate new knowledge and formulate group solidarity. Negotiating “diverse languages, symbol systems, and modalities of communication,” (Canagarajah, 2013b, p. 41), translingual learning thus debunks the notion that students from a learning community should act according to pre-established norms of communication, especially the norms under the disguise of monolingualism. Instead, through inter-community negotiations and collaborations, second language students generate new norms and achieve communicative goals with their group members.

Translingual Ecology

Scholars of translingual research have envisioned writing as embedded in the interactions between multifaceted systems and ecologies of learning. This can be exemplified by the growth of research interests in language and ecologies. Canagarajah (2013b) conceptualizes translingual practices through the lens of ecological writing. According to him, ecology and environment provide a wealth of affordances that learners could draw on to co-construct meaning in dialogues. He further contextualizes text as a not only a constituent of local ecologies but also as affordance of diverse resources for meaning making, generated through “the interplay of participants, objects, spatiotemporal contexts, and the ecology of semiotic resources, not words in isolation” (Canagarajah, 2013b, p. 62). For this reason, discourse and environment are not separate systems of learning, but overlap and interact with each other. Horner and Selfe (2013) also acknowledge that language should be understood as demarcating a “complex ecology of practices” (p. 9). That is to say, the interplay between language and other semiotic modes generates an ecological network encompassing multiple forms of practices.

Additionally, scholarships in translingualism also orient toward viewing composition as a fluid and dynamic process, one of the key notions in ecological composition. Translingual studies have adopted “an expansive, holistic, and plural orientation” to espouse the ecological orientation to English teaching and learning that interprets writing as embedded in changing ecological and multimodal environments (Canagarajah, 2014a; 2014b). Due to the unpredictability of class and the change of students’ predilection, teachers are supposed to reorient pedagogical activities through negotiations with students in the classroom (Canagarajah, 2014b). The fluidity and changeability of learning environment is also manifested in the envisioning of classroom ecology as permeated with semiotic resources that students can transform into affordances, of which teachers may not be consciously aware (Canagarajah, 2016).

Through this lens, translingual scholarship embraces the unpredictability of the ecology through which the production of texts along with semiotic resources occurs in tacit and subtle forms.

Albeit that translingual scholars have touched on the social and fluid aspects of ecological writing, they remain centralizing human beings as agents taking active control of the writing process, a concept that has been problematized by recent studies in translingualism and materiality. Recent compositionists inaugurate a reworking of translingual theories in a material and ecological direction. Jordan (2015) taps into the ontological and ethical questions underlying the ideology of translingualism. Through questioning the overemphasis on human agency and subjectivity, he situated translingual practices into the framework of the neo-materialistic and ecological philosophies. That is to say, translingualism should take into consideration the complex ecologies of teaching and learning that shape the interplay between human and non-human agents. Additionally, the ecological model of learning expands the translingual framework of language practice. Performativity moves writing from language representation to discursive practice, focusing on the “production of the matter of bodies” (Barad, 2003, p. 807-808). The ecological model is therefore linked with translingual learning in that translingual theories are rooted in language learning as practice-based (See Canagarajah, 2014b). At the same time, however, the ecological concept of practice broadens the “practice” nature of translingualism to underscore not only practices of human subjects, but also non-human bodies and matters. This sense of practice is linked with the notion of materiality. Micciche (2014) writes that collaborations between human and non-human agents should be construed as “partnerships that involve the merging of various forms of matter” (p. 498). The key concept, therefore, lies not so much in who should be dominating the classroom ecology manifested in both teacher-centered and student-centered orientations, as in how human beings perform translingual practices through interacting with non-human materials. Drawing from Micciche’s notion of materiality, Shipka (2016) notes that the collaboration between the translingual and multimodal (including digital) orientations also is manifested in the intermingling of human and non-human resources. This notion of materiality correlates with the ecological affordances of cloud pedagogy, which will be further elaborated in the next section.

