

Updating globalization:
An integrative review of technical and professional communication scholarship
and geosemiotic analysis of a global u-eco-city

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Abstract

Few studies in technical and professional communication (TPC) have explored globalization with directness and depth—surprising, since globalization is reported to impact TPC research, teaching, and ethics. Starke-Meyerring's (2005) global literacies model has been a rare exception. Yet, global literacies, though impressive for its time, has shown two weaknesses, selective review methods and a lack of empirical support. This dissertation therefore addresses those two weaknesses, which are endemic in TPC writ large, through a two-part project. Part I synthesizes integrative review with grounded theory, analyzing how TPC has instantiated globalization in the field's academic journals. The analysis generates a conceptual framework to guide further empirical inquiry. Actuating the conceptual framework, Part II describes a geosemiotic analysis of a global city's symbolic characterization. Taken together, the dissertation's two parts update global literacies, suggesting implications for TPC research, teaching, and ethics in the urban twenty-first century.

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Chapter I

Introduction

Globalization, variously understood, has emerged as a master concept of the twenty-first century. Its effects are reported from finance to sexuality, higher learning to migration, organized crime to diabetes. Given that remit, scholars have hotly contested globalization's definitions and histories, as well as its normative dimensions. Precise answers remain elusive, yet a common sentiment across academic fields is that "we are living through a transformation that, though partial, is epochal" (Sassen, 2007, p. ix).

Globalization has proven of particular significance in technical and professional communication (TPC), and one reason is research. Across sub-disciplines, TPC scholars have investigated practices linked with globalization, such as distributed work, technology development, and intercultural communication. Hundreds of journal articles have referenced globalization to justify inquiry. What with that sustained interest, two of the newest TPC journals—*Connexions* and *Rhetoric, Professional Communication, and Globalization*—have been dedicated to global studies. To better address globalization, scholars in these journals have stressed further methodological innovation and importation (e.g., Brumberger, 2014; Byrne, 2013; Getto, 2014; Jones, 2014; Madson, 2014; Mukavetz, 2014; Price, Walton, & Petersen, 2014; Thatcher, 2010).

Another reason for globalization's significance in TPC is teaching, which responds to work. TPC professionals often work for organizations thought to drive globalization, such as transnational corporations, software manufacturers, and

government organs (Lanier, 2009). Such workplaces frequently are distributed across borders, where obstacles to global interaction—“friction points” (St. Amant & Rife, 2010) —may arise. Common friction points include varying hardware designs, cultural uses, genre expectations, and legal infrastructure (St. Amant, 2013). Relatedly, many TPC professionals must engage stakeholders from diverse backgrounds, despite receiving little or no training in global communication (Brewer, 2016). These workplace exigencies have coincided with increasing ethnic, cultural, and linguistic diversity among TPC students in higher education (Day & Frye, 2011). However, across settings, TPC instructors have struggled to make their teaching effective (Cleary, 2011; Matsuda & Matsuda, 2011; Matveeva, 2008; Roberts & Tuleja, 2008; Yu, 2011).

Another reason still for globalization’s significance in TPC is ethics. On the one hand, globalization has been associated with cultural enrichment and poverty alleviation, for instance through sustainable urbanization (see United Nations, 2014). On the other hand, globalization is thought to have eroded national sovereignty, threatened languages and cultural traditions, spread disease, polluted natural resources, facilitated human trafficking, escalated terror, and enabled what Mousavizadeh (2015) termed the “weaponization of everything.” These ethical tensions matter because TPC “participates in and seeks to benefit from globalization” (Savage & Mattson, 2010, p. 5). As a result, we share “responsibilities for globalization’s effects, whether good or ill” (p. 5), creating a possible exigency for social justice (Agboka, 2013a).

It is surprising, then, that few TPC studies have investigated globalization with directness and depth. Admitting that “there is much work to do on this topic” (p. 14),

even Thatcher (2010) skirted globalization in his discussion of “global inquiry.” But a foundational exception has been Starke-Meyerring (2005), who explored how globalization might influence TPC programs. More to the point, Starke-Meyerring proposed a “global literacies” model that derived from four themes in globalization scholarship writ large:

1. The “facilitation of globalization through digital networks” (pp. 475-476). With the internet, communication has become more collaborative around the world, allowing TPC professionals to work more participatively.
2. The “resultant pluralized identities and blurred boundaries” (pp. 476-481). Because of global human movement, TPC students may affiliate with a hybridity of cultural groups, enacting what Benhabib called “flexible citizenship.” TPC’s “particularist” and “universalist” approaches to culture may have consequently lost their descriptive power.
3. The “increased interactions between diverse local and global discourses” (pp. 481-484). As an example, the locally-based National Committee for International Trade in Higher Education influenced the first ever education policy presented to the World Trade Organization (WTO), which was expected to have worldwide repercussions. In a similar vein, local literacy practices are not affected by their immediate contexts alone; “glocal” macro-forces may also be in play.
4. The “ideological contestation surrounding globalization” (pp. 484-488). Since globalization is forming a social, political, and economic world order, power

interests may collide. Perhaps the most powerful of these interests is neoliberalism, as transnational corporations tend to advocate.

These themes then suggested implications: TPC programs should reconsider distinctions between professional discourses, emphasize boundary work and transcontextual literacy practices, and develop partnership networks that transcend borders. These implications distill more specifically to 18 literacy practices for TPC students, such as unlearning cultural “trait” geographies and participating in the construction of global civil society.

Since its publication, the global literacies model (Starke-Meyerring, 2005) has proven influential. Some studies have nuanced the model theoretically (e.g., Sinclair & Blachford, 2015) or practically, such as through globally networked learning environments (e.g., Starke-Meyerring, Duin, & Palvetzian, 2007). Others have componentized the four themes, especially those on digital technology (Anderson, 2010; Bowen, Sapp, & Sargsyan, 2006; Cardon, 2008) and cultural identity (Angouri & Harwood, 2008; Craig, Poe, & Rojas, 2010; Ding & Savage, 2013; Friess, 2010; Maher, 2011; Nguyen & Miller, 2012; Palmer, 2013; Reinsch & Turner, 2006). While the global literacies model has thus shown valuably that “the global world defies easy answers” (Sinclair & Blachford, 2015, p. 405; cf. Schnakenberg, 2009, pp. 188-189), no study to date has considered the model’s two fundamental weaknesses, in addition to its datedness: weak review methods and a paucity of empirical support.

The model’s review methods are weak because they lack reflexivity and rigor. Rather than providing a methods section, Starke-Meyerring (2005) writes only, “I draw on four themes in globalization discourse that are particularly relevant to professional

communication” (p. 474). The resultant selection bias is apparent, as the model omits scholarship on global cities—urban areas with sufficient resource concentrations to make globalization possible in the first place (Sassen, 2000, 2012). The model also excludes TPC studies that invoke globalization in some way, which, considering TPC’s relations to globalization, may be valuable. However, weak review methods are characteristic of TPC in general. Although the field has published more than 90 review articles in its major journals, few have been reflexive and rigorous. Those few include Batova (2014) and Zollett (2014), who demonstrated the value of integrative reviews, and TPC needs more to inform its understandings of globalization.

The global literacies model also lacks empirical support, and this for a twofold reason: the four themes and three implications were constructed almost exclusively from theoretical work (e.g., Appadurai, 2001; Benhabib, 2002; Bourdieu, 2004; Scholte, 2000; Singer, 2004), and they have not undergone empirical testing. The result has been mismatches between global literacies and researchers’ own experiences with globalization, Thatcher (2010) among them:

Many current globalization theories would have us believe that globalization means a significant amount of cultural blending, hybridization, glocalization, and cross-border flow of rhetorical and cultural patterns with geopolitical borders relatively meaningless, and, as such, an outdated mode of inquiry. After ten years of systematically working on both sides of the [U.S.-Mexico] border, that’s not my picture (p. 14).

Granted, Starke-Meyerring's (2005) purpose was to facilitate dialogue, and TPC has only recently begun to develop methods that can capture globalization's legible complexities. Perhaps the most robust has been Ding's (2014) critical contextual methodology, targeted towards the global circulation of severe-acute respiratory syndrome (SARS) discourses. But more empirical methods are needed, even those that seem "utterly foreign" at the outset (Savage & Mattson, 2011, p. 31). Of particular value is empirical globalization research beyond North America (Du-Babcock & Bhatia, 2013) and TPC's ordinary conceptual orbit (Savage & Mattson, 2011).

Given globalization's significance, this dissertation responds to the two fundamental weaknesses in the global literacies model. Since those weaknesses are not limited to Starke-Meyerring (2005), such response can help address TPC's broader methodological needs, encouraging greater directness and depth in global inquiry. Part I of the dissertation thus focuses on the question *how has TPC instantiated globalization?* This review synthesizes integrative review with grounded theory, analyzing the field's conceptual understandings of globalization. The analysis generates a conceptual framework to guide further empirical studies

Supporting the conceptual framework, Part II turns to the question *how has globalization, as made legible in a global city, instantiated TPC?* That global city is Songdo, South Korea, and this empirical study subsequently imports linguistic landscape methods, which can capture indices of globalization "on the ground" in high analytical detail (see, e.g., Blommaert, 2013). A geosemiotic analysis (Scollon & Scollon, 2003) parses Songdo's symbolic characterization, a key in the city's further globalization efforts

(Kim, 2010), and identifies overlapping place identities. These place identities, in turn, are demonstrably enacted through interdiscursive processes materialized as TPC artifacts displayed in public, including in Central Park. Taken together, then, the dissertation's two parts update the global literacies model, suggesting implications for TPC research, teaching, and ethics in the urban twenty-first century.

Part I
How has TPC instantiated globalization?

Chapter II

Integrative Review Methodology

The previous chapter discussed how, despite globalization's threefold significance in TPC, few studies have addressed the topic in directness and depth. Among the most influential TPC studies that do has been Starke-Meyerring (2005); however, her global literacies model is limited by weak review methods and a paucity of empirical support, which reflect broader needs in the field. As an initial response, this chapter synthesizes integrative review and grounded theory, generating a conceptual framework that maps TPC's understandings of globalization.

Why Review

An important question to address is why TPC's understandings of globalization matter in the first place. After all, TPC has long embraced theoretical and methodological pluralism (see Goubil-Gambrell, 1998; McNely, Spinuzzi, & Teston, 2015; Walton, 2014), and globalization scholarship is sharply contested—making any knowledge claims potentially problematic. However, scholars have suggested several compelling reasons to review TPC's own understandings of globalization, the challenges notwithstanding. Those reasons are reflexivity, rigor, and relevance.

Reflexivity. Reflexivity operates on numerous levels with respect to TPC and globalization. First, scholars disagree on what globalization is, and so “every study of globalization should include a careful and critical examination of the term itself” (Scholte, 2005, p. 49). Second, research on global phenomena has been limited through

ethnocentrism (Thatcher, 2010), outdated cultural or geopolitical models (Ding, 2014), and inattention to social justice (Agboka, 2013a). Reviewing the field's understandings of globalization can help expose hidden assumptions, as well as gaps in research and knowledge claims. Third, TPC has tended to import—rather than generate and systematize—its understandings of globalization, which has created mismatches between theory and empirical observations (Thatcher, Agboka). Reviewing TPC's understandings of globalization could start to resolve such mismatches, encouraging, in turn, greater reflexivity in global inquiry.

Rigor. Rigor in research methods is essential to the “integrity and future” of TPC (Blakeslee & Spilka, 2004, p. 73). Scholars have thus at times critiqued TPC methods, which, under globalization, must respond to emergent tools, technologies, spaces, and practices (McNely, Spinuzzi, & Teston, 2015). Absent from these critiques, however, is discussion of rigor in research reviews. Research reviews are critical both as preludes to empirical studies and as inquiry themselves; in either form, research reviews can help the field respond to new challenges, investigate relevant issue areas in detail, and heighten its professional credibility (Hayhoe, 1997). Moreover, TPC's five major journals have published approximately 90 articles that signal themselves as research reviews of some kind. Yet, these reviews seldom detail their methods, and the field lacks standards for judging their quality. Reviewing TPC's understandings of globalization—with rigor—may therefore provide a needed step forward, not only conceptually but methodologically.

Relevance. Studies relating to TPC and globalization suggest considerable breadth. The contexts for these studies range from small start-up companies (Fraiberg, 2013) and university classrooms (Adkins & Frick, 2009; Day & Frye, 2011; deWinter, 2014; Frost, 2015; Savage & Mattson, 2011) to transnational corporations (Baehr, 2015; Kimball, 2015) and global health institutions (Ding, 2014). The geopolitical settings range from resource-constrained environments, such as in Rwanda (Walton, Zraly, & Mugengana, 2015) and Armenia (Harootuian, 2007), to fully modernized regions. Research objects have included sexuopharmaceutical documentation (Agboka, 2013b), manager perceptions (Amidon & Blythe, 2008), call center practices (Xu, Wang, Forey, & Li, 2010), international legislation (Martinez, 2015), and computer science metaphors in translation (Mehrpooya & Nowroozadeh, 2013). Considering that breadth, TPC's understandings of globalization might have relevance for not only TPC professionals, but for other academic fields as well. As important as why to review, though, is the question of how.

How to Review

Research reviews can take numerous forms. These forms include integrative reviews (Callahan, 2010; Torraco, 2005; Whitemore & Knafel, 2005), systematic reviews (Armitage & Keeble-Allen, 2008), meta-synthesis (Sandelowski, Docherty, & Emden, 1997; Zimmer, 2006), meta-ethnography (Noblit & Hare, 1988), qualitative meta-analysis (Schreiber et al., 1997), and meta-analysis (Hunter & Schmidt, 2004; Trikalinos, Salanti, Zintzaras, & Ioannidis, 2008). The strengths and weaknesses considered, the most appropriate for Part I of the dissertation is the integrative review.

Integrative Reviews

An integrative review breaks down literature into its basic elements and key relationships, critiques them, and provides new insights. Thus, an integrative review may explore established topics that have proliferated across contexts, such as globalization, or emergent topics that warrant additional inquiry (Torroco, 2005). Regardless of the topic, however, the methods should be rigorous, and a tenuous consensus exists around three principles of rigor: clarity, criticality, and justifiability.

Clarity. In an integrative review, methodological decisions should be detailed so that readers can “follow the logic of the decision trail” (Whittemore, 2008, p. 153): who collected the data, when and where the data were collected, what was found, and why certain data were included in the final data set (Callahan, 2014). In addition, findings should be presented in an understandable format, such as a conceptual framework, research agenda, or metatheory (Torroco, 2005). Such clarity makes the integrative review replicable and reflexive (Batova, 2014)

Criticality. The literature collected, no matter how comprehensive, should not be summarized alone. Rather, it should be subjected to critical reflection and critical analysis. The former refers to “the positionality that authors should consider when reviewing and analyzing the literature of the data set—their assumptions, beliefs, and values that influence the way in which they interpret the literature and subsequently craft insights” (Callahan, 2014, p. 274). The latter, to “the assessment, or critique, of the literature itself” (p. 274). These two processes may in turn expose knowledge that has

been taken for granted, missing, or poorly represented, suggesting revisions that should be made in the field (Torroco, 2005).

Justifiability. Authors should justify why an integrative review was appropriate (as in Batova, 2014; Zollett, 2014). Moreover, findings should be well supported and robust. Such rigor derives from “Recursive and repetitive verification... confirming that the interpretation is grounded in data” (Bondas & Hall, 2007, p. 153).

TPC authors have already shown integrative reviews as relevant to the field. For example, Batova (2014) investigated how content management strategies influence the quality of document translation, and Zollett (2014) analyzed how the interactivity of corporate websites has evolved. Both studies produced rigorous findings, yet the authors’ claims of transparency, replicability, and exhaustiveness are troublesome for at least two reasons. One reason is that integrative reviews are not necessarily exhaustive. Granted, some research topics may allow for exhaustive data collection, but the aim is for representativeness.

A second reason is that neither author, perhaps owing to space constraints, described the review methods in detail. Batova (2014) does mention a two-step process of coding, and Zollett (2014) does cite the analytical categories he deployed. However, theorizing the synthesis and critique of the literature in greater depth could further develop integrative reviews in TPC. Such theorizing, for instance through Grounded theory, could strengthen clarity, criticality, and justifiability.

Grounded Theory

Grounded theory is a method of constant of comparison that “discovers” theory from data. Since its development, grounded theory has proven valuable because of its power to generate new insights into complex phenomena (Corbin & Strauss, 2014, p. 6; see also Strauss, 1987, p. 1), maintain tight alignments between data and theory (Glaser & Strauss, 1967, p. 238), and cut across academic disciplines (Corbin & Strauss, 2014, p. 6). Grounded theory has thus been “heralded as revolutionary in the history of qualitative traditions” (Walker & Myrick, 2006, p. 547). However, since the originators, Glaser and Strauss, parted ways, grounded theory has become perhaps “the most frequently discussed, debated, and disputed of the research methods” (Walker & Myrick, 2006, p. 547). This contestation has resulted partly from misapplications of grounded theory and partly from nuanced questions regarding extent literature, standards of rigor, and “methodological slurring” (Suddaby, 2006). With methodological evolution ongoing, transparency regarding what constitutes grounded theory, its elements and process, is therefore essential.

Elements. Grounded theory generates two kinds of theoretical elements. The first are conceptual categories and their properties. According to Glaser and Strauss (1967), a category constitutes a basic building block of a theory—an integrated explanation, description, or prediction of a complex phenomenon that “fits” the data and “works.” Fit pertains to how readily the category applies to, and is indicated by, the data. Work, to how well the category explains, and is relevant to, the phenomena under study (Glaser & Strauss, p. 3).

A property constitutes a basic building block of a category. Importantly, while categories and properties are indicated by the data, they are nonetheless distinct from the data, having “life apart from the evidence that gave rise to them” (Glaser & Strauss, 1967, p. 36). Categories and properties thus emerge during, and not prior to, research (Strauss & Corbin, 2014, p. 7).

The second kind of theoretical elements is hypotheses, or generalized relations between the various categories and properties. Hypotheses ultimately grow into “an open-ended scheme, hardly subject to being redesigned. It is always open-ended because, as new categories are being generated and related, there always seems to be a place for them in the scheme” (Glaser & Strauss, 1967, p. 41). That scheme becomes a grounded theory through a central process, the constant comparative method.

Process. As a process, the constant comparative method involves four recursive steps. The first is comparing incidents applicable to each category. Doing so requires dividing the incidents, or data, into as many categories as possible, following what Glaser and Strauss (1967) consider the “basic, defining rule” for comparisons: “*while coding an incident for a category, compare it with the previous incidents in the same and different groups coded in the same category*”(p. 106, italics in the original).

Strauss (1987) later detailed more particular ways of coding and comparing incidents: open, axial, and selective. Open coding analyzes data without restriction, searching for concepts that fit (p. 28). Axial coding analyzes one category intensively and distinctly, resulting in relationships between that category and its properties (p. 32). Selective coding attempts to identify core categories, which can serve to formulate a “parsimonious

theory” (p. 33). More particularly, core categories satisfy most or all of the following criteria (p. 36):

- a) Central to the conceptual framework
- b) Common in the data
- c) Easily relatable to other categories
- d) Clearly applicable to a more general theory
- e) Increasingly explicative as their properties emerge
- f) Inclusive of maximum variation in the data.

The core categories emerge recursively during the constant comparative method.

The second step is integrating categories and their properties. By integration, Glaser and Strauss (1967) mean relating categories—and then the category properties—in as many ways as possible, generating a “unified whole” (p. 109). As an example, they mention their sociological work on dying in a hospital. They observed that nurses’ calculation of social loss related to their constructing a social loss story about the patients. These two categories, in turn, related closely to the nurses’ coping strategies. In this way, the categories of calculation, construction, and coping began to integrate.

The third step is delimiting, which occurs on two levels. One level is the theory, and the other is categories. Delimiting the theory is intended to satisfy the requirements of parsimony of variables and formulations while maximizing scope.¹ Delimiting

¹ Strauss would later reconsider his position on delimiting theory and categories. In his updated view, “grounded theory methodology emphasizes the need for developing many concepts and their linkages in order to capture a great deal of the variation that characterizes the central phenomenon studied during any particular research project” (p. 7). Because of time constraints on

categories meanwhile encourages theoretical saturation, when coding becomes more or less predictable and no new categories emerge. Such delimitations help researchers focus on data relevant to theory and negotiate the “universe” of data that grounded theory investigations tend to produce (Glaser & Strauss, 1967, p. 113-114).

The fourth step is writing the theory. According to Glaser and Strauss (1967), writing the theory involves processing the data through “memos.” They recommend collating the memos for each category; building the memos from a conceptual framework to an integrated, systematic theory that fits the data; and presenting the theory in a concise, comprehensible form². The theory’s credibility can then be judged by two measures: the detail of its descriptions, and the justifiability of the methodological decision making and conclusions (Glaser & Strauss, 1967, p. 230). Again, however, these steps are recursive rather than sequential, and hence the need for regular reflection and theoretical sampling—that is, joint collection, coding, and analysis of data, which then indicates where to collect data next (p. 45).

Given the foregoing discussion, grounded theory’s fundamental elements and process align closely with integrative reviews. Both grounded theory and integrative reviews emphasize the generation of conceptual frameworks, the grounding of theory in data, and the need for reflexivity, rigor, and relevance throughout a study. These qualities align as well with the study objective for Part I.

this dissertation project, I have necessarily followed Glaser and Strauss (1967) rather than Strauss (1987) on this methodological point.

Objective

Part I's objective is to map TPC's understandings of globalization. The result is a conceptual framework that considers how TPC literature, empirically supported or not, has instantiated globalization, suggesting ways of moving forward. In this way, the conceptual framework formulates an initial response to Starke-Meyerring (2005) as well as to the field's broader needs.

Methodology

In accordance with grounded theory, the present study followed theoretical sampling. Thus, data collection and analysis occurred jointly, beginning in early 2014 and concluding in early 2016. The methodology can subsequently be divided into three stages, as shown in Table 1.

Stage	Dates	Purposes
I	January 14 - 18, 2014 (collection) January 19, 2014 - January 13, 2015 (analysis)	To capture a wide variation of data To develop as many initial categories as possible
II	January 14 - 18, 2015 (collection) January 19 - November 2, 2015 (analysis)	To delimit the corpus to a manageable size To identify possible core categories To begin to integrate the emerging categories and theory
III	November 3 - 5, 2015 (collection) November 6, 2015 - January 15, 2016 (analysis)	To test and theoretically saturate the emerging core categories with additional data To integrate categories and their properties To write the theory, in this case a conceptual framework

Table 1: The methodology's three stages of theoretical sampling

The details of each stage are discussed below.

Stage I

The purpose of Stage I was twofold: to capture data with wide variation, and to develop as many initial categories as possible. Hence, since globalization has numerous conceptual variants, such as “globalized” and “globalism,” data collection and analysis began widely. From January 14 to 18, 2014, a corpus of some 800 academic journal articles was compiled from five academic journals: *IEEE Transaction on Professional Communication*, *Technical Communication Quarterly*, the *Journal of Business and Technical Communication*, *Technical Communication*, and the *Journal of Technical Writing and Communication*. These five academic journals are widely considered the leading publications in TPC.

The corpus itself was compiled by searching the term “global” in the journals’ electronic databases, including titles, abstracts, keywords, citations, and article texts. In addition to “global,” search results returned similar terms such as “globalization,” “globalized,” and “globalizing” (see Appendix 1), and these were accepted into the corpus on the grounds of searching widely before searching narrowly. Table 2 shows the corpus that resulted.

	<i>TC</i>	<i>TCQ</i>	<i>IEEE</i>	<i>JBTC</i>	<i>JTWC</i>	Totals
Number of articles	283	178	118	176	17	772
Number of “global” instantiations	1,377	1,136	902	1,152	352	4,919

Table 2: The corpus collected and analyzed during Stage I

In all, the corpus at this stage consisted of 807 academic journal articles—118 from *IEEE*, 176 from *JBTC*, 24 from *JTWC*, 283 from *TC*, and 206 from *TCQ*. These articles included research reports, book reviews, calls for papers, editorial introductions, contributor biographies, and opinion pieces, all published between 1972 and 2014. Owing to issues of institutional access, 35 omissions were necessary. As a result, the final corpus consisted of 772 academic journal articles.

Because the corpus size, the 772 journal articles were coded using Atlas.ti, a qualitative data analysis software common in the social sciences. As I began to analyze and code the data, I made two initial hypotheses: First, the core categories of “global” would be directly related to codes in vivo—that is, codes taken directly from the text itself (see Strauss, 1987, p. 30, 33). Second, these core categories, initially coded in vivo, would co-occur closely with textual references to the term “global” or its variants. Thus, I used Atlas.ti’s auto-coding function to code for “global,” yielding 4,919 instantiations. I then examined these instantiations more closely and coded for possible categories and properties. For example, one article contains this response from a participant at an educational workshop:

The most interesting thing I learned yesterday was how the audience in a high context and low context culture react and how to rewrite a business letter from the point of view of different culture to the audience of different culture (Barnum, Philip, Reynolds, Shauf, & Thompson, 2001, p. 407).

This instantiation I coded as “culture,” and then use Atlas.ti’s search function to locate others—both in this article and in the rest of the corpus—that reference “culture” or one of its variants, such as cultural, intercultural, culturally, etc. These other instantiations were likewise be coded “culture,” and their relationship to each other—as well as to the emerging conceptualization of “global”—could then be explored.

Of course, one instantiation might generate multiple codes. The example above, with its references to ideas besides culture, was additionally coded for “audience,” “business,” “letter,” “point of view,” etc. Even with Atlas.ti, however, the corpus proved unwieldy, and challenges arose over the conceptual (in)equivalence of “global” and “globalization,” among other variants. The analysis therefore proceeded to Stage II, which was delimited to “globalization.”

Stage II

Stage II had three overlapping purposes: to delimit the corpus to a manageable size, to identify possible core categories, and to begin to integrate the emerging categories and theory. In consequence, on January 14 to 18, 2015, I delimited the corpus to articles that mention the term “globalization” or “globalization,” but opened the corpus to any year of publication—not simply those articles published since 1998. In addition, I searched these terms in databases for the field’s five leading journals, adding to the corpus any publications released since the Stage I data collection. Table 3 shows the corpus that resulted.

	<i>TC</i>	<i>TCQ</i>	<i>IEEE</i>	<i>JBTC</i>	<i>JTWC</i>	Totals
Number of articles	82	46	38	52	5	223
Number of “globalization” instantiations	190	161	88	200	40	679

Table 3: The corpus collected and analyzed during Stage II

This delimited corpus, focused on “globalization,” ultimately consisted of 82 articles from *Technical Communication*, 58 articles from *Technical Communication Quarterly*, 38 articles from *IEEE Transactions on Professional Communication*, 52 articles from the *Journal of Business and Technical Communication*, and 5 from the *Journal of Technical Writing and Communication*. Articles not available online were copied from the archives housed at the University of Minnesota Walter Library.

In harmony with grounded theory, the analysis that followed involved open coding, axial coding, and selective coding, along with theoretical memo writing to integrate the emerging framework (see Strauss, 1987). As the core categories became more established, the analysis proceeded to Stage III.

Stage III

Stage III also had three purposes: to test and saturate the core categories with additional data, to integrate categories and their properties, and to integrate and write a grounded theory, in this case a conceptual framework. Thus, the final stage of data collection occurred from November 3 to 5, 2015 to January 1, 2016. Following theoretical sampling, this data collection involved not only TPC’s five major journals, but

also *Connexions* and *Rhetoric, Professional Communication, and Globalization*, which are dedicated to issues of globalization. *Programmatic Perspectives* was added as well, and this for two reasons: First, the emerging theory suggested the import of education as a category; and second, the *National Council of Teachers of English* lists the journal as central to TPC.

Subsequently, searches for “globalization” and “globalisation” in journal databases, as well as individual journal issues, added further articles to the corpus, shown in Table 4.

	<i>TC</i>	<i>TCQ</i>	<i>IEEE</i>	<i>JBTC</i>	<i>JTWC</i>	<i>CX</i>	<i>RPCG</i>	<i>PP</i>	Totals
Number of articles	87	47	38	54	7	11	8	12	264
Number of “globalization” instantiations	195	174	88	214	102	31	152	16	972

Table 4: The corpus collected and analyzed during Stage III

As can be seen, there were 11 additions from *Connexions*; 8 from *Rhetoric, Professional Communication, and Globalization*; 12 from *Programmatic Perspectives*; 5 from *Technical Communication*; 1 from *Technical Communication Quarterly*; 2 from *Journal of Business and Technical Communication*; and 2 from *Journal of Technical Writing and Communication*. No additional articles were returned from *IEEE Transactions on Professional Communication*. During the subsequent analysis, the “globalization” instantiations resulted in 1,208 codes total.

As in previous stages, the data analysis for Stage III consisted of open, axial, and selective coding, along with the writing of theoretical memos. Throughout the data analysis, I used grounded theory's constant comparative method, including theoretical sampling. The next chapter details the conceptual framework that emerged, mapping TPC's understandings of globalization.

Chapter III Conceptual Framework

Chapter II described a review methodology that synthesized integrative review and grounded theory, tooled towards rigor, reflexivity, and relevance. Resulting from the three-stage analysis, this chapter presents a conceptual framework that maps, for the first time in scholarship, TPC's conceptual understandings of globalization.

Core Categories

As mentioned previously, core categories are those that offer the greatest explicative power, or "fit" and "work," for the data (Glaser & Strauss, 1967, p. 3). Core categories for TPC's understandings of globalization, therefore, are materiality, meaning, and practice, as illustrated in Figure 1.

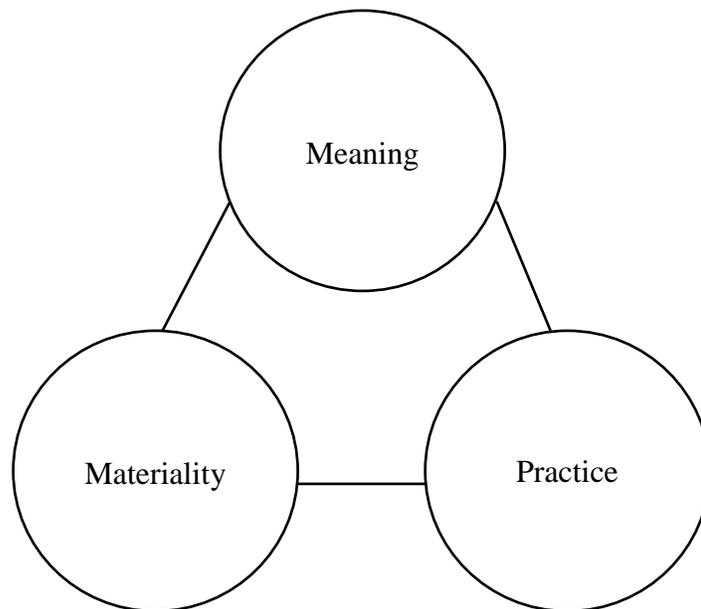


Figure 1: Core categories of TPC's understandings of globalization.

The connecting lines depict interlinkages that are more fluid than determined, more open ended than single channeled. As a simple example, numerous quotations in the globalization data mention information and communications technology (ICT). ICT, as a concept, may index network structures (materiality), technocratic discourses (meaning), or cultural uses and genres (practice)—or more likely, an admixture of all three. TPC’s understandings of globalization are richly nuanced in this manner, co-varying with location and time. Nonetheless, some mapping is possible, as shown in Figure 2.

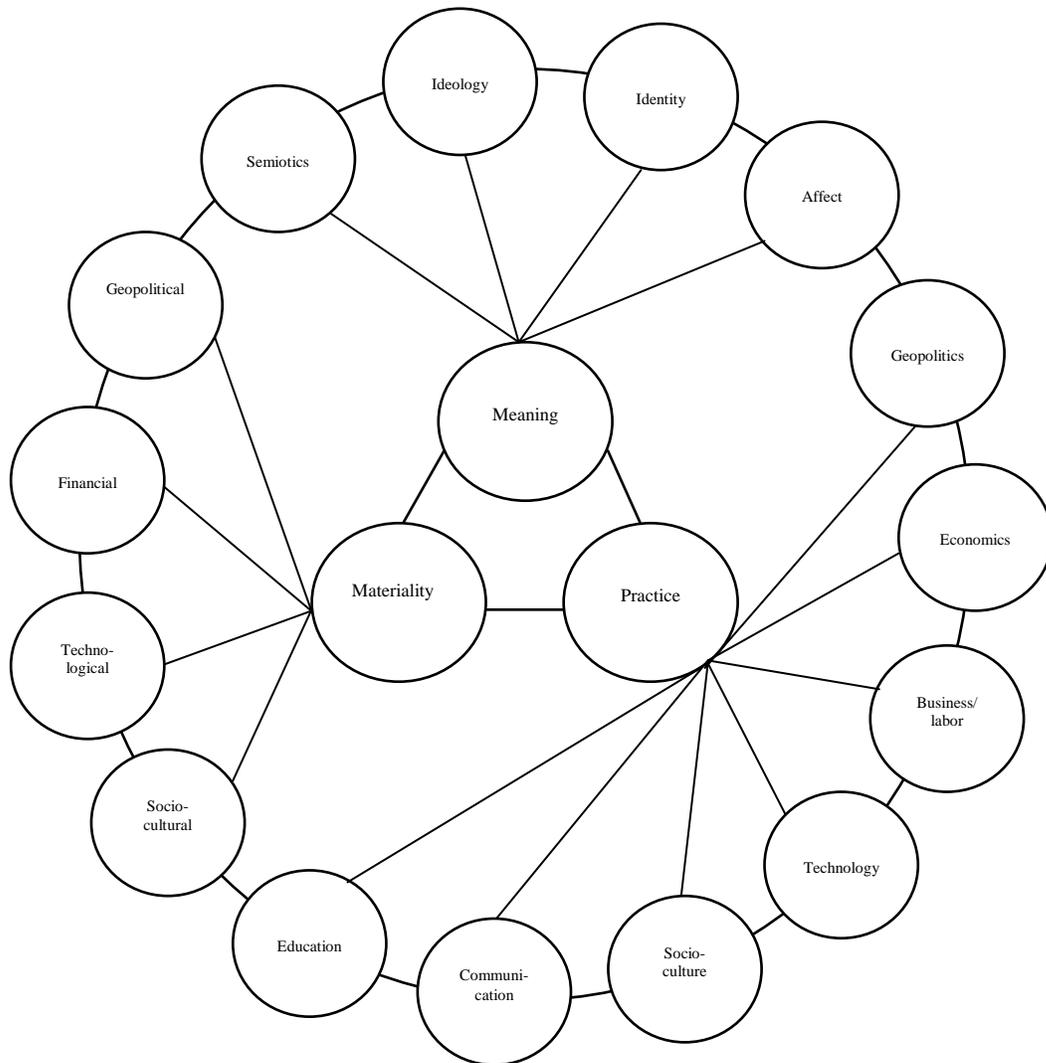


Figure 2: The conceptual framework’s core categories and categories

The following provides some detail on the core categories, categories, and properties (for sample instantiations, see Appendix 2). I have left this conceptual framework necessarily brief, suggesting gaps in how TPC has instantiated globalization.

Materiality

Materiality in TPC's understandings of globalization maps onto four categories: geopolitical, financial, technological, and sociocultural.