INCORPORATING TRANSLINGUALISM INTO CLOUD PEDAGOGY

What is left to be explored, then, is how the ontological interpretation of translingualism could benefit cloud pedagogy. Translingualism has provided intriguing lenses through which researchers enhance pedagogical approaches for teaching second language students in U.S. academic writing classrooms. Scholars in both digital and translingual areas of research have touched on conceptualizing their theories through a multimodal, collaborative, and ecological perspective of writing (Canagarajah 2014a, 2016; Dobrin et al., 2012). Through tracing the similarities between translingual and digital writing, this section explores the theoretical and pedagogical implications incorporating translingualism into digital composition. For this reason, this section also seeks to examine the ontology of translingualism that allows multilingual learners to utilize their diversified repertoires of linguistic and cultural knowledge. Furthermore, the section proposes addressing the research gap of digital and translingual literacy practices by examining the theoretical framework of translingualism and the function of translingualism in facilitating cloud pedagogy. This being said, however, there is a lack of empirical research looking into the collaboration between translingualism and cloud pedagogy, which awaits exploration by future researchers.

Bridging Print and Digital Modalities

Translingual scholars have tapped into the dialectical relations between different varieties of languages and modalities. The distinction between an array of modes and languages misinterprets disparate languages as having specific effects and oversimplifies the complexity of human experience associated with different senses (Horner and Selfe, 2013). In other words, the compartment of single languages and modalities does not accurately reflect human experience related to various sensations. Rather, the nomenclature of “translingualism” attests to the ontological move blending multiple modalities of meaning. For instance, the prefix of “trans” in translingualism denotes the tendency to incorporate other forms of semiotic resources beyond language, including color, image, and symbols (Canagarajah, 2013b, p. 41). Thus, scholars in translingual research challenge the notion to categorize and isolate disparate modes of communication, including linguistic modes and non-linguistic resources. From this perspective, translingualism not only includes the mixing and mingling of different languages but also suggests the crossing and bridging of semiotic boundaries. This translingual orientation thus bears a resemblance to digital and multimodal research in that both of the two trends aim to question the boundaries between languages and modalities. Scholars tend to recognize the complexity and diversity of translingual and digital spaces.

The mixing of semiotic resources can be seen in recent compositional research. Gonzales (2015) has conducted a rhetoric genre study on the use of translingualism in multimodal composing practices of second language writers. Gonzales (2015) utilizes multimodal and translingual theories to conduct a focus-group analysis on linguistically diverse students at two large public state universities. The researcher explores how the students’ approaches and conceptions of writing shift when composing print and multilingual genres. The researcher looks into both verbal and gestural means of communication to gain knowledge about the students’ perception of how they approach different genres of writing. Through analyzing the video data coded through ELAN, the researcher finds that students’ use of gestures, “in conjunction with their verbal discussions, suggest a limited, linear perception of conventional print genres” (p. 12). Different from the discussions on print-based texts, during the focus group discussion of digital projects, the majority of second language students have utilized words, wavy gestures, and other semiotic resources to convey concepts that they may have found difficult in expressing through words alone. In this sense, the study recommends a translingual approach in digital composition that may potentially benefit second language writers.

Constituting part of the multimodal research, cloud computing provides various modalities and resources for second language students. However, there is a shortage of studies examining how cloud technologies could potentially bridge print and digital modalities in language learning. In this light, compositionists can look into various forms of modalities being adopted in cloud-based writing classrooms. For instance, writing instructors can ask students to describe their use of technological tools such as Google docs and the influence of the technologies on their digital learning. By way of inviting students to describe their experience, the instructor as well as the students can explore the multiplicity of cloud-based practices enacted through a heterogeneity of modalities including but not limited to words, pictures, figures, PowerPoints, and videos that could be shared via cloud technologies. Discussions can also focus on how digital tools such as social networking websites change student writers’ engagement with classroom activities. Key questions to consider include the following: how will multilingual learners benefit from the interactions between multiple modes of communication? How will composition teachers assess students’ writing cross multiple linguistic and symbolic modalities? In this sense, future

research needs to look into how cloud-based learning takes place among the interactions of translingual individuals and the impact of these interactions on the writers' digital activities.