Geopolitical

Geopolitical materiality is understood primarily as territories and borders, which operate on numerous sliding scales. These scales matter because TPC professionals must navigate global, regional, and local materiality in their work (Huckin, 2002, as cited in Starke-Meyerring, 2005). For instance, such materiality may impact distributed work, law, or citizenship practices.

Global. Scales of global geopolitical materiality sharpen the divisions between politics and geography. At one extreme, the world becomes a political object of logical positivism (McKenna & Graham, 2000, p. 223). At the other extreme, geographic borders subside under a context of openness (Palmer, 2013, p. 388). This openness decentralizes sovereignty and citizenship from territory, transforming "citizens' rights from a close association with a person's place of birth to the acknowledgement and prioritization of human rights" (Palmer, 2013, p. 384; cf. Sapp, Savage, & Mattson, 2013). Meanwhile, this openness is thought to transform—hybridize—both the processes and artifacts of TPC (Palmer, 2013).

Between these extremes is the geopolitical materiality, mostly metaphorical, of global civil society. Global civil society is always emerging (e.g., Starke-Meyerring, 2005, p. 487; Starke-Meyerring, Duin, & Palvetzian, 2007, p. 143). However, it may crystalize in various institutional forms, such as the United Nations or the International Criminal Court (Palmer, 2013). These institutional forms are often in tension with economic practices, which may oppose them.

Hemispherical. Scales of hemispherical geopolitical materiality run North-South as well as West-Rest. *North-South* divisions encompass levels of development, such as industrialized and industrializing nations (Agboka, 2013a,b). Thus, the directional polarity is primarily metaphorical: The Global North may include the United States, Western Europe, China, and parts of Southwest Asia; the Global South may include Africa, Southeast Asia, Central and South America, as well as indigenous groups without formal statehood (Agboka, 2013a). Wealth concentrations or development characterize these North-South hemispherical divisions (Choudry, 2010; Zachry, 2007).

West-Rest encompasses levels of perceived homogeneity. The directional polarity, as with North-South, is metaphorical: West demarcates the United States, Canada, Western Europe, and Australia from other territories, rendering a hemispheric “western world” (Wang & Baake, 2006). This western world is associated with bias (Hunsinger, 2006), assumptions (Harootunian, 2007), and monoculture (Ding, 2013). It is also associated with globalization itself. In that sense, West conceptually equates to the “global”; Rest, to the “local” (Palmer, 2013). Such hemispheric divisions have

traditionally characterized colonialism. However, colonialism's geopolitical materiality transcends well beyond them (Agboka, 2013b)

Other hemispherical divisions are non-directional. For instance, language geopolitical materiality dichotomizes as *English speaking* and *non-English speaking* boundaries. Thus, Annous and Nicolas (2014) write that English has become an academic lingua franca in “non-English speaking countries” (p. 93). Zhou (2010) writes of the “English-speaking world” and “non-English languages” (p. 251). English language geopolitical institutions may therefore index, but are not reducible to, globalization.

Regional. Scales of regional geopolitical materiality vary in intensity. Ngai and Singh (2014) represent one extreme, writing that “for all the enthusiasm and vitriol generated by grand-scale globalization, it is the growth of regional interactions—trade, travel, the spread of religions, interethnic marriages—that touches the widest array of local populations” (p. 380). Regions are therefore significant in TPC's understandings of globalization. However, few studies focus on regions in detail, as noted below.

North America. Most TPC scholarship on globalization focuses on North America. This focus derives from the critical concentration of TPC programs there (St. Amant & Nahrwold, 2007). However, North America exerts normative pressure on the field's understandings of globalization (see Thatcher, 2010).

Latin America. This region is almost absent from TPC's understandings of globalization. The sole reference to Latin America mentions domination—economic, political, and military—from a powerful northern neighbor, ostensibly the United States (Boron, in Choudry, 2010).

Europe. The establishment of the European Union (Angouri & Harwood, 2008) and the Bologna Process (Annous & Nicolas, 2014) were significant for TPC. These establishments increased the global mobility of people, business, and education. Yet, the post-Soviet republics suggest a darker side to globalization's geopolitical materiality. Harootunian (2007) observed that opening regional borders has not necessarily led to greater democracy or individual freedoms, and TPC practices may be complicit in oppression.

Africa. Although Agboka (2013b) explores Ghana, few TPC studies on globalization investigate Africa as a region. Jeyaraj (2009) mentions Africa in a country list, implying a gap in the field's understandings of TPC, globalization, and this region.

Asia. As a region, Asia—and in particular East Asia—has been conceptually significant for TPC. Because of global trade, scholars “must” focus on Asia to understand TPC in global contexts (Du-Babcock & Bhatia, 2013, p. 239). East Asia also matters for educational reasons, as universities there have adopted transnational models (Annous & Nicolas, 2014).

National. Scales of national geopolitical materiality comprise countries and nation-states. These concepts are seldom defined but often debated and, problematically, interchanged. The focus has been on nation-states. At one extreme, nation-states are thought irrelevant (e.g., Starke-Meyerring, 2005; Ding & Savage, 2013). The philosopher Peter Singer, for instance, speculated that “we are moving beyond the era of growing ties between nation and beginning to contemplate something beyond the existing conception of the nation-state” (as quoted in Starke-Meyerring, 2005, p. 471).

At another extreme, countries and nation-states are thought highly relevant (e.g., Day & Frye, 2011; Madson, 2014; Ngai & Singh, 2014; Thatcher, 2010). Nation-states, for instance, can reinforce identify and national pride (Ngai & Singh, 2014). Countries can also provide meaningful frames of analysis, such as Thatcher's emic-then-etic approach. Whether TPC, as a field, has conceptually equated nation-states and countries remains to be investigated.

At a third extreme, geopolitical materiality pertains less to relevance and more to elision. Elision may influence which national geopolitical arrangements are, in the first place, visible. To be sure, TPC's understandings of globalization make visible some countries and nation-states while obscuring others. *China* (Cardon, 2008; St. Amant, 2004; St. Amant & Nahrwold, 2007; Wiles, 2003; Zachry, 2007) *India* (Jeyraj, 2009; Wang & Baake, 2006), *Russia* (Cardon, 2008), and *Mexico* (Craig, Poe, & Gonzalez Rojas, 2010; Thatcher, 2006) have relatively high visibility while other countries tend to be elided, including, interestingly, the *United States* and *Western Europe*. These countries are mentioned explicitly, or at least implied, in numerous TPC articles on globalization. However, TPC suggests little conceptual clarity on globalization's national impacts there.

Globalization may elide the accountability of national governments, which "are seen as acting in accordance with the practice of scientific management and capitalism itself" (Semonian, 2001, p. 503).

Ecological. Ecological geopolitical materialities are undeveloped in TPC. One ecological scale, however, scale is degrees of urbanization or ruralization. Thus, Melancon (2007) discusses how built environments, such as cities, produce identities,

especially with respect to race, gender, class, and sexuality (pp. 35-36). These differences among people, she suggests, result at least partially from differences in territory.

Ecological geopolitical materialities are metaphorical as well. Yet, these materialities seldom, if ever, apply to globalization as a whole. They apply only to particular domains of globalization, such as literacy practices (Self & Hawisher, 2002; Starke-Meyerring, 2005).

Subaltern. Subaltern geopolitical materialities are the “fourth world.” They include the oppressed, exploited, and marginalized in developed nations. As examples, Agboka (2013a) suggests the indigenous peoples of Alaska, Australia, New Zealand, Scandinavia, “and possibly almost every nation on earth” (p. 31). Other examples include those living in abject poverty—approximately one in three people worldwide (Sapp, Savage, & Mattson, 2013).

Sociocultural

Sociocultural materiality is understood primarily as societies, cultures, and communities. These sliding scales resist any definitive conceptualization (see Hunsinger, 2006). However, their conceptual content suggests their richness, contingency, and significance to TPC’s understandings of globalization.

Social. Social materiality is organized around power. In one pole are stable-for-now arrangements, such as an emergent global social order, one connected to economic and political practices (Starke-Meyerring, 2005, p. 484). In another pole is “widespread social transformation in all its forms” (Palmer, 2013, p. 288). The interactions between these poles can flatten—or deepen—structural hierarchies and disparities in social power

(Choudry, 2010, p. 390). A key question is globalization's relation to social justice (Agboka, 2013a,b; Choudry, 2010).

Cultural. Cultural materiality in TPC's understandings of globalization is fraught. Any definitive conceptualization is therefore impossible (Hunsinger 2006). Still, TPC has understood cultural materiality—organized primarily by difference—as traits, borders, and systems.

Traits. Cultural materiality as traits has been resisted and rejected in TPC. These understandings, according to Hunsinger (2006), derived from a desire to counterbalance social upheavals during the 19th and 20th centuries. Thus, cultural materiality as traits assumes fixed, essentialized notions of culture (Scott & Longo, 2006), perhaps including stereotypes (Wang, 2013), which lose their relevance and descriptive power under globalization.

Borders. In TPC's understandings of globalization, cultural materiality as boundaries is significant because salient. Indeed, “The tacit character of culture suggests that we are perhaps most aware of it when standing on or near its boundaries” (VanMaanen & Laurent, as quoted in Duin, 1998, p. 367). Those borders or boundaries vary in degrees of abstraction. At one pole are geopolitical borders (e.g., Self & Hawisher, 2002, p. 264; Mohan, Omar & Aziz, 2002, p. 266), at times invoked unintentionally. Agboka (2013a), for example, implies geopolitical borders—national culture—when he writes of “taking a product from its cultural context and inserting it into a context much different from the from the source culture” (p. 41). Hunsinger (2006) similarly implies national culture in his discussion off North American and Japanese

business professionals—an understanding of culture dependent on the nation-states he critiques.

At another, more abstract pole are “cultural and linguistic” borders (see Reinsch & Turner, 2006). These understandings of cultural materiality unmoor identity from place, and hence allow for greater porousness and flux: Cultural borders can become “constant creations, recreations, and negotiations of imaginary boundaries between ‘we’ and ‘others’” (p. 479). Such a characterization is disputed, however. Thatcher (2010), for instance, advocates borders as a starting point for research, rejecting TPC’s turn to critical cultural studies. Palmer (2013), in contrast, questions the conceptual usefulness of borders entirely, noting that they imply distinct entities or homogeneity.

Systems. Cultural materiality as systems emphasize agency, contingency, and complexity, what Wang (2008) considers “process.” He adds that “As an open and dynamic system, culture always takes on new meanings through a group’s constant constructing of social reality in social interactions. This is especially true during the globalization process” (p. 138; cf. Hunsinger, 2006). Thus, materiality cannot be untethered entirely from meaning and practice.

Communal. Communal materiality is organized around discourse, which provides an “organizational coherence” (McKenna & Graham, 2000, p. 227).

Locational. Locational communal materiality scales from the international or global to the local. International communal materiality is more physical than imaginative. For “According to its members, the international community is very real: ‘The international community does exist. It has an address. It has achievements to its credit’”

(McKenna & Graham, 2000, p. 227). International communal materiality thus comprises, for the most part, intergovernmental organizations and transnational corporations, which have some authority across national borders.

Diasporic. Diasporic communal materiality relates to identity unmoored from place. For instance, Russian nationals have produced numerous immigrant websites (Sapienza, 2001), creating what Aihwa Ong termed “transnational connectivities” (as quoted in Ding, 2013, especially pp. 128-129). Transnational connectivities link people not only through identities and places, but also through technological infrastructure (Ding, 2013).

Linguistic. Linguistic communal materiality forms around language practices—and resistance to them (Bokor, 2011). Those language practices may be metaphorical, as in computer science discourse. They may also be hierarchical, as in translation practices involving “source” and “receptor” communities (Mehrpooyah & Nowroozzadeh, 2013).

Scientific. Scientific communal materiality subdivides into paradigms and tools (Wang, 2008), as well as areas of practice (Dayton & Bernhardt, 2004). This materiality, which may include dismantled hierarchies between researchers and participants, is “messy: unpredictable, mutable, contingent, serendipitous, complex, and challenging” (Walton, Zraly, & Mugengana, 2015, p. 45).

Technological

Technological materiality is critical in TPC’s understandings of globalization, varying in degrees of integration and specificity. There are five nested categories: digital networks, ICT, computers, mobile technologies, and text.

Digital networks. Digital networks characterize globalization because they are thought to facilitate it. Examples from the data are legion: “enabling infrastructure” (Munkvold, 2005, p.78), “unprecedented access” (St. Amant & Rife, 2010, p. 249), “transcend traditional borders” (Starke-Meyerring, 2005, p. 486; cf. Starke-Meyerring, Duin, & Palvetzian, 2007) and “local-global connections” (Starke-Meyerring, 2005, p. 484; cf. Wang, 2008), to name only a few. The friction points that mediate digital networks, such as information laws, are often hidden or dismissed (St. Amant & Rife, 2010).

In addition, digital networks are conceptualized in TPC as ahistorical. That is, they are ever “new” (Louhiala-Salminen & Kankaanranta, 2011, p. 244; Matveeva, 2011, p. 406; Rosinski, 2007, p. 109; Saatci, 2008, p. 238; Semonian, 2001, p. 503; Walton, 2013, p. 429) or “contemporary” (Zachry, 2007, p. 470), or “evolving” (Carnegie, 2007, p. 452), obscuring human agents. Such conceptualizations can limn globalization as novel, progressive, and inevitable.

The most powerful digital network in TPC’s understandings of globalization is the internet. One reason is that the internet is *structural*. At one conceptual pole, the internet’s generative power is understood as convergent, and the broadest level of convergence is social and economic. The internet—and other digital technologies—are thought to increase both information quantity and its interlinkages, enabling what Manuel Castells famously termed the “network society” or “information society” (as quoted in Carnegie & Abell, 2009, p. 248). Information, or data, becomes the chief economic value.

In addition, the internet can create structural homogeneity. Palmer (2013) wrote, for example, that “there is no abyss between cultures, only individuals with varying connections to local and global networks” (p. 348). Similarly, Wang (2008) claimed that global networks, the internet included, provide cultural “levelers,” creating a similar set of behaviors and expectations among “the younger generation” worldwide (p. 142).

At another conceptual pole, however, the internet can be divisive. Terms such as digital divide or digital divergence are commonplace (Chong, 2012). However, they may cause misunderstandings over technological and economic opportunity. Firstly, most of the world still lacks internet access. Secondly, “having access to the Internet does not equate with having political, social, or economic power” (Choudry, 2010, p. 390).

Another reason is that the internet is *generative*. The internet has enabled diasporic networks (Ding, 2013; Sapienza, 2001), learning networks (Starke-Meyerring, 2005), and protest networks (Ding, 2013). Of these internet-generated networks, among the most significant are transnational connectivities. Transnational connectivities link diasporic communities not only with a particular discourse or cultural identity, but with a technological infrastructure (Ding, 2013).

A third reason is that the internet is *epochal*. In fact, the internet can eclipse globalization in importance, as TPC authors write of “the internet era” (Matveeva, 2011, p. 406) and times “prior to the internet” (Wang, 2008, p. 142). Thus, the internet can itself become a measure of time. These three reasons suggest the internet’s conceptual import in TPC’s understandings of globalization.

ICT. The concept of information and communications technology (ICT) is closely associated with regional development (ICTD). To that end, Walton (2013) recommends analyzing ICT infrastructure in cross-cultural or cross-organizational work. Such analysis, she claims, can illuminate the challenges of technological adoption and diffusion (Walton, 2013), which may be “central to social and economic well-being” (Carnegie & Abell, 2009, p. 248).

Computers. The most salient nodes in digital or ICT networks are computers, and this for several reasons. First, like the internet, computers are *epochal*. As Carnegie and Abell (2009) proclaimed, quoting Masuda, “The defining technology of the information age is the computer” (p. 248). This conceptual import impacts other materialities, diminishing, for instance, perceived relevance of space and time (Carnegie & Abell, 2009).

Second, computers are *mundane* or *ubiquitous*. That is, computers have become commonplace in both professional and personal settings (see Zhou, 2005).

Third, computers have become *exigent*. For many TPC professionals, computers are the “primary mode of communication” (Giordano & George, 2013, p. 210). In some settings, information exchange may depend solely on computers (Guo, D’Ambra, Turner, & Zhang, 2009).

Mobile technologies. Mobile technologies, such as web-enabled telephony (see Sousa, 2007), are mentioned but almost conceptually absent. Yet, technological materiality is also understood broadly as enabling the global mobility of goods, ideas, and people—an assumption that McKenna and Graham (2000) critique. The authors note that,

in this assumption, differing materialities and processes are “condensed into a single factor” (p. 242). However, “No explanation is offered as to why this might be the case” (p. 242).

Text. Though seldom emphasized conceptually, text is a significant technology in TPC’s understandings of globalization. On one level, text has an official function, as in government discourses on globalization (McKenna & Graham, 2000). On another level, text undergirds the construction of cultural identity, conceptualized as “a confluence of mobile and shifting streams of textuality—of political, ideological, economic, or ethnographic texts” (Hunsinger, 2006, p. 39; cf. Appadurai, 1996). Text can thus furnish ideological technology that shapes much of globalization’s materiality.

Financial

Financial materiality has been conceptualized in TPC as capital structures and labor structures, which manifest numerous sub-properties. Because of the resultant complexity, financial materiality is illustrated, roughly, in Figure 3.

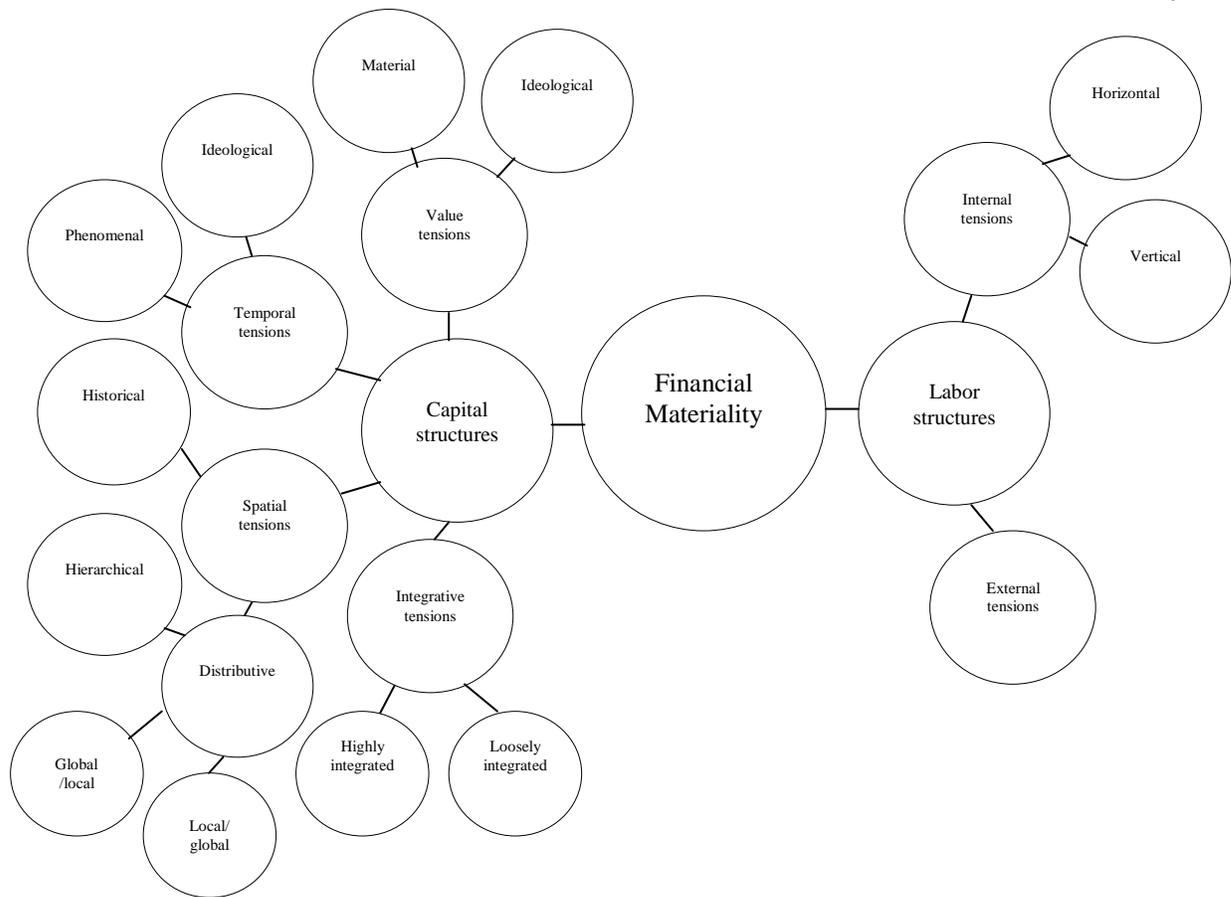


Figure 3: The financial materiality category, its properties, and sub-properties.

Capital structures. Capital structures, such as economies, have deep connections to globalization in TPC. In fact, TPC’s first “global” reference was to “the globalization of markets” (Weiss, 1992), and markets have since remained globalization’s master capital structures. There are four key tensions in these structures: temporal, spatial, value, and integrative.

Temporal tensions. Temporal tensions relate to divergent understandings of globalization and time, which may be ideological, phenomenal, or historical. These categories are not mutually exclusive; rather, they intersect.

Ideological temporal tensions are evident in Choudry (2010), who claims that globalization's roots are obfuscated by design. That obfuscation may result from several motivations. One is the ideological interconnections of history, politics, and economics, which circulate "a common fantasy" of access and mobility (p. 390). Another is the unpleasantness of globalization's material outcomes, its "social costs" (p. 384) and "deeply colonial and orientalist lens" (p. 382). Such ideologies promote "free market capitalist development" (p. 392), though ideological temporal tensions are not limited to capitalism. They might also promote nondemocratic ends (Harootunian, 2007, p. 91).

Phenomenal temporal tensions pertain to globalization's presumed trajectory, speed, and intensity. Specifically, globalization is thought "rapid" (Choudry, 2010, p. 382), "increasing" (Devoss, Jasken, & Hayden, 2002, p. 69; Munkvold, 2005, p. 78), "ongoing" (Madson, 2014, p. 78), and even "inevitable" (Amidon & Blythe, 2008, p. 15; also Carney, 2010, p. 101). Few TPC scholars have investigated how globalization may reverse, slow, or impact regions unevenly (see, e.g., Agboka, 2013a,b; Walton, 2013).

Historical temporal tensions pertain to globalization's diachronic organization. That organization may be marked by events, such as the United States dot-com burst (Salvo, 2002). It may be instead be marked by structural shifts, the information economy of the twentieth century disrupting the industrial economy of the nineteenth (Jablonski, 2005)—or postmodernism, modernism (Wilson, 2001; Agboka, 2013b). It may also be

marked by stages, the most recent occurring around 1990 (Cardon, 2008). As Sinclair and Blachford (2015) note, the globalization of economies and communication is not new. Such integration was already well underway by the 1880s, if not before then. However, TPC has yet to explore deeper histories of globalization.

Spatial tensions. Spatial tensions relate to divergent understandings of globalization and space. In particular, these tensions are hierarchical or distributive—categories that intersect.

Hierarchical spatial tensions mediate the uneven remit and pressures of capital structures. Such differences are at times conceptualized with water metaphors. For example, a nation “can compete and ride the wave of globalization or be carried by it and thrashed on the shores of the new economy” (Mohan, Omar, & Aziz, 2002, p. 265). Similarly, “though the economic tide of globalization is lifting yachts, it is swamping rafts” (Hayhoe, 2006, p. 9). These metaphors suggest a hierarchy of powers that benefits unequally from capital structures (see Savage & Mattson, 2011), even to economic destruction. As Agboka (2013a) wrote, industrialized countries in North America, Western Europe, East Asia, and Southwest Asia “can fend for themselves very well” (p. 30). Yet, for the rest of the world, including the exploited or marginalized in developed regions, “it’s an entirely different set of stakes” (p. 31).

Distributive spatial tensions, deeply connected to hierarchy, mediate the resource concentration of capital structures. These tensions manifest themselves on numerous scales. One scale is *global/local*. During the early 2000s, for example, India experienced a period of heightened globalization. Yet, the “globalization of prices” effected an

“Indianization of incomes” (Choudry, 2010, p. 394). The local poor, especially in rural areas, saw investment, credit, employment, and food supplies dwindle. Global capital structures thus had vastly uneven distributive effects on a local scale.

A second scale of distributive spatial tensions is *local/global*. By 2005, transnational corporations (TNCs), all with local command centers, were understood in TPC as “a formidable economic and globally consolidated force” (Starke-Meyerring, 2005, p. 485). Some of these TNCs maintain greater capital resources than entire countries and. As a result, these TNC’s may hold considerable power over the distributive benefits of global capital structures (McKenna & Graham, 2000; Starke-Meyerring, 2005; Starke-Meyerring, Duin, & Palvetzian, 2007).

Both scales of distributive spatial tensions, which impact global poverty (see Sapp, Savage, & Mattson, 2013), can heighten in circulated images. For globalization is often imaged as a vehicle that creates high standards of living for all. However, certain capital structures “are not present to assist these individuals in poor countries to make the images they see become a reality. Thus, globalization just makes these people aware of what they don’t have, without supplying the resources to obtain something better” (Staples, 2007, p. 116) Meanwhile, “highly skilled workers” can purportedly enjoy a “boundaryless career” (Jablonski, 2005, esp. pp. 14-23).

Value tensions. Value tensions describe material values (e.g., commodities) more than ideological ones (e.g., free trade). One such tension is between information and knowledge. The concepts are in some instances interchangeable, as in “the ‘new’ postindustrial information, or knowledge economy” (Jablonski, 2005, p. 8). They are not

in other instances, though, as in “applied conceptual knowledge in the global information economies” (Nahrwold & Bauer, 2004, p. 120). This conceptualization, in harmony with Lyotard, presents information as knowledge commoditized (as quoted in Carnegie & Abell, 2009).

Such value tensions may be more imagined than real. Andrew Feenberg claims that, despite extensive conceptualizations to the contrary, “The total global system is still an industrial system with enormous productive capacity. The 19th century lives on” (as quoted in Zachry, 2007, p. 470). Thus, value tensions might in reality be characterized by mass production and mechanization, more so than information and knowledge.

Integrative tensions. Integrative tensions relate to the master form of capital structures: markets. At one pole, markets are conceptualized as highly integrated, evident in such terms as “the global market” (Ngai & Singh, 2014, p. 366) or “globalization of the marketplace” (Devoss, Jasken, & Hayden, 2001, p. 69). Such integration results from “huge, vague, economic forces at work” (Wilson, 2001, p. 82). At another pole, markets are conceptualized as integrated more loosely, evidenced in such terms as “globalization of markets and industries” (Munkvold, 2005, p. 78). Both poles, however, are speculative.

Labor structures. In TPC, labor structures are conceptualized primarily as businesses, companies, organizations, startups, and TNCs. Of these material forms, TNCs are the most significant. One reason is their number. As Sapp, Savage, and Mattson (2013) stated, quoting Ruggie, “The most visible manifestation of globalization today are some 70,000 transnational firms, together with roughly 700,000 subsidiaries and millions

of suppliers spanning every corner of the globe” (p. 2). A second reason is geopolitical and economic power. With that power, TNCs may foster “global corporate rule” (Choudry, 2010, p. 385) and attenuate the influence of civil society institutions (Starke-Meyerring, 2005). TNCs may even abuse human rights (Sapp, Savage, & Mattson, 2013).

TNCs often structure labor through supply chains (see Munkvold, 2005). With globalization, “external arms-length transactions” (Sapp, Savage, & Mattson, 2013, p. 5) have become increasingly internal and dispersed. Intra-firm trade subsequently accounts for a substantial proportion of global trade overall, with supply chains siphoning capital work from national economies—“functioning in real time, and directly shaping the daily lives of people around the world” (Sapp, Savage, & Mattson, 2013, p. 5). In this way, supply chains are potentially exploitative. As Andrew Feenberg observed, numerous TNCs have exploited traditional family structures in East Asia (Zachry, 2007).

TPC understands such labor structures as in tension with capital structures. In particular, access to capital structures, such as markets, must be negotiated (Ngai & Singh, 2014). Labor structures are subsequently tensed in their materiality (see Wang & Baake, 2006) in ways internal and external.

Internal tensions. Internal tensions are “vertical” or “horizontal.” *Vertical internal tensions* pertain to division of labor and social organization. At one pole, these tensions are conceptualized as flat or flattened (see Gygi & Zachry, 2010). As a result, employer-employee relationships may be reconfigured (Guiniven, 2001, quoting Gannon, Flood, and Paauwe). Networks, rather than hierarchies, may dominate (Spinuzzi, 2007, as quoted in Barton & Heiman, 2012).

At another pole, these tensions are conceptualized as well entrenched. That entrenchment results in part from internal content silos (Batova & Clark, 2014) and role valuation. Among knowledge workers, labor structures may privilege engineers and production designers over communication specialists (Amidon & Blythe, 2008). Another, related hierarchy divides “fungible” employees from their peers (Guiniven, 2001, p. 53)

Both poles conceptualize these hierarchical internal tensions as “constantly shifting” (St. Amant, 2002, p. 198), largely because of technological materiality, mobility, and the drive for competitive advantage.

Horizontal internal tensions pertain to workforce diversity. Thus, these tensions may be cultural (e.g., Devoss, Jasken, & Hayden, 2002; Craig, Poe, & Gonzalez Rojas; Guiniven, 2001) or connected to age, race, ethnicity, sex, and disability (Dusenberry, Hutter, & Robinson, 2015).

Though reduced by such terms as “*the global workplace*” (Palmer, 2013, p. 381, italics added), horizontal internal tensions are most clearly manifested in teams. This is because teams have increasingly structured workplaces, including in TPC. Currently, TPC professionals spend as much as 80% of their time on teams (Baehr, 2015). Those projects may cut across roles and specializations (Baehr, 2015), technological materialities, as well as times, locations, social networks, and organizational boundaries (Guo et al., 2009). In this way, horizontal internal tensions are linked closely to external tensions.

External tensions. External tensions pertain to spatial concentration and dispersal. With globalization, labor structures “must” expand beyond their geopolitical

borders (Saatci, 2008, p. 241). This expansion, in turn, weakens the relationship between work and place. Though not stated outright, TPC may now primarily conceptualize workplace as work/place. As one manager reported, his “biggest challenge... came from virtual companies with minimal physical presence and extensive networks maintained via digital and electronic communication” (Amidon & Blythe, 2008, p. 14). Labor structures may therefore manifest varying scales of material concentrations and distributions.

Meaning

The second core category in TPC’s understandings of globalization is meaning. Like the core category of materiality, meaning maps onto four categories: semiotics, ideology, identity, and affect.

Semiotics

Semiotic meaning operates along numerous scales of abstraction. The most abstract symbolical meanings, **symbols**, are perhaps the most elusive. TPC has conceptualized symbols as cultural resources (Palmer, 2013; Winkler, 2009; Wang, 2008), translocal flows (Starke-Meyerring, 2005; Hunsinger, 2006), and power (Veltsos, 2009). These references provide little conceptual elaboration. Yet, symbols have grown in disciplinary importance as TPC increasingly self-conceptualizes as “symbolic-analytic work” (Ballentine, 2015, p. 292).

Images. Images are likewise elusive because of their abstractness. At one pole, they are conceptualized as mere supplements to content (Goldstein, 2014; Veltsos, 2009; Zender, 2006). At another pole, as mobile, transformational products of imagination (Hunsinger, 2006). Neither pole offers much elaboration.

Narratives. Narratives are termed as accounts, stories, and histories. Of globalization, one *grand narrative* that TPC scholars critique is Thomas Friedman's. Friedman divides globalization into three stages, which he calls Globalization 1.0 (1492 to 1800), Globalization 2.0 (1800 to 2000), and Globalization 3.0 (2000 to present). The engines powering these historical transformations are primarily collaboration and ICTs, along with economic integration (see Amidon & Blythe, 2008). Choudry (2010) excoriates this master narrative as showing "the facilitation, institutionalization, normalization, and legitimation of global rule as a somehow evolutionary, organic process supposedly driven by technological advances rather than an imperative of corporate imperial dominance" (p. 385). However, Amidon and Blythe (2008) found that the business managers they interviewed tended to agree with Friedman, considering globalization a natural evolution of market economies.

Another grand narrative concerns deterritorialization, or the loosening and reimagining of geopolitical borders. This narrative, too, comes under sharp critique. Quoting Mathew, Choudry (2010) depicts these understandings as favoring the "immigrant bourgeois, who shares with the white bourgeois the agency to negotiate the nation-state successfully, while reproducing deterritorialized culture in the isolation of a suburb, begins to speak for all immigrants" (p. 393). Thus, narratives may be highly selective in the voices, peoples, and places they narrativize.

Rather than narrativizing globalization itself, a *small narrative* explains how globalization has impacted particular people and places. Carnegie and Abell (2009), for example, explore how "modern" and "postmodern" small narratives shaped the Seattle

Public library. The modern narratives emphasize hierarchy, categorization, homogeneity, and imperial relations (p. 256). In contrast, postmodern narratives emphasize new media, heterogeneity, networks, and “globalization” (p. 256). The material effect on the library was a hybrid design.

Discourses. Discourses are a key semiotic resource in TPC’s understandings of globalization. The conceptualizations of discourse are legion; however, in reference to globalization, these conceptualizations tend to share two qualities: mobility and mediation.

Mobility. Discourses are mobile across geopolitical and cultural borders. Thus, Rude (2009) raises the question for TPC, “What communication practices enable different cultures to work collaboratively and to understand discourse originating in one culture but used in another?” (p. 196). Similarly, discourses are mobile across author/audience identities, as well as global/local interactions.

Mediation. Discourses are mediated by places, tools, and objects. *Places* are often conceptualized as institutions. For example, TPC scholars have analyzed the discourse of Chinese call centers (Xu, Wang, Forey, & Li, 2010); nation states (McKee & Porter, 2010), including institutions of colonialism (Agboka, 2013), and human rights bodies (Ding & Savage, 2013). *Tools* are generally electronic, such as computers (Zhou, 2010). *Objects* are richly varied, but may include particular disciplines (Mehypooya & Nowroozzadeh, 2013), hidden power relations (McKenna & Graham, 2000) or globalization itself (McKenna & Graham, 2000; Starke-Meyerring, 2005).

Globalization discourses vary in their semantic foci. At one “macro” pole are discursive *themes*, and Starke-Meyerring (2005), again, details four: First, digital networks as facilitating labor divisions and transnational business practices. Second, transnational business practices increasing professional interaction, “making the workforce more mobile, accessible, and diverse, resulting in pluralized identities and blurred cultural boundaries” (p. 474). Third, TNCs fostering new relationships and interactions between local and global discourses. Fourth, ideological contestation of transnational practices, making “critical literacies” urgent for TPC programs. These themes derived from a literature review of globalization literature.

At a “micro” pole are argumentative and stylistic *techniques*. For instance, McKenna and Graham (2002) analyze what they understand as globalization’s “technocratic discourse.” The purpose of this discourse, they claim, is to “advocate and promulgate a highly contentious political and economic agenda under the guise of scientific objectivity and political impartiality” (p. 223). That guise occurs through abstractions (globalization, efficiency, national interest), circular argumentation, intentional obfuscation, quasi-religiosity, limited uses of verbs, process metaphors, plural nominalizations, apparent objectivity, and the relative absence of agency.