Negotiating Linguistic and Cultural Differences

Translingualism confirms and expands the notions of interpersonal collaboration and cross-cultural communication in cloud pedagogy. Cloud technologies have provided a platform for collaboration. The framework of translingualism enriches the collaborative affordances of digital tools by examining the needs of linguistically and culturally diverse populations of students. From the translingual point of view, linguistic and cultural norms are not pre-established, but rather negotiated through the interaction and collaboration of language learners.

Culturally-based collaborative activities have been drawn upon to facilitate second language writers' translingual and multimodal learning. Kiernan (2015) explores the role of cultural sharing through multimodal and translingual classroom practices, specifically food culture, in developing critical thinking and writing skills for college second language learners. The study also aims to use culturally-based pedagogical approaches for bridging translingual and multimodal ideologies of composition. A discourse analysis is conducted on second language learners in a preparatory writing class who are asked to complete a print-based writing assignment on food culture and a digital-based video project on the same topic. The findings suggest that the culturally-based activities have contributed to the students' intellectual growth and promoted translingual and multimodal ideologies within pedagogies.

Translingual collaboration can also be actualized in online instructional settings. McCorkle et al. (2016) have discussed the use of a World English approach in the context of a Massive Open Online Course (MOOC) that encourages students to negotiate language differences. MOOC has been configured as an instructional tool to facilitate language learning for second language writers. Highlighting peer feedback as exchange of ideas, cloud computing thus moves away from the power imbalances between native speakers and second language students and the nativist assumptions of the culturally diverse groups of learners. Instead, a World English approach that foregrounds cross-cultural negotiation, in tandem with the translingual ideology, has been utilized to disrupt monolingual norms and standardized English and encourage multilingual and translingual students' participation in the online instructional context.

While these studies discussed the use of a translingual paradigm highlighting cross-cultural negotiation in general, translingualism has not been adopted widely in cloud-based writing research. In composition classrooms, this recognition of negotiation can be used for promoting cloud pedagogy. Writing teachers could invite students to have collaborative writing and peer feedback activities that empower second language students' interpersonal and inter-community interactions. Culturally-based activities can also be incorporated into the cloud-based learning. Despite current research's focus on the benign aspects of negotiating languages and meanings in online practices of writing, there exist potential challenges that second language learners may face. For instance, students with pre-established monolingual ideologies may be less motivated to negotiate meanings with their peers. Students with limited exposure to digital tools may also find it challenging to communicate meaningfully and effectively through cloud-based platforms. To explore these issues, composition researchers can empirically examine how teachers, learners, and technologies interact with each other in cloud-based practices, and how to deal with learners' struggle with technological devices. To further explore the issue, future research is needed to investigate in a greater depth into the pedagogical gap between cloud technologies and translingualism.

Conflating Human and Non-Human Ecologies

The pedagogical implications is also less explored regarding a synthesis of translingual and digital ecologies in cloud-based practices. Scholars of digital and translingual research have envisioned writing as embedded in the interactions between multifaceted systems and ecologies of learning. In this light, recent translingual scholarship correlates with digital and multimodal research in terms of their shared understanding that writers are situated within an ecological learning environment permeated with a multitude of semiotic resources and modalities. Digital and translingual ecology thus encompasses the interactions of both human and non-human subjects.

Conflating human and non-human ecologies has been a focus in recent compositional works. Fraiberg (2010) elaborates on the need to expand the existing frameworks in multimodal and multilingual composition, and to bridge the boundaries between human beings and non-human objects. Using a high-tech company in Israel as an example, the researcher illustrates the mixing of Hebrew and English on the company's website. The article hence recommends incorporating multimodal and multilingual texts from everyday language practices into composition classes and writing research. It has also been pointed out that non-human materials provide an analytical tool for literacy practices. Through examining the company's websites, blogs, emails and other ecologies, the researcher has garnered useful cultural information about the company's rhetorical practices. As Fraiberg (2010) writes, "human actors are no longer in dialogue only with one another, but also with other texts and tools" (p. 107). From this perspective, composition teachers and students also engage with the material tools including textbooks, assignments, and websites. It is thus significant to investigate the translingual and technological aspects of the writing ecology.