Rhetorics. Rhetorics appear in three main forms in TPC’s understandings of globalization: *features* (Palmer, 2013; Spyridakis & Fukuoka, 2002), *practices* or *strategies* (Ding, 2013; Flammia, 2007; Frost, 2013; Rude, 2009), and *ideological difference* (Carnegie & Abell, 2009; Collier, 2005; Gross & Gurak, 2005; Southard, 2002; Sousa, 2007; Thatcher, 2006). Some authors refer to globalization’s effects on

rhetoric, such as the growth of rhetoric of science and technology (Gross & Gurak, 2005; Harris, 2005) or the globalization of rhetoric itself (Collier, 2005; Southard & Bates, 2006c). More common, however, are references to rhetoric's effects on globalization. There are three such effects, in particular: indexing, facilitating, and constructing.

Indexing. Rhetorics index, or “point to,” various characteristics of globalization. For instance, rhetorics can highlight how different cultural groups vary in their language preferences and standards of document quality (Bokor, 2011). They can also illustrate how language practices, such as the writing of claim letters, are converging across the world (Wang, 2010).

Facilitating. Rhetorics are seldom mentioned in technology and development scholarship. Yet, under globalization, rhetorics are “highly relevant” in facilitating the transfer of social goods (Walton, 2013, p. 89). Thatcher (2006), for example, analyzed the rhetorical strategies used to translate U.S. technologies, as well as supporting documentation, in northern Mexico.

Constructing. Rhetorics can construct various material or conceptual forms as well. As one example, certain rhetorics construct race in a way that “seeks to erase diversity in ethnicity, including the ethnicity of European Americans here in the United States” (Haas, 2012, p. 292). Rhetorics also serve to construct risk across global socio-political contexts (Ding, 2013; Frost, 2013).

Languages. Language is the preeminent system for symbolical meaning in TPC's understandings of globalization. The globalization data contains one reference to “visual language” (Zender, 2006), one to extensible markup language, or XML (Staples, 2003),

and another to “the language of architecture” (Carnegie & Abell, 2009, p. 250). Besides these exceptions, language as a category refers to natural languages, along with the preferences and expectations associated with them.

Language types

TPC has recognized such language types of Greeklish, Japanese, Cantonese, and Spanish in its conceptualizations of globalization (Zhou, 2010). However, these conceptualizations are dominated by only two language types: English and Chinese.

English. English is understood in three intersecting ways: dominance, plurality, and lingua franca.

Dominance. In TPC, English dominance may result from several sources. At one pole are globalization’s capital and labor structures (Cardon, 2008; Lantz-Jones, 2010). These structures are at points understood as *hegemony* and *linguicism*, new forms of colonial relations (e.g., Mehrpooyha & Nowroozadeh, 2013). Zhou (2010) accordingly writes of “the English-dominated world” (p. 251).

At another, related pole is *status*. English has, in many parts of the world, lost its foreignness (Louhiala-Salminen and Kankaanranta, 2011), becoming associated with modernity and functionality.

Plurality. English plurality recognizes numerous Englishes under globalization. For example, Palmer (2013) mentioned “varieties of English” (p. 381), “many Englishes” (p. 383), or “English(es) in the contact zone” (p. 397). This plurality can create a host of “linguacultural and rhetorical problems” (Bokor, 2011, p. 211), such as miscommunication (Lantz-Jones, 2010). However, English plurality can also encourage

new forms of multilingualism that encourage less prescriptivism and greater hybridity (Palmer, 2013). An early example involves a phrase on Timothy Weiss' (1992) Nike Aqua Socks: *fabrique en USA*. *Fabrique en* is French, but the writer chose the English *USA* to the French equivalent *Etats Unis (EU)*. Such forms are not necessarily English language dominance, and neither are they always lingua francas.

Lingua franca. English as a lingua franca (ELF) is preeminent in TPC's understandings of globalization. By definition, a lingua franca is "used as a contact language between speakers of other languages" (Palmer, 2013, p. 388), and ELF is on the rise (Louhiala-Salminen & Kankaanranta, 2011). The extent and implications of this rise differ on several scales, however. One scale is *normative*, or the strength of ELF norms and standards. At one pole, ELF "is a necessity" (Ngai & Singh, 2014, p. 385). At the opposite pole, ELF is merely "adopted," but increasingly so (Cardon, 2008, p. 422).

Another scale is *distributive*. At one pole is English as a global lingua franca (Bielsa, as quoted in Mehrpooya & Nowroozzadeh, 2013). At the other pole is English as a disciplinary lingua franca. The most common disciplines for ELF include business (Cardon, 2008; Lantz-Jones, 2010; Ngai & Singh, 2014; Xu, Wang, Forey, & Li, 2010), higher education (Annous & Nicolas, 2014), and technology (Mehrpooya & Nowroozzadeh, 2013; Zhou, 2010).

A third scale is *communicative* and pertains to levels of orality/literacy. For instance, ISO requirements may impose U.S. or European rhetorical traditions, including written ELF, on "cultures that more comfortably work with more oral traditions" (Thatcher, 2006, p. 403). This scale also includes levels of metaphor. In computer science

ELF, for example, there is a documented rift between metaphoric potentials and metaphoric uses (Mehrpooya & Nowroozadeh, 2013). In this way, language types are closely connected to language preferences and expectations.

Chinese. After English, Chinese is the second most significant language in TPC's understandings of globalization. One reason is geopolitical, as U.S.-China trade has swelled for years (see Barnum et al., 2001). Another reason is sociocultural, as "the Chinese think they can see their future in America" (Zachry, 2007, p. 471). Thus, Chinese is often understood in relation to English, particularly American English. However, Chinese is also understood as a regional language franca, as well as a source of national identity and pride.

Regional lingua franca. Chinese has established itself as a regional lingua franca (Ngai & Singh, 2014), including online (Zhou, 2010). Because of regional exchanges under globalization, these lingua francas are significant. Yet, Chinese is also significant in globalization histories. Sinclair and Blachford (2015), as an example, analyzed a Chinese business language textbook for English speakers—*Guide to Kuan Hua*. Their analysis showed that "globalization" phenomena were already well underway in the 1880's, when the textbook was first published. The authors then asserted that "the role played by Chinese-language communication in the globalization of the world's economy is a topic that is just beginning to be explored" (Sinclair & Blachford, 2015, p. 424).

Source of national identity and pride. Chinese is also understood as a source of national identity and pride. As such, Chinese may be intertwined with China's economic

and political status (Ngai and Singh, 2014). TPC seldom recognizes Chinese dialects besides Mandarin, China's national language (see Zhou, 2010).

Language contact

Language contact relates to how globalization has impacted spoken and written codes. At one pole is the valorization of hybridity, especially that which results from English plurality (Palmer, 2013). At another pole is concern over language homogenization and elimination, effected by "culture-destructive forces of globalization" (Winkler, 2009, p. 426).

Ideologies

This category is especially significant in TPC, as ideological contestation is thought to characterize globalization (see Starke-Meyerring, 2005). In a fundamental sense, ideologies refer to configurations of knowledge claims and value commitments. The TPC data on globalization general orients these configurations around an epistemic object, such as the following.

Epistemological. Epistemological ideologies pertain to knowledge. At one pole is social production, with writing mediating "knowledge, values, and action" (Rude, 2009, p. 194). At another pole is philosophical traditionalism, including rationality and objectivity (McKenna & Graham, 2000), subjectivism (Hunsinger, 2006), and holism (St. Amant, 2003).

Epistemological ideologies are also conceptualized on finer scales. Specifically, knowledge is distinguished from other noetic phenomena, such as thoughts (Wang, 2008), imagination (Hunsinger, 2006), and ideas (Starke-Meyerring, 2005; Wilson,

2001). In addition, such terms as “understanding” (e.g., Palmer, 2014, p. 139) and “perspective” (e.g., Craig, Poe, & Gonzalez Rojas, 2010, p. 277) suggest a range of subjectivities.

Cultural. Cultural ideologies pertain to people. Given this broad remit, cultural ideologies can be understood as ontological and ethical.

Ontological. Ontological ideologies pertain to ways of being, including relations with the self and with others. Perhaps the most common ontological discourse is cosmopolitanism, discussed in depth by Palmer (2013). However, TPC scholars have also addressed race and racism (Choudry, 2010; Haas, 2012), otherness (St. Amant, 2004), managers and workers (Guiniven, 2001), audience-function relationships (van der Geest & Spyridakis, 2000) and sexuality (Agboka, 2013b).

Ethical. Ethical discourses pertain to specific ethical codes. Thus, ethical ideologies may encompass ethics in general (Salvo, 2002; Veltsos, 2006), research ethics (McKee & Porter, 2010), Confucian ethics (Wiles, 2003 quoting Dragga), sexual values (Ding & Savage, 2013), universal values (Agboka, 2013), privacy rights (Redish, 2004; Semonian, 2001), human rights (Ding & Savage, 2013; Savage, Sapp, & Mattson, 2015), social justice (Agboka, 2013a,b; Ding & Savage, 2013), the greater good (Starke-Meyerring, Duin, & Palvetzian, 2007), trust (Redish, 2004), mutual benefit (Starke-Meyerring, Duin, & Palvetzian, 2007), and equality (Choudry, 2010). Although these ethical discourses have shaped TPC’s understandings of globalization, few besides McKee and Porter have focused on ethics in particular.

Territorial. Territorial ideologies pertain to places, tending towards the geopolitical. As an example, Choudry (2010) describes ideological tensions between anti-Americanism and U.S. supremacy, as well as what he variously terms imperialism, colonialism, and jingoism. Beyond the United States, territorial ideologies might capture “regions where democratization is new, fragile, and even alien to the culture,” such as post-Soviet republics (Harootunian, 2007, p. 91).

Financial. Financial ideologies pertain primarily to economic integration and anti-capitalism. At one pole are financial ideologies that limn economic integration as inevitable, the natural evolution of market (Amidon & Blythe, 2008; McKenna & Graham, 2000). At another pole are financial ideologies that contest these conditions, favoring greater individual participation and social justice (Agboka, 2013a,b; Choudry, 2010).

The most significant financial ideology in TPC’s understandings of globalization is *neoliberalism*. According to Bourdieu, neoliberalism constitutes an “immense” political project with two major outcomes: first, high mobility of capital, benefiting stockholders and TNCs; and second, “severing the economy from social realities” (as quoted in Starke-Meyerring, 2005, p. 485).

The practices that undergird this financial ideology are often obscured. Some authors refer to “market forces” (St. Amant, 2002, p. 296), and others to the “Holy Trinity” of information technology, free trade, and finance (McKenna & Graham, 2000, p. 228). As McKenna and Graham explain, the neoliberalism’s Holy Trinity is ideologically circular: “(1) information technology facilitates global free trade, or

globalization; (2) which in turn promotes economic growth in the financial sector; (3) which in turn requires deregulation; (4) which in turn promotes the more fruitful use of information technology, and so we return to (1)” (p. 228).

Affect

TPC’s understandings of globalization include a range of affect. Yet, the affect associated with globalization tends towards polarity. At one pole is hope for a better future (St. Amant, 2005), enthusiasm (Wiles, 2003), and related optimism. At the counterbalancing pole is anxiety (Maylath et al., 2013), alarm (Ballentine, 2008), stress (Primm, 2005), as well as pain and regret. For instance, Matthew (2005) related the following:

The stories of migration are not easily told. Full of pain and regret... [t]he more such stories I hear, the more strikingly they seem to contradict the conventional wisdom that globalization has made the world smaller. The world is allegedly easier to traverse than it used to be, and staying in touch across great distances is supposed to have become simple. But how does a family that is divided between at least two continents, with little or no prospect of reuniting with any regularity, reflect a smaller world? . . . In the age of globalization, the world is indeed becoming smaller and easier to traverse—for capital and for those who manage and represent its interests. But for those who labor, the nation and its borders have thicker walls. To them, national boundaries sometimes seem as formidable and

impenetrable as the barbed wire surrounding a prison. (p. 146, as quoted in Choudry, pp. 392-393)

Negative affect associated with globalization cuts deeper still, as TPC authors mention anti-Westernism and anti-Americanism (Sinno, 2008, as quoted in Nickerson & Camiciottoli, 2013), even terror (Hayhoe, 2006).

Identity

Identity is important but fraught in TPC's understandings of globalization, for "All human activities have a universal core of identity" (Goby, 2007, p. 427). What comprises that universal core—and whether that core truly is universal—varies in the globalization data. Yet, identity can be conceptualized in three primary ways: identity-cum-place, identity-cum-text, and identity-cum-text and -place.

Identity-cum-place. Globalization has complicated the relationship between identity and place. At one pole, identity is linked only loosely to place, such as homelands and countries of residence (Sapienza, 2001), or labor structures (Amidon & Blythe, 2008). As Sapienza noted, communities have become increasingly diasporic, and identity has subsequently unmoored from habitation and aboriginality.

At another pole, places constitute identities themselves. The new Seattle Public Library, for instance, hybridized competing narratives in its material construction to "establish its identity as a legitimizer and purveyor of knowledge in the information age" (Carnegie & Abell, 2009, p. 242). The original, neoclassical design emphasized "symmetry, linearity, whiteness, and ornamentation" (p. 251), meant to communicate civic identity. In contrast, the revised, postmodern design emphasizes "asymmetry,

nonlinearity, polychromy, and abstraction” (p. 251), meant to communicate hybrid, discursive identities.

Identity-cum-text. Identity-cum text closely links identity with globalization. In particular, cultural identity can be understood as “intertextual connections” that circulate globally. As Hunsinger (2006) specifies, the concept “intertextual” refers to more than cultural heterogeneity and hybridity. It refers to “extracultural” textualities that include economics, politics, technology, and especially imagination (cf. Scott & Longo, 2006). Imagination therefore becomes “a form of cultural work, a field of negotiation between local experience and dynamic global influences” (Hunsinger, 2006, p. 39). By implication, the cultural work of imagination, and the power flows it intermediates, may be embodied in TPC (Scott & Longo, 2006).

Identity-cum-text and -place. As with other categories, identity-cum-place and identity-cum-text intersect. A study of communication managers, for instance, found that their identities derived from both “the structure of the organizations in which they worked and by their use of genres, technologies, and regulatory techniques” (Amidon & Blythe, 2008, p. 5). The latter provided text, and the former, place.

An important form of this identity-cum-text and -place is *citizenship*. In a broad sense, citizenship may divide into public life and professional life (Starke-Meyerring, Duin, & Palvetzian, 2007), and this division operates on numerous scales. On smaller scales, TPC professionals function as citizens both in their local communities and in their places of employment, including TNCs. On larger scales, TNCs and other labor structures have increasingly integrated global corporate citizenship as part of their

missions³. Such “new” forms of citizenship, often enacted through global networks, “includes an understanding of emerging global governance and civil society institutions and their local-global interplay” (Starke-Meyerring, Duin, & Palvetzian, 2007, p. 145). Beyond these divisionary scales, though, citizenship in TPC’s understandings of globalization has been conceptualized in two ways: rights and regulations.

Citizenship as rights. Globalization has intensified foci on citizenship as rights. TPC scholars do mention creative rights (St. Amant & Rife, 2010), patent rights (Verzella, 2013), privacy rights (Semonian, 2001; St. Amant & Rife, 2010), labor rights (Starke-Meyerring, Duin, & Palvetzian, 2007), and “positive” and “negative” rights more generally (Carney, 2010). The greatest emphasis is on human rights, the result of identity conceptualizations transcending geopolitical territories (Palmer, 2013). However, scholars diverge on the material effects. At one pole are claims that “we cannot pretend that human rights has no significance... especially where it concerns developing nations and marginalized populations” (Sapp, Savage, & Mattson, 2013, p. 1). At another pole are claims that “It is not clear how the spread of human rights institutions and discourses is reshaping [global] in inequalities” (Merry, 2006, as quoted in Ding & Savage, 2013, p. 6).

Citizenship as regulations. Citizenship as rights is in tension with citizenship as regulations. For instance, St. Amant (2009) writes that governments may “actively monitor the online information their citizens’ access or prevent citizens from accessing

³ Conceptual and statistical content diverge on this claim. Although many TNCs profess their commitment to corporate social responsibility, such as the Global Compact Ten Principles, “42.8% of firms do not seem to address human rights at all” (Preus & Brown, 2012, p. 297, as quoted in Sapp, Savage, & Mattson, 2013).

certain internet-based materials” (p. 413). Similarly, governments may regulate what kinds of information may be shared freely online. In this sense, citizenship as regulations is closely related to laws and access, especially with respect to technology.

Unfortunately, TPC’s understandings of globalization offer little more detail on this category.

Practice

The third core category of TPC’s understandings of globalization is practice. More varied than the previous two, this core category maps onto six categories: geopolitics, economics, business and labor, technology, socioculture, communication, and education.

Geopolitics

Geopolitical practices pertain to politics and geography. In a broad sense, these practices are understood as power operations, such as resource allocations (Agboka, 2013; Choudry, 2010) and knowledge production (Hunsinger, 2006). In a narrow sense, these practices are understood as either governance or laws and policies. The former is more organizational than textual, and the latter more textual than organizational.

Governance. Governance is conceptualized as two poles, one of which is *supra-political*. Supra-political governance centers on stakeholder tensions in the emergent global order: between the public, global civil society institutions, and TNCs (Starke-Meyerring, 2005; Starke-Meyerring, Duin, & Palvetzian, 2007). TNCs are thought particularly powerful because of their economic resources (Starke-Meyerring, 2005) and resistance to large-scale regulation (Sapp, Savage, & Mattson, 2013).

The other pole is *sub-political*, which centers on “politics outside and beyond the representative institutions of the political systems of nation states” (Ding, 2013, p. 134). Sub-political practices may therefore include anti-globalization movements (Choudry, 2010; Hayhoe, 2006), environmental activism (Killingsworth, 2005, p. 370), humanitarian efforts, (Matveeva, 2011), or terrorism (Killingsworth, 2005). Sub-political practices tend to oppose institutionalized political practices, such as those codified into laws and policies.

Laws and policies. Globalization impacts laws and policies on global, regional, and national scales (Starke-Meyerring, 2005). For instance, policymakers from the Queensland State Government to the International Monetary Fund have cited globalization as a rationale for significant reforms (McKenna & Graham, 2000). With these scales, TPC’s understandings of globalization tend to emphasize three areas that intersect with geopolitics: economics, information, and privacy.

Global. Global laws and policies, such as GATS, are economic. GATS has proven controversial, however, and TPC’s conceptualizations of its have varied. At one pole, GATS is thought to over-emphasize trade liberalization while over-defining trade barriers (Starke-Meyerring, Duin, & Palvetzian, 2007). At another pole, GATS is thought to institute an economic and geopolitical flattening (see Ballentine, 2008).

Regional. Regional laws and policies are also economic. For instance, the North American Free Trade Agreement has fostered business globalization and technological diffusion. As a result, Mexican business documentation has altered. Tebeaux (1999) noted in some of these documents “lists rather than linear paragraphs, bullets rather than

hyphens, and concise sentences and paragraphs, as well as the increased attention to document design and use of headings” (p. 77).

Regional laws and policies are understood as scholarly as well. One example is the Bologna Process. Among its 49 signatories, these policies have encouraged English as a scholarly lingua franca and fostered collaboration among academic institutions (Annous & Nicolas, 2014). Another is the Sorbonne Joint Declaration (Martinez, 2015), which established the basis for the Bologna Process.

National. On national scales, TPC emphasizes copyrights and privacy laws.

Copyrights pertain to the ownership and sharing of information. Since cultural standards vary, copyrights can restrict the flow of information across borders or, in some cases, dictate the language to be used (St. Amant & Rife, 2010).

Privacy laws pertain to “who legally owns and can use an individual’s personal information” (St. Amant & Rife, 2010, p. 249). As with copyright laws, privacy laws vary culturally and geopolitically. The United States has in consequence developed the Safe Harbor Privacy Principles, which protect personal data from European countries. At one pole, such laws are conceptualized as “blended policy environments” (Craig, Poe, & Gonzalez Rojas, 2010, p. 268). At another pole, as friction points (St. Amant & Rife, 2010).

Economics

In TPC’s understandings of globalization, economics, as a practice, tends to obscure human agency. Yet, though almost absent human agents, the categories include dispersion, liberalization and deregulation, privatization, and dominance and subjugation.

Dispersion. Dispersion can pertain to economic production or allocation. Though under-specified, *production* is suggested in such terms as “dispersed economic activities” (Denstadli, Julsrud, & Hjorthol, 2012, p. 66). These activities, or practices, produce economic values through spatial distribution.

Allocation is comparative and geopolitical. As Du-Babcock and Bhatia (2013) noted, much future economic growth will likely occur in East Asia, shifting power allocations away from Europe and the United States. So too with the Arab world, which has become “a critical player” in global economic practices (Du-Babcock & Bhatia, 2013, p. 239).

Liberalization and Deregulation. Liberalization and deregulation, used interchangeably, refer to loosened government restrictions on trade (see McKenna & Graham, 2000; Starke-Meyerring, 2005). These economic practices center on trade barriers, or any government regulation that restricts market access (Starke-Meyerring, Duin, & Palvetzian, 2007). Thus, trade barriers may range from government subsidies to import quotas or tariffs. In this way, liberalization and deregulation are in tension with local geopolitical sovereignty.

Privatization. Privatization is conceptualized as related closely to commoditization. In the “third world,” for instance, the commoditization of biodiversity has coincided with the privatization of water. The result has been increased alienation and poverty (Choudry, 2010, pp. 394-395).

Dominance and Subjugation. Economic dominance and subjugation are thought to assume numerous forms under globalization. One form centers on nation-states. As an

example, Boron asserts that Latin America for years has experienced economic, political, and military subjugation to the United States (as quoted in Choudry, 2010). Another form centers on TNCs. Because of their resources, TNCs may constitute a “decentered, deterritorialized transnational elite” that dominates its own empires (Choudry, 2010, p. 383; cf. Agboka, 2013a; Savage & Mattson, 2011). Hence, economic narratives may legitimate global corporate rule as organic or evolutionary (Choudry, 2010), or even universal (Starke-Meyerring, 2005).

Business and Labor

In TPC’s understandings of globalization, business and labor practices are diverse. These practices include management, marketing, decision making, product design and creation, as well as specific strategies and tactics such as partnering, modularization, and bureaucratic reorganization. Only a few categories are emphasized, however: competition, collaboration, exploitation, and distributed work.

Competition. Competition has long characterized business globalization. In fact, Levitt (1983) claimed that “companies must learn to operate as if the world were one large market—ignoring superficial regional and national differences to survive in the competitive environments” (p. 92, as quoted in Wang & Baake, 2006; cf. Salvo, 2001). As China, South America, and Africa continue to develop, competition may heighten further (Hayhoe, 2006).

Labor structures thus require flexibility. Specifically, they may need to strengthen their customer service (Jeffers & Joseph, 2010), expand operations beyond their national borders (Saatci, 2008), classify numerous jobs as fungible (Guiniven, 2001), and

increasingly automate (Primm, 2005). Virtual teaming may subsequently become critical for company survival (Southard, 2002; cf. Guo et al., 2009).

Collaboration. Collaboration, including outsourcing, has heightened under globalization, and this for two reasons. First, communications technologies have made multiple forms of collaboration possible (Angouri & Harwood, 2008). Second, task complexity—and the required expertise—are increasing across labor structures, and organizations are consequently forming around teams (Angouri & Harwood, 2008), including cross functional project teams (Amidon & Blythe, 2008) and global virtual teams (see Schnackenberg, 2009). Such collaboration often facilitates product and service distribution, intellectual exchanges, and humanitarian projects (Matveeva, 2011).

Exploitation. Business and labor practices are prone to exploitation, which takes various forms—and which may define globalization (St. Amant, 2005). Three of these forms are resource, value, and symbolic exploitation.

Resource exploitation. Resource exploitation pertains to natural resources, such as oil (Zachry, 2007); legal resources, such as patents (Verzella, 2013) and clinical trial regulations (Batova, 2010); or economic resources, such as consumer populations (Dayton & Bernhardt, 2004). TPC professionals should be wary of “consumerizing the entire world” (Dayton & Bernhardt, 2004, p. 40).

Value exploitation. Value exploitation, in one form, is both labor-related and cultural. For instance, Andrew Feenberg suggests that Confucian traditions in Vietnam may enable TNCs to exploit local workers. He claims that “it is not slavery, at least not

usually” (as quoted in Zachry, 2007, p. 471); however, transitions to industrial labor may, in turn, homogenize the workers’ values to something more “Western” (p. 471).

A second form of value exploitation relates to economic values more than cultural ones. In some understandings, free market policies push the poor into exploitation as migrant workers. Because they are devalued through globalization, they can remain disenfranchised indefinitely (Choudry, 2010).

Symbolic exploitation. Symbolic exploitation pertains to images and space, and such exploitation potentially occurred in the Seattle Public Library. The “Boeing room,” for example, could be construed as “corporate exploitation of civic space” (Carnegie & Abell, 2009, p. 251).

These interconnected forms of exploitation occur on numerous scales, as suggested already. At one extreme is the exploitation of individuals, such as women and children. At the other extreme, entire countries (Veltsos, 2009). The scale notwithstanding, however, exploitation is often rationalized, such as through static models of culture (Ding & Savage, 2013).

Distributed work. All work practices involve spatial or temporal dispersal. However, the dispersal is more extreme in distributed work, “in which more and more of us work not in isolation, but in team with colleagues across the country and around the globe” (Paretti, McNair, & Holloway-Attaway, 2007, p. 328). With distributed work now conceptualized as “essential” (Denstadli, Julsrud, & Hjorthol, 2012, p. 66), TPC scholars have suggested its causes, challenges, and forms.

Causes. The causes of distributed work are technological diffusion, access, and popularity.

Technological diffusion. One cause of distributed work is technological diffusion, and specifically information and communications technology. The material forms are generally vague. Instead of specifics, TPC scholars prefer such terms as “computer tools” (Zhou, 2005, p. 147), “online collaboration tools” (Giordano & George, 2013, p. 210), “the internet and telecommunications” (Guo et al., 2009, p. 1), or “electronic communication and new technologies” (Matveeva, 2011, p. 408).

Access. A second, related cause of distributed work is access. On one level, access pertains to technological materiality. On broader levels, however, it pertains to opportunities and information (Matveeva, 2011, p. 406). Perhaps problematically, TPC conceptualizations of globalization emphasize “global networks” (see Starke-Meyerring, 2005, p. 469), which may obscure friction points (St. Amant & Rife, 2010) or other access constraints.

Popularity. A third cause of distributed work is *popularity*. At one pole, popularity is *utilitarian*. For instance, the International Data Corporation reported that, from 2005 to 2007, the number of workers using public instant messaging (IM) was projected to grow considerably: from 255 million to 359 million (quoted in Zhou, 2005). The reasoning was that, in addition to diffusion and access, IM “was useful for coordination and organization” (Zhou, 2005, p. 147). At another pole, popularity is *affective*, ranging from acceptance to awe (see Ballentine, 2008).

Challenges. Granted, distributed work is thought to foster more collaborative environments online (Palmer, 2013). It is also thought to enhance “competitive flexibility,” allowing labor structures to transcend traditional constraints of location, time, social networks, and company boundaries (Guo et al., 2009, p. 1). However, TPC’s understandings of globalization emphasize distributed work’s challenges. These challenges pertain primarily to material conditions (see Starke-Meyerring, 2005): policy, cultural and organizational, and technological, which conceptually intersect.

Policy conditions. Distributed work often occurs in blended policy environments globally, regionally, and locally. As policy embodies ideology, distributed workers may face “highly contested ideological agendas” or “ideologically charged discourses” in their work/places (Starke-Meyerring, 2005, p. 469).

Cultural and organizational conditions. Distributed work crosses cultural and organizational borders. Complicating matters further, “rather than being stable, long-term collaborations, these teams are often flexible communities of practice, formed in response to specific needs and dissolved once the goals have been achieved” (Paretti, McNair, & Holloway-Attaway, 2007, p. 328). Thus, team members may need to continually adapt to new colleagues and organizational structures (Paretti, McNair, & Holloway-Attaway, 2007), which may not share a common cultural context (Starke-Meyerring, Duin, & Palvetzian, 2007).

Technological conditions. At one pole, distributed work may include resource constrained environments, where technological materiality is limited (Walton, Zraly, & Mugengana, 2015). At another pole, distributed work may be entirely virtual, which

raises additional challenges. One such challenge is media “leanness” compared to communication face to face (Guo et al., 2009, p. 1). This leanness may add “layers of invisibility” (Zachry, 2007, p. 452) to work processes and outcomes, increasing the risk for deception (Giordano & George, 2013, p. 210).

These and related challenges increase the complexity of distributed work. Subsequently, “the composing and information design process [have] bec[o]me more and more sophisticated” (Palmer, 2013, p. 393).

Forms. A common form of distributed work is offshoring, which has occurred for, at minimum, the last two hundred years. Enabled by globalization and computerization, the practice has become especially prevalent in India. There, local workers receive “all sorts of work, from hedge-fund administration to pre-press digital publishing” (Wang & Baake, 2006, p. 429). In a broad sense, then, offshoring can be understood as white collar and blue collar work.

White collar. Offshored white collar work has become “an irreversible megatrend” (Wang & Baake, 2006, p. 429), including *clinical trials*. Because of offshored clinical trials, international health organizations have more carefully standardized regulations and guidelines. Yet as Batova (2010) observed, challenges remain. One challenge is that, in underdeveloped countries, the concept of clinical trials is still new. A second challenge is that these countries may lack sufficient legal infrastructure, leaving their research subjects vulnerable for exploitation. In addition to clinical trials, offshored white collar work includes research and development more generally, customer support, business and financial services—and TPC (see Giammona, 2004).

Blue collar. Some conceptualizations depict blue collar offshoring as largely passé (see Wang & Baake, 2006). However, offshored blue collar work may still be prevalent, only hidden or removed. According to one scholar:

The single biggest thing that is happening is simply the export of all those deskilled jobs... to poor countries. This is an enormous phenomenon.

When people talk about postindustrial society, the information age, they are naïve because there is just as much manufacturing; it just isn't in

Detroit any more. In fact, there is more of it (Zachry, 2007, p. 470).

Of course, blue collar work is not necessarily deskilled, yet TPC can offer little conceptual elaboration on these offshoring practices.

Technology

TPC has conceptualized technology primarily as materiality rather than practices. Yet, there are four key categories, all conceptually underdeveloped: automation, facilitation, access, and mobility.

Automation. Automation is understood as a key driver in business globalization. As production processes automate, companies can enhance their competitiveness (Primm, 2005).

Facilitation. Technology practices, especially those connected with ICTs, have facilitated new trends in work organization (Amidon & Blythe, 2008), financial growth and free trade (McKenna & Graham, 2000), interdisciplinary learning and research (Starke-Meyerring, Duin, & Palvetzian, 2008), and globalization itself (Starke-Meyerring, 2005).

Access. Access is mediated by monitoring and filtering practices, which vary geopolitically (St. Amant, 2009). Extreme disparities in access cause digital divergence, or the concept more common, digital divide (Chong, 2012).

Mobility. Mobility is thought a distinguishing characteristic of globalization. In TPC's understandings, mobility pertains primarily to technology, people, and ideas.

Technology mobility. Technology mobility has two senses: first, technology as a facilitator of mobility; and second, technology as increasingly mobile itself. Capital⁴ is one technology that has become increasingly mobile under globalization (Starke-Meyerring, 2005). So too have mobile phones and other handheld devices (Andersen, 2011; Sousa, 2007), even in resource constrained regions. Another mobile technology of significance is texts or (inter)textualities, which may serve to construct cultural identity (Hunsinger, 2006).

People mobility. People mobility may relate to individuals or entire communities.

Individuals. Individual mobility has in particular impacted higher education. In the United States, international student enrollments have increased (Roberts & Tuleja, 2008). Instructors and researchers commonly participate in faculty exchanges abroad (Dauterman, 2005). In addition, Peace Corps volunteers were thought to be "changing the face of service in the developing economies of Eastern Europe, Central and South America, and elsewhere" (Dauterman, 2005, p. 141).

Individual mobility is not always positive. Some individuals become mobile by choice, and others by chance (Jablonski, 2005, pg.), such as blue collar migrant workers.

⁴ Appadurai (1996) recognizes capital mobility ("financescapes") as distinct from technology mobility ("technoscapes"). Yet TPC's understandings of globalization seem to blur this distinction. Thus, I have chosen, albeit tentatively, to include capital as a form of technology.

These workers may face exploitation and precariousness, disenfranchisement and devaluation because of capitalist globalization (Choudry, 2010).

Communities. Mobile communities, such as transnational connectivities (Ding, 2013), are diasporic (Sapienza, 2001). These communities may organize by culture or geopolitics, as with Russian expatriates on the internet (Sapienza, 2001). Mobile communities might instead organize by interest, “operating from ‘below’” and “mobilizing highly specific local, national, and regional groups on matters of equity, access, justice, and redistribution” (Appadurai, 2000, p. 15 as quoted in Frost, 2013, p. 57).

Idea mobility. Idea mobility often results from the people and technologies mobilities. These ideas may impact education, causing instructors to rethink their programs and courses (Starke-Meyerring, 2010). They might also impact religious materiality and practices. Scholars have subsequently conceptualized “sacriscapes,” or the “flows of sacred values, which, with the rise of various forms of fundamentalism throughout the world, have grown to be important to much cultural interaction” (Hunsinger, 2006, p. 40).

Socioculture

In TPC’s understandings of globalization, socioculture practices co-occur. One subcategory of these practices is similar/different, and another is inclusive/exclusive. Because of the resultant complexity, Figure 4 provides a rough illustration.

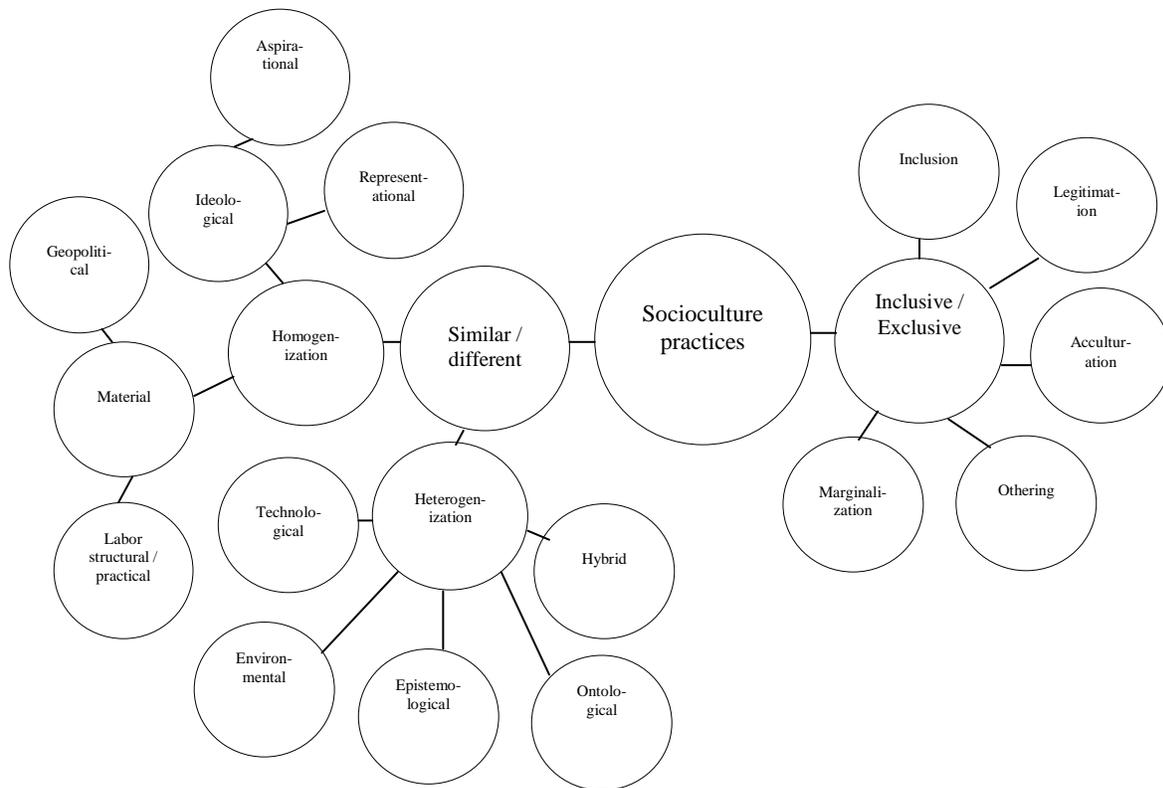


Figure 4: Socioculture practices and their subcategories.