This being said, however, it is worth noting that the ecological move of translingualism does not run contrary to the "learner-centeredness" in translingual and cloud-based pedagogy. Rather, the ecological theorization of translingualism moves beyond "learner-centered" teaching to incorporate both human and non-human agency. In other words, both human beings and material objects not only constitute part of the composing practices but also serve as agents to take active control of the writing processes. This ontological move sheds light on the classroom application of the translingual digital ecologies.

The pedagogical implication for compositionists is the recognition of material objects, including digital and print-based learning tools, as agents that facilitate translingual and digital learning for second language writers. Composition teachers could ask students to reflect on the material tools they use to construct or interpret translingual texts. Students can also discuss how they engage with cloud technologies through multimodal projects such as designing a wiki page to illustrate their writing or collaborating on Google Doc to write an essay. Classroom activities may focus on various forms of cultural artifacts such as food, clothing, and rites, and examine how these material artifacts of language and culture provides the opportunity for cross-cultural negotiation. Additionally, future composition scholars could look into the interactions between different human and non-human subjects in digital and translingual ecologies, with an eye on the complex system of learning when students interact with digital and material artifacts to negotiate meanings.

CONCLUSION AND FUTURE DIRECTION

This chapter has elaborated on using translingualism to inform cloud pedagogy. The review of literatures focuses on three aspects of translingual and multimodal writing that are most germane to enhancing composition pedagogy for second language learners, namely bridging print and digital modalities, negotiating linguistic and cultural differences, and conflating human and non-human ecologies. These three aspects of digital writing shed light on the agentive role played by both print and digital modes of writing, both native speakers and second language learners, and both human and non-human agents in cloud-based composing practices. Albeit that recent compositionists have theorized translingualism as conducive for digital learning, there are few empirical studies examining the use of translingualism to benefit cloud pedagogy and digital composition. In this light, this article has argued for more studies to be conducted to explore the pedagogical implications of translingualism in composition classes.

The theoretical framework of translingualism aligns with the digital and multimodal research agenda to provide a cloud pedagogy for second language students. Translingualism aligns with digital and multimodal scholarship in switching the focus away from monomodality, monolingualism, and human subjectivity. To this end, scholars in translingual and digital writing have problematized and complicated the fixed, clear, and static definitions of languages and modalities. These concepts may all be explored in interesting ways through the lens of multilingual and second language students' life and study in the United States. Future researchers need to look further into how to design pedagogical activities that embody the values of a cloud-based writing ecology reflecting both translingual and digital practices.

REFERENCES

- Atkinson, D. et al. (2015). Clarifying the relationship between L2 writing and translingual writing: An open letter to writing studies editors and organization leaders. *College English*, 77, 383–386.
- Barad, K. (2003). Posthumanist performativity: Toward an understanding of how matters comes to matter. *Signs (Chicago, Ill.)*, 28(3), 801–831. doi:10.1086/345321
- Bizzell, P. (2014a). Toward “transcultural” literacy. In B. Horner & K. Kopelson (Eds.), *Reworking English in rhetoric and composition: Global interrogations, local interventions* (pp. 131–149). Carbondale, IL: Southern Illinois University Press.
- Bizzell, P. (2014b). We want to know who our students are. *PMLA*, 129(3), 442–447. doi:10.1632/pmla.2014.129.3.442
- Canagarajah, S. (2013a). English as translingual. In *Translingual practice: Global Englishes and cosmopolitan relations* (pp. 56–75). London: Routledge.
- Canagarajah, S. (2013b). Negotiating translingual literacy: An enactment. *Research in the Teaching of English*, 48(1), 40–67.
- Canagarajah, S. (2014a). In search of a new paradigm for teaching English as an international language. *TESOL Journal*, 5(4), 767–785. doi:10.1002/tesj.166