Similar/Different. Similar/different relates in particular to homogenization and heterogenization.

Homogenization. Homogenization as a cultural practice describes the creation of “one culture” (Martinez, 2015, p. 130), or the erasure of difference (Zachry, 2007). The subcategories are ideological and material homogenization, which interconnect.

Ideological homogenization. One form of ideological homogenization is *representational*, especially with respect to culture and communication. For example,

TPC scholars might theorize relatively homogenous national audiences (Starke-Meyerring, 2005)—or international audiences (Bokor, 2011; Miles, 1997; Sapienza, 2008; Spyridakis, 2000). They might similarly assume a particularist view of culture that presumes inflexible traits (Starke-Meyerring, 2005).

In a broader sense, globalization accounts may represent deterritorialized bourgeois at the exclusion of workers, whose “lives involve intense negotiation of borders that practically incarcerate them” (Mathew, 2005, p. 165, as quoted in Choudry, 2010, p. 393). Moreover, modernist narratives of knowledge, which favor homogeneity, may be favored over postmodern ones (Carnegie & Abell, 2009).

A second form of ideological homogenization is *aspirational*, as in the *Chinese modernization report*. According to Andrew Feenberg, the report predicted that China would largely resemble the U.S. by 2014: high suburbanization, and universal access to automobiles. He claimed, “You could just see the fantasy, and you have to believe that the people who prepared the report watched a lot of American TV. They saw the future there” (as quoted in Zachry, 2007, p. 471).

Material homogenization. Homogenization can also be material, for instance from labor structures and practices. The distribution of trade products is thought to have homogenized consumer cultures around the world (Sapienza, 2008). In addition, the distribution of production processes, such as supply chaining, “makes the world more similar” (Zachry, 2007, p. 471).

Another form of material homogenization is more geopolitical. In particular, scholars have claimed “a ‘creeping Americanization of the rest of the planet” (Ballentine,

2015, p. 298), the result of U.S. cultural imperialism. The growth of McDonalds is a case in point. Although McDonalds has integrated into British landscapes and cultures, locals still identify the chain with the Americanization of the United Kingdom (Melancon, 2007; cf. Palmer, 2013, pg. 389). A second case in point is the Bologna Process.

Heterogenization. Heterogenization describes cultural blending (Martinez, 2015) and can co-occur with homogenization (Sinclair & Blachford, 2015). There are six subcategories, which all show little conceptual development: technological, environmental, epistemological, ontological, hybrid, and polar.

Technological heterogenization. One form of heterogenization is *technological*. Socioculture technological practices have become increasingly heterogeneous and complex, which inspired the development of information literacy (Sinclair & Blachford, 2015)

Environmental heterogenization. Another form of heterogenization is environmental. As Sinclair and Blachford (2015) observe, “the groups of people and cultures connecting and generating globalization are amorphous, heterogeneous, and porous” (p. 407). Yet culture practices are mediated by local constraints, such as “language, food, habitation patterns, educational institutions, attitudes toward race and honesty—resist change in general, and resist the American face of globalization especially” (Marling, 2006, p. viii, as quoted in Ballentine, 2015, p. 298).

Epistemological heterogenization. A third form of heterogenization is epistemological. Postmodern narratives of knowledge, for instance, embrace a diversity of “many different ways and forms of knowing, ‘know how,’ and their mixture”

(Carnegie & Abell, 2009, p. 256). As a result, knowledge, and especially knowledge narratives, is not denied so much as contextualized.

Ontological heterogenization. A fourth third form of heterogenization is ontological. In addition to its meaning, identity is a form of practice constructed and mobilized from extra-cultural textualities. Traditionally, however, TPC has generally understood identity as “generally self-contained, conspicuously independent of economic, political, or technological influences” (Hunsinger, 2006, p. 36).

Hybrid heterogenization. A fifth and essential form of heterogenization is *hybrid*, or more specifically *hybridization*. TPC often conceptualizes hybridization as a communication practice. However, communication and socioculture practices blur. As China increased cultural exchange with its geopolitical neighbors, different elements of Chinese society, such as karaoke bar hostesses, adopted Korean and Japanese cultural symbols. These hybridized symbols became “hybridized displays of social transformation, and are just as much constitutive parts of the identity of this new social group as the economic circumstances that created a demand for the services of these bar hostesses” (Palmer, 2013, pg. 389). Thus, hybridization may encompass technological, environmental, epistemological, or ontological forms of heterogenization.

Polar heterogenization. A sixth form of heterogenization is polar, related to cultural conflict (Martinez, 2015). Polarization is understood as an oppositional practice to hybridization. The Bologna Process exemplifies this relationship. In the EU, concerns had arisen over the potential of the Bologna Process to homogenize. The framers were

therefore careful to rhetorically “avoid polarization” while “work[ing] very hard to achieve hybridization” (Martinez, 2015, p. 131).

Inclusive/Exclusive. Inclusive/exclusive relates to inclusion, legitimation, acculturation, othering, and marginalization.

Inclusion. Inclusion operates on numerous scales. On a smaller scale, inclusion might pertain to access to technological resources, such as websites (Lin, 2002; Van der Geest & Spyridakis, 2000). On a larger scale, inclusion might be more abstract and planetary, suggested by the terms “global inclusiveness” (Canagarajah, 2006, p. 9). The conceptual content of inclusion thus relates to language practices, as well as culture, ethics, and affect (Agboka, 2013).

Legitimation. Legitimation pertains to institutional sanctions that operate narratively and materially. For instance, knowledge narratives may legitimate “global corporate rule as a somehow evolutionary, organic process supposedly driven by technological advances and human imagination rather than an imperative of corporate imperial dominance” (Choudry, 2010, p. 385). Knowledge narratives may also impress themselves upon material structures, such as public institutions and spaces, through “legitimation by paralogy” (Lyotard, 1979/1984, p. 60, as quoted in Carnegie & Abell, 2009, p. 256).⁵

⁵ Carnegie and Abell (2009) explain further that Lyotard’s paralogy “emphasizes an open array of media and information systems used in game-like processes for generating, sharing, and exchanging ideas. Lyotard believes the paralogy model of knowledge is socially pragmatic, partly because it acknowledges the “agonistic aspect of society” (p. 16).

Acculturation. Acculturation has been conceptualized as habitus, or cultural dispositions that influence appreciations, perceptions, and practices (Maton, 2008, p. 51, as quoted in Ballentine, 2015, p. 298). As a result, acculturation may encourage biculturalism, or it may default back to mono-culturalism (Ballentine, 2015). Acculturation is related closely to identity.

Othering. Othering pertains to cultural difference, relative to a complexity of language, culture, and technology practices. Standardization, for instance, can appeal to “universal human values” (Agboka, 2013a, p. 41). However, it can also “other” certain groups if those standards “do not reflect the way groups express themselves” (Agboka, 2013a, p. 41).

Marginalization. Marginalization has been conceptualized largely in terms of distribution and access. Under globalization, marginalized groups may lose more than they gain (Savage & Mattson, 2011). They might also face colonization and exploitation, including in developed nations. On a smaller scale, website language practices may “marginalized audiences unfamiliar with the language to discourage their access to these sites” (Lin, 2002, p. 40).

Communication

Communication practices are central to TPC’s understandings of globalization. On a narrow scale, these practices may be clustered as skills (Bekins & Williams, 2006; Mehrpooya & Nowroozzadeh, 2013; Saatci, 2008; Yu, 2011), competencies (Louhiala-Salminen & Kankaanranta, 2011; Xu, Wang, Forey, & Li, 2010; Wang, 2013), or literacies (Sinclair & Blachford, 2015; Starke-Meyerring, 2005)—as outcomes of

education. On a broader scale, these practices may subcategorize into macro-, meso-, and micro-practices and contextual tensions.

Macro-practices. Communication macro-practices are large scale and culturally mediated (cf. Sinclair & Blanchard, 2015). They include creolization, indigenization, and hybridization.

Creolization. Creolization is understood as a form of cosmopolitanism. This communication practice results from “increased contact with different cultural influences enabled and accelerated by globalization” (Palmer, 2013, p. 389). However, TPC’s understandings provide little additional detail.

Indigenization. Indigenization is understood as a variant of *dochakuka* (土着化), the Japanese concept that inspired R.G. Robertson’s “glocalization.” *Dochakuka* has come to mean the tailoring of the global to the local. However, it can also indicate “the simultaneous presence of homogenization and heterogenization, of universalization and particularization, in the globalization process” (Sinclair & Blachford, 2015, pp. 415-416).

Hybridization. Hybridization is perhaps the most significant communication macro-practice. An early TPC reference to globalization proposed the disciplinary metaphor of “ourselves among others,” intended to reflect hybrid cultures and hybrid communication (Weiss, 1992, p. 33). In particular, hybrid communication occurs in varying degrees, ranging from “the more widely observed phenomena” and the “local realization of it” (Palmer, 2013, p. 392) and in varying scales: local, translaocal, national, transnational, global (Palmer, 2013).

Hybrid communication results from numerous sub-practices. One of these sub-practices is *creative language use*, which language contact may encourage. Another is the adoption of *lingua francas*, such as global Business English or Mandarin Chinese. Still another is pressure from local, national, or global trends in semiotics or rhetorics, as well as technological connectivity (Palmer, 2013).

These sub-practices, all richly agentic, reflect “the hybridizing and pluralizing of individuals and societies” occurring more broadly because of globalization. They also produce “new social formations and cultural products” (Palmer, 2013, p. 388). Thus, hybridization requires a two-fold understanding in TPC: of the features of hybrid communication artifacts, and of the processes that produced them (Palmer, 2013).

Meso-practices. Communication meso-practices are disciplinary and thus specific to TPC. These practices include usability testing, risk communication, regulatory writing, medical writing, legal writing, information architecture, community informatics, and visual design, among others (see Haas, 2012). Under globalization, however, these practices are mediated by terminological tensions and translational scales.

Terminological tensions. Terminological tensions manifest themselves, in particular, through TPC’s conceptual and terminological shifts from cross-cultural (Goby, 1999; Goby, 2007; Hunsinger, 2006; Matveeva, 2011; St. Amant, 2004; Wang, 2008; Xu, 2006) to intercultural (Agboka, 2013; Ballentine, 2015; Ding, 2013; Ding & Savage, 2013; Hunsinger, 2006; Miles, 1997; Omachinski, 2013; Sapienza, 2001; Spyridakis, Driskill, & Hoft, 1998; Wang & Baake, 2006) to transcultural communication (Ding, 2013; Palmer, 2013).

Cross-cultural communication. Cross-cultural communication, assumes a relatively static and monolithic conceptualization of culture, such as Kaplan's framework for contrastive rhetoric. Such conceptualizations have weakened under globalization (Wang, 2008).

Intercultural communication. The second, intercultural communication, has been significant within TPC since the early 1990s (Cardon, 2008). These meso-practices have since increased in importance (Savage & Mattson, 2011), becoming routine for many TPC professionals (Palmer, 2014) and are perhaps "destined" to become central to TPC programs (Schnakenberg, 2009, p. 188). Intercultural communication attempts to move beyond nation-states as units of analysis, focusing instead on cross-border flows of capital, ideas, people, and technologies (Ding & Savage, 2013). However, there are conceptual limitations. Intercultural communication traditionally assumes some degree of distinctiveness between groups, requiring mediation. In addition, according to Priya Kapoor, intercultural communication fails to address the complexities of pluralized, global contexts (Sapienza, 2001).

Transcultural communication. Transcultural communication derives from Ulrich Beck and acknowledges greater complexity. As Ding (2013) deploys the term, transcultural communication—and specifically transcultural risk communication—refers to the "multilevel, multidirectional risk communication process among national, institutional, professional, communal, and virtual key players via a wide range of media platforms" (p. 129). Thus, transcultural communication can account for greater hybridization under globalization than can intercultural or cross-cultural communication.

Translational scales. Translational scales indicate meso-communication practices' contextual sensitivity, especially with respect to language and content. The least sensitive of these practices is standardization. The most, localization.

Standardization. Standardization, which occurs with intent, is marked by heterogeneity/homogeneity tensions. As Ditlevsen (2012) explained, globalization has largely standardized financial communication, and an increasing number of companies adhere to the International Financial Reporting Standards. However, compliance with these standards has not eliminated heterogeneity from annual reports. There is still significant variation at the textual level.

Translation. The significance of translation has grown exponentially under globalization. In fact, translation is now thought a "key mediator" of global communication practices (Mehrpooya & Mowroozadeh, 2013, p. 418) and company officials reportedly "plea" for TPC professionals trained in preparing documents for translation (Maylath & Thrush, p. 233, as quoted in Batova & Clark, 2014, p. 22).

Localization. Like translation, the demand for localization has increased with globalization (Batova & Clark, 2014). Unlike translation, however, localization involves more than language adaptation; localization attempts to satisfy an audience's cultural expectations. A localized text may be subsequently adjusted "to the cultural, rhetorical, educational, ethical, legal, and other characteristics of readers and the global, national, and local contexts in which they interact with texts and products" (Batova & Clark, 2014, p. 223). Interestingly, few TPC scholars besides Yu (2011) consider *globalization*, a communication meso-practice, as an alternative to localization (p. 88).

Micro-practices. Micro-practices pertain to particular TPC artifacts and hence are myriad. However, they tend to be distinguished in rhetorics or semiotics.

Rhetorics. Rhetorically, communication micro-practices can differ in say, patterns of directness and indirectness. Wang (2010) found such differences in a study of Chinese and U.S. claim letters.

Semiotics. Semiotically, communication micro-practices can differ in the modes deployed, and in particular visually. At one pole, visual language can be conceptualized as universal. At another pole, visual language, as highly specific in a cultural sense (Brumberger, 2014). The conceptualizations surrounding these practices are mostly theoretical, however, relying more heavily on prescriptions than on research and theory (Brumberger, 2014). Modes can also vary between orality and literacy (Annous & Nicolas, 2014)

Education

Education practices are a preeminent concern in TPC's understandings of globalization. There are two categories: scholarship and pedagogy.

Scholarship. To scholarship, globalization poses both theoretical and methodological challenges. These challenges complicate education practices in turn, including TPC scholarship. Thatcher (2010) critiqued cultural studies models of globalization and proposed an "etic-then-emic" research approach. Madson (2014) argued for an "emics-then-etics" counterbalance, tempering assumptions about globalization with indigenous theory, subjectivities, and data grounded in real-life encounters. The conceptual discussion of effective theory and practice remains ongoing,

encompassing specific methodologies as well. The five methodologies below⁶ do overlap, at points, but differ in conceptual focus and history.

Ethnographic. Ethnographic research comprises a “many-stranded mesh” (Madson, 2014, p. 68) in terms of methods and research purposes. One example relating to globalization is Mathew’s exploration of the New York Taxi Workers Alliance. This ethnographic study “provided a critical explanation of the inequities of the city’s tax industry linked in turn to a macro analysis of capitalist globalization, neoliberalism, and migration” (Choudry, 2010, p. 384).

Community based. Community-based research can help account for “accelerated” globalization and professional commitments to social responsibility (Walton, Zraly, & Mugengana, 2015, p. 45). These studies are intended to share power with research participants while fostering mutual respect. As a result, community-based research aligns with post-modern research purposes. However, it tends to be messy—“unpredictable, mutable, contingent, serendipitous, complex, and challenging” (Walton, Zraly, & Mugengana, 2015, p. 45).

Clinical. Clinical research is nearly absent conceptually, since few TPC authors address the globalization of medicine. One exception is Batova (2010), who addresses the boom in clinical trial offshoring.

Internet. Internet research, in addition to technological complexity, must account for cultural and legal differences. For instance, practices of surveillance, privacy,

⁶ Clearly there are more in TPC, including those specific to globalization. However, these five emerged from the grounded theory analysis.

ownership, and risk may vary across borders. Research designs must therefore be flexible, and researchers must be comfortable with uncertainty (McKee & Porter, 2010).

Pedagogical. Pedagogical research has long informed TPC's understandings of globalization (Miles, 1997). These studies have moved well beyond an early emphasis on dos and don'ts; rather, such research, in addition to globalization, often focuses on literacy, technology, and ethics (Rude, 2009, pg. 196). These areas remain productive.

Pedagogy. Pedagogy includes the subcategories of curricula, outcomes, methods, and assessment.

Curricula. Curricula pertain to TPC courses and programs. With globalization, TPC has "experienced a surge of curricular development" (Starke-Meyerring, 2010, p. 260). However, a key question is how to integrate globalization⁷, which may be full or partial, indirect or direct.

At one pole, *full* integration of globalization encompasses the entire curriculum (Starke-Meyerring, 2005). No specific examples could be identified, however. At another pole, *partial* integration of globalization is more selective and strategic. The potential introduction of TPC, and thus globalization, into China's English major serves as an example. Yu (2011) proposes three models: The first adds TPC content to existing courses in English for Specific Purposes (ESP). The second offers TPC as a separate, advanced course in ESP. The third incorporates TPC into English for General Purposes (EGP).

⁷ Starke-Meyerring (2010) goes further. She writes that TPC instructors are "realizing that simply reproducing or repackaging existing courses or that merely adding a new textbook chapter on professional communication or globalization will not suffice to prepare themselves and their students for robust participation in a globalizing field of study, higher education institution, workplace, and civic life" (p. 261).

The three models, with their focus on TPC—a predominantly North American discipline—are also an *indirect* integration of globalization. A *direct* integration is more explicit, as in the engineering communication course that Ballentine (2009) described. Students read Friedman (2005) and discussed globalization in comparison to three other themes: 1) ethics, accountability, and professionalism, 2) intellectual property, and 3) design, creativity, and invention.

Outcomes. Outcomes in education practices range from the *instrumental* to the *critical*. Instrumental outcomes might include students mastering the latest technologies, developing workplace identities, and managing communication groups effectively (see Amidon & Blythe, 2008). Critical outcomes might involve students understanding theory/practice relationships, thinking both short and long term, as critiquing available technologies (see Amidon & Blythe, 2008). One example of critical outcomes relate to “vernacular education” (Sullivan, 2009, p. 63); vernacular education “consists of passing on intergenerational knowledge through storytelling, permitting local communities to construct their own grassroots narrative and to determine what knowledge and practice they want to assimilate into their culture” (Sullivan, 2009, p. 63). Such outcomes contrast sharply with those that valorize labor market access and integration. These instrumental/critical tensions are often understood as skills and literacies.

Skills. Skills tend towards task orientation, mediated by sociopolitical pressures and notions of efficiency (Bekins & Williams, 2006). Thus, skills in TPC education practices may include teamwork, communication, creativity, problem solving, keen listening, and empathy (Dusenberry, Hutter, & Robinson, 2015). They may also include,

more critically, “individual initiative and self-reliance that challenges the routine, rule-following behavior demanded by most employers in Fordist factories and corporate bureaucracies” (Bekins & Williams, 2006, p. 288). Alternately, skills may be conceptualized as competencies, such as in global communicative competence (GCC) (Louhiala-Salminen & Kankaanranta, 2011).

Literacies. Literacies tend towards ecological orientations, with emphases on complexity, agency, and empowerment. One example is the global literacies model, which, as explained earlier, emphasizes four themes from globalization scholarship: 1) the increased interactions between local and global discourses; 2) the ideological contestation surrounding globalization; 3) the facilitation of globalization through digital networks; and 4) the resultant pluralized identities and blurred boundaries (Starke-Meyerring, 2005). Influential, this model was expanded to include “literacy as understanding place” (Sinclair & Blachford, 2015, pp. 415-417).

Methods. Methods for TPC education practices under globalization are numerous, tensing between the textual and the experiential.

Textual methods. Textual methods deliver instruction primarily through texts and textuality. These texts might include Friedman’s (2005) *The world is flat*, as in Ballentine’s (2008) engineering communications course. They might instead include Said’s *Orientalism* or Volkmer’s *The bomb under the world*, per Hunsinger’s (2006) recommendation. As a variation, textual methods can intersect with other methods, such as problem-based learning (Saatci, 2008).

Experiential methods. Experiential methods deliver instruction primarily through experience and performance. One form of these methods is global partnerships, such as the Global Classroom project, which linked U.S. students and teachers with Russian counterparts (Herrington, 2010). Another, related form is study abroad, even for only a month (Ballentine, 2015). A third form is digital ethnographic, which may be as textual as experiential depending on the assignment requirements (Madson, 2014).

Most methods in TPC education practices are likely combinatory in that manner. According to Ballentine (2015), “Students do need opportunities to explore and reflect on their own, but they should be aided by readings and writing prompts that ask them to juxtapose and synthesize their cultural experiences” (p. 302). Thus, combining textual and experiential methods may be optimal.

Assessment. The assessment of TPC education practices under globalization is conceptually sparse. Wang (2013) suggests assessments based on the Intercultural Development Inventory (IDI); and Madson (2014), on digital ethnographic results.

Hidden practices

Hidden practices are often obscured as forces (Ballentine, 2008; Choudry, 2010; Hayhoe, 2006; McKenna & Graham, 2000; Starke-Meyerring, 2005; Palmer, 2013; Wang & Bakke, 2006; Zachry, 2007) and phenomena (Agboka, 2013b; Ballentine, 2007; Choudry, 2010; Ding, 2013; Gallivan, 2001; Hayhoe, 2006; Gygi & Zachry, 2010; Harootunian, 2007; McKenna & Graham, 2000; Padmanabhan, 2007; Palmer, 2013; St. Amant, 2002; St. Amant, 2005; Wang, 2008)—a feature of technocratic discourse

(McKenna & Graham, 2000). These conceptualizations of hidden practices can be understood as existential, theoretical, and/or political.

Existential. Some scholars acknowledge that, with hidden practices, “their very existence may be a matter for debate” (McKenna & Graham, 2000, p. 233). That is, hidden practices might not in reality exist.

Theoretical. Others attribute hidden practices to theoretical imprecision. That imprecision may stem from globalization’s blurring of traditional categories (Palmer, 2013). It may also stem from equivocation. In their discursive analysis, McKenna and Graham (2000) found globalization understood both as “an active agent” and as “a characterizing attribute [that] takes on sixteen different roles” (p. 246). They describe the resultant confusion like this:

globalization is a multi-dimensional thing; a process; a state of historically specific ‘being’ without a beginning or an end; an autonomous, active, phenomenologically extant agent with a specific speed and trajectory that is affected by the quality of communication, and which directly creates the fate of persons (p. 246).

Such confusion suggests considerable theoretical imprecision with respect to globalization.

Political. Still others understand globalization’s hidden practices as political. Ding and Savage (2013) claim that, in many cases, globalization appears as “a kind of natural force against which it is hopeless—and for many, undesirable—to exercise restraint” (p. 6). Such portrayals of globalization’s hidden forces may seem culturally

sensitive and fair. In reality, however, they may serve to justify exploitation (Ding & Savage, 2013).

Discussion

As a conceptual framework, TPC's understandings of globalization show three core categories: materiality, meaning, and practice. Materiality categorizes as geopolitical, financial, technological, and sociocultural, which tend to emphasize borders and boundaries. Meaning categorizes as semiotics, ideologies, identity, and affect, though language and ideology are perhaps the most prominent. Practices categorizes as politics, economics, business/labor, technology, socioculture, communication, education, and hidden practices.

The conceptual framework is thus not without strengths. For one, the core categories decenter globalization from shopworn binaries in mainstream scholarship: pro- and anti-capitalism, global-philia and -phobia, West and Rest (see Ritzer, 2008). The core categories also move beyond the master narratives of neoliberal institutionalism, such as the WTO, and technological determinism (see Friedman, 2005). Instead, TPC understands globalization as a confluence of institutional agency more broadly (geopolitics, economics, business/labor, etc.) and sociotechnical diffusion ("culture," digital networks, communities, affect, etc.). These poles suggest understandings of globalization that reach beyond Starke-Meyering's (2005) four themes: the facilitation of globalization through digital networks, the subsequent blurred boundaries and pluralized identities, the interactions of global and local discourses, and globalization's ideological

contestation. These four themes, along with their global literacy practices, may well require reconsideration.

Yet, a robust reconsideration will require empirical data as well, addressing the second fundamental weakness in global literacies. Like Starke-Meyerring (2005) the conceptual framework was generated through discourse rather than empirical data, though place, conceptual and geospatial, can provide a needed counterbalance. Sociological approaches to globalization suggest why: The sociologist Saskia Sassen (e.g., 2000, 2001, 2002, 2007, 2012, 2013) has repeatedly demonstrated that empirical investigations of place, which is scalable, can expose local processes and work culture that produce the global information economy. Such exposure can reveal globalization's contradictions and ironies. For example, why globalization master discourses privilege hyper-specialization, even though the global information economy requires, empirically, vast numbers of general service workers, such as janitorial staff, truck drivers, and secretaries (Sassen, 2012, p. 8). Such exposure can similarly challenge globalization master discourses of easy mobility, untrammled communication, and neutralization of time and distance (see, esp., Sassen, 2000).

Within TPC, place has informed instructional models (Melancon, 2007; Sinclair & Blachford, 2015), as well as work practices and identity construction (e.g., Bokor, 2011; Hunsinger, 2006; Ngai & Singh, 2014; Sapienza, 2001; Walters, 2010). Attention to place beyond these few examples, however, seems lacking, and the conceptual framework subsequently seems limited. Arturo Escobar (2001) accordingly issued the following call:

It will be necessary... to expand the inquiry into place to consider broader questions, such as the relation of places to regional and transnational economies; place and social relations; place and identity; place, boundaries, and border crossings; place and alternative modernities; and the impact of digital technology, particularly the internet, on places. What changes do occur in particular places as a result of globalization? Conversely, what new ways of thinking about the world emerge from places as a result of such an encounter? (p. 157, as quoted in Savage & Mattson, 2011, p. 31).

The conceptual framework does suggest points of departure in the core categories. Materiality, meaning, and practice are common conceptualizations of place (see Cresswell, 2013), and they might serve as methodological heuristics for TPC globalization scholarship.

Some of the most valuable places to globalization scholarship are cities. One reason is that, demographically, cities have swelled in significance under globalization. Some 54% of the world population currently lives in urban areas, and by 2050, that number will increase to 66% (United Nations, 2014)—approximately 6.5 billion people (Townsend, 2013). This urban expansion may well represent “the biggest building boom humanity will ever undertake” (Townsend, 2013, p. 2)⁸, and for good cause. Cities are

⁸ Townsend supports this assertion. He writes, “Today, India needs to build the equivalent of a new Chicago every year to keep up with demand for urban housing. In 2001, China announced plans to build twenty new cities each year through 2020, to accommodate an estimated 12 million migrants arriving annually from rural areas. Already largely urbanized, Brazil will instead spend the twenty-first century rebuilding its vast squatter cities, the favelas. In sub-Saharan Africa, where 62 percent of city dwellers live in slums, the urban population is projected to double in the

thought to drive regional development and poverty reduction. Moreover, they exceed rural areas in terms of literacy and education levels, population health, access to social services, and “cultural and political participation” (United Nations, 2014, p. 2). It is therefore no overstatement that cities “constitute the major social settings of our era” (Shohamy, Ben Rafael, & Barni, 2010, p. xiii).

Sassen suggests additional reasons for why cities matter in globalization scholarship: Cities furnish—and make legible—the infrastructure, resource concentrations, and practices essential to globalization (Sassen, 2012, p. 4). What is more, cities, compared to countries or nation-states, enable finer-grained analyses that produce a complex mosaic of results, including micro-geographies of inequality, transnational connections, and competing interests. The most significant cities for globalization scholarship are global cities, which function as “command points” in the world economy, “key locations and marketplaces” for leading industries, and “major sites of production” (Sassen, 2012, p. 7). Global cities thus provide some of the sharpest contrasts among globalization’s economic, geopolitical, and sociocultural impacts.

Although global cities are conspicuously absent from the conceptual framework, TPC has begun to recognize their importance. Ding (2014) empirical study of medical globalization, for example, focused on three global cities: Hong Kong, Beijing, and Toronto. Furthermore, Moore and Elliott (2016) have explored TPC’s connection to urban planning and participation, suggesting a case for cities-qua-places more generally. Thus, to supplement the conceptual framework with empirical detail—and to better

next decade alone. Just in the developing world, it is estimated that one million people are born in or migrate to cities every single week” (p. 2)

formulate a response to Starke-Meyerring (2005) and TPC's broader needs—Part II

explores how TPC has been instantiated in a global “u-eco-city”: Songdo, South Korea.

Part II

How has globalization, as made legible in a global city, instantiated TPC?

Chapter IV

Methodology for Empirical Study

Part I of the dissertation addressed the question *how has TPC instantiated globalization?* To that end, an integrative review with grounded theory methods generated a conceptual framework, mapping the field's understandings of globalization. The conceptual framework does suggest a need to update Starke-Meyerring's (2005) global literacies model, and especially the four globalization themes. However, to address the second fundamental weakness in Starke-Meyerring—the lack of empirical support—Part II presents a geosemiotic analysis of Songdo's Central Park.

Objective

Part II's objective is to empirically confirm and expand TPC's understandings of globalization, analyzing how TPC has been instantiated in a global city. The overall research question is *how has globalization, as made legible in a global city, instantiated TPC?* Given the dissertation's time and space constraints, though, that research question was narrowed to *what TPC artifacts in Songdo are displayed publicly, and how might they contribute to the city's symbolic characterization?* The findings are significant in three ways: They inform the conceptual framework from Part I, suggest ways of reformulating Starke-Meyerring's global literacies model, and address the broader need in TPC for methodological innovation, especially with respect to globalization.

Research Site

Songdo International City, here abbreviated as Songdo, is a u-eco-city (that is, a green city with ubiquitous technologies) located in the Incheon Free Economic Zone (IFEZ), South Korea. The city's history and significance illuminate its value to understandings of globalization and TPC.

History

According to Shwayri (2013), the history of Songdo reached a watershed moment on April 23, 1988. That day, the presidential hopeful Roh Tae-woo visited Incheon, a major South Korean city on the Yellow Sea, and voiced his commitment to an ambitious globalization project: the construction of a new, ultra-modern urban area. Roh won the election mere days later, and “reclamation” of the Incheon tidal flats began in October 1991. Soon came difficulties: with the simultaneous construction of another globalization mega-project—the Incheon International Airport—government leaders worried about the mounting traffic burdens. In addition, requests were submitted for “green” reports, a population transportation environmental evaluation and an infrastructure environmental pollution prevention plan (Shwayri, 2013). The construction of Songdo was of necessity forestalled.

The difficulties notwithstanding, the mayor of Incheon, Choi Ki-sun, remained optimistic. He envisioned that “Songdo New Town,” as it was then termed, would grow to address both local needs and global aspirations. In an interview, Choi predicted that Songdo would relieve Incheon of its housing shortages while playing “a major role in the future development of Inch[e]on,” benefitting from advanced transportation and

communication resources (*KBR*, 1994, p. 27). Those resources were intended to elevate Incheon, symbolically⁹ and economically, in regional networks of power.

Challenging Choi's vision, more difficulties would arise in the years that followed, as Shwayri (2013) noted. In 1995, local fishermen protested the construction of Songdo, and numerous arrests resulted. As a peace offering, the fishermen were each granted 165 square meters of city land that they could develop for commercial use. The legislation was coined the Fisherman's Living Land Policy. However, additional policy changes were underway. That same year, the Ministry of the Environment released *Korea's green vision 21*, a 10-year policy plan that laid out specific environmental targets (Ministry of Environment, 1995). The targets underlined more effective management of air, water, and waste.¹⁰ Perhaps in consequence, the Ministry of Maritime Affairs and Fisheries restricted land reclamation projects, and Songdo was reduced to a scant 10.5% of the original plans (Shwayri, 2013).

In 1997, speculative attacks against the Thai baht caused ripple effects across East Asian economies, leading to widespread financial crisis (see Stiglitz, 2002). The won's exchange value plummeted. As a result, South Korea's central government acceded to humiliating IMF regulations, and the economy had to be restructured. At the time,

⁹ As Mayor Choi noted, Incheon had been the first Korea port opened to foreign cultures during the Chosun dynasty. He thought it fitting, then, that Incheon would again open Korea to the world ("Korea's gateway," 1994).

¹⁰ Green growth would influence Songdo's development later as well. As Kim (2010) explained, the U.S. housing bubble burst in 2007, along with volatile oil prices around the world, "have made sustainability a viable brand value" (p. 17). More locally, South Korean President Lee Myung-bak "proposed a new vision of 'Green Growth' in August 2008, environmentally sustainable development has become a keystone in government policy. Although the idea of green growth is not new to civil society in South Korea, commitment to sustainability as a policy initiative is unprecedented. In July 2009, the Presidential Committee on Green Growth announced the 5-Year Green Growth Plan, investing more than 84 billion US dollars on various environmental projects" (Kim, 2010, p. 17). Songdo's branding as a green city thereby aligned strategically with both global market forces and national policy initiatives.

Daewoo and the Office for Metropolitan Architecture (OMA), a European architecture firm, held Songdo's development rights. Daewoo withdrew because of monetary pressures, however, and Songdo became a site in search of a purpose (Shwayri, 2013).

Shwayri (2013) wrote that as the economy recovered, South Korea's policy climate came to favor foreign direct investment, culminating in the Free Economic Zone Act of 2002. The act provided for tax easements, technological infrastructure, and foreign land ownership of Korean soil to attract foreign companies. IFEZ accordingly opened for business in 2003; and by then, interest in Songdo had rebounded, owing in significant measure to Incheon Mayor Ahn Sung-soo's vigorous advocacy. Songdo's development rights had passed to POSCO Engineering and Construction. However, those rights stipulated that POSCO partner with a non-Korean developer, as Daewoo had with OMA. Stanley Gale was invited to tour the reclamation site in 2001, and the Stanley Construction Company signed on soon afterwards, forming with POSCO New Songdo International City, Inc.

The design firm Kohn Pedersen Fox drew and submitted new master plans. Emphasizing green living, the plans won the People's Choice Award for Urban Design in 2007 and the *Financial Times* Sustainable Cities Award in 2008. Marketing materials hailed Songdo as "a model for future, sustainable city-scale developments, not only in Asia but across the globe" (KPF, 2004, cf. Douglas & James, 2014, pp. 406-407), an exemplar of "good globalization" (Moores, 2014). Amid this promotional energy, Songdo became operational