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- Canagarajah, S. (2014b). *Clarifying the relationship between translingual practice and L2 writing*. Paper presented at The 2014 Maryland Conference on Academic and Professional Writing, University of Maryland, MD. Retrieved September 4, 2016, from https://www.academia.edu/16051926/Clarifying_the_Relationship_between_Translingual_Practice_and_L2_Writing
- Canagarajah, S. (2016). Translingual writing and teacher development in composition. *College English*, 78(3), 264–272.
- Collins, F. L. (2012). Researching mobility and emplacement: Examining transience and transnationality in international student lives. *Area*, 44(3), 296–304. doi:10.1111/j.1475-4762.2012.01112.x
- Cooper, M. (1986). The ecology of writing. *College English*, 48(4), 364–375. doi:10.2307/377264
- Cooper, M. (2011). Rhetorical agency as emergent and enacted. *CCC*, 62(3), 420–449.
- DeVoss, D., McKee, H., & Selfe, R. (Eds.). (2009). *Technological ecologies and sustainability* [PDF e-book]. Retrieved September 4, 2016, from http://ccdigitalpress.org/tes/TES_COMBINED.pdf
- Dobrin, S. I. (2011). *Postcomposition*. Southern Illinois University Press.
- Dobrin, S. I., & Weisser, C. R. (2002). Breaking ground in ecocomposition: Exploring relationships between discourse and environment. *College English*, 64(5), 566–589. doi:10.2307/3250754
- Domahue, C. (2016). The “trans” in transnational-translingual: Rhetorical and linguistic flexibility as new norms. *Composition Studies*, 44(1), 147–150.
- Fraiberg, S. (2010). Composition 2.0: Toward a multilingual and multimodal framework. *College Composition and Communication*, 62(1), 100–126.
- Gonzales, L. (2015). Multimodality, translingualism, and rhetorical genre studies. *Composition. Forum*, 31.
- Guattari, F. (1989). The three ecologies. *New Formations*, 8, 131–147.
- Horner, B., Lu, M., Royster, J. J., & Trimbur, J. (2011). OPINION: Language difference in writing: Toward a translingual approach. *College English*, 73(3), 303–321.
- Horner, B., & Selfe, C. L. (2013). *Translinguality/trasmodality relations: Snapshots from a dialogue*. Unpublished working paper, University of Louisville. Retrieved September 4, 2016, from <http://louisville.edu/workingpapers/doc/self-horner-working-papers-version>
- Jordan, J. (2015). Material translingual ecologies. *College English*, 77(4), 364–382.
- Kiernan, J. E. (2015). Multimodal and translingual composing practices: A culturally based needs assessment of second language learners. *Journal of Global Literacies, Technologies, and Emerging Pedagogies*, 3(1), 302–332.
- Kress, G. (2005). Gains and losses: New forms of texts, knowledge, and learning. *Computers and Composition*, 22(1), 5–22. doi:10.1016/j.compcom.2004.12.004
- Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. London: Routledge.

- Lam, E. (2006). Re-Envisioning language, literacy, and the immigrant subject in new mediascapes. *Pedagogies*, 1(3), 171–195. doi:10.1207/s15544818ped0103_2
- Lantz-Andersson, A., Vkgimo, S., & Bowen, R. (2013). Crossing boundaries in Facebook: Students' framing of language learning activities as extended spaces. *International Journal of Computer-Supported Collaborative Learning*, 8(3), 293–312. doi:10.1007/s11412-013-9177-0
- Lee, H., Parsons, D., Kwon, G., Kim, J., Petrova, K., Jeong, E., & Ryu, H. (2016). Cooperation begins: Encouraging critical thinking skills through cooperative reciprocity using a mobile learning game. *Computers & Education*, 97, 97–155. doi:10.1016/j.compedu.2016.03.006
- Limbu, M. (2013). Digital and global literacies in networked communities: Epistemic shifts and communication practices in the cloud era. In G. Verhulsdonck & M. Limbu (Eds.), *Digital rhetoric and global literacies: Communication modes and digital practices in the networked world* (pp. 131–153). Hershey, PA: IGI Global.
- Lotherington, H., & Jenson, J. (2011). Teaching multimodal and digital literacy in L2 settings: New literacies, new basics, new pedagogies. *Annual Review of Applied Linguistics*, 31, 226–246. doi:10.1017/S0267190511000110
- Lu, M., & Horner, B. (2012). *Translingual literacy and matters of agency*. Unpublished working paper, University of Louisville. Retrieved September 4, 2016, from [http://writing.uncc.edu/sites/writing.uncc.edu/files/media/docs/Min-Zhan_Lu_and_Bruce_Horner_Translingual_Literacy_and_Matters_of_Agency\(1\).pdf](http://writing.uncc.edu/sites/writing.uncc.edu/files/media/docs/Min-Zhan_Lu_and_Bruce_Horner_Translingual_Literacy_and_Matters_of_Agency(1).pdf)
- Matsuda, P. K. (2014). The lure of translingual writing. *PMLA*, 129(3), 478–483. doi:10.1632/pmla.2014.129.3.478
- McKorkle, B., Halasek, K., Clinnin, K., & Selfie, C. L. (2016). Negotiating world Englishes in a writing-based MOOC. *Composition Studies*, 44(1), 53–71.
- Micciche, L. R. (2014). Writing material. *College English*, 76(6), 488–505.
- Mitchell, K. (2012). A social tool: Why and how ESOL students use Facebook. *CALICO Journal*, 29(3), 471–493. doi:10.11139/cj.29.3.471-493
- Morey, S. (2012). Digital ecologies. In S. L. Dobrin (Ed.), *Ecology, writing theory, and new media* (pp. 106–121). London: Routledge.
- Nelson, M. E. (2006). Mode, meaning, and synesthesia in multimedia L2 writing. *Language Learning & Technology*, 10(2), 56–76.
- New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66(1), 60–92. doi:10.17763/haer.66.1.17370n67v22j160u
- Pennycook, A. (2007). Language, localization, and the real: Hip-hop and the global spread of authenticity. *Journal of Language, Identity, and Education*, 6(2), 101–115. doi:10.1080/15348450701341246
- Pratt, M. L. (1991). Arts of the contact zone. *Profession*, 91, 33–40.

Selfe, C. (2009). The movement of air, the breath of meaning: Aurality and multimodal composing. *CCC*, 60(4), 616–663.

Shin, D., & Cimasko, T. (2008). Multimodal composition in a college ESL class: New tools, traditional norms. *Computers and Composition*, 25(4), 376–395. doi:10.1016/j.compcom.2008.07.001

Shipka, J. (2016). Transmodality in/and processes of making: Changing dispositions and practice. *College English*, 78(3), 250–257.

Van Leeuwen, T. (2005). *Introducing social semiotics*. London: Routledge.

KEY TERMS AND DEFINITIONS

Cloud Pedagogy: The use of cloud technologies in classroom teaching, including but not limited to Facebook, Google docs, wikis, blogs, Twitter, and mobile apps.

Contact Zone: Social space in which dominant and subordinate cultural concepts and beliefs were in confrontation with and conflict against each other.

Multimodal Composition: Writing projects that incorporate various modes of communication, including but not limited to the use of texts, images, sounds, videos, and digital tools.

Second Language Writers: Writers who write in a language that is not their first language or mother tongue.

Semiotic Resources: Social, cultural, and material resources that have the potential of meaning-making.

Translingualism: The language practice that repudiates the monolingual ideology in support of code-meshing and language mixing across social and cultural contexts.

Writing Ecology: The notion of writing as emergent and fluid, undergoing changes relative to the transformations of ecological and social systems in which writing takes place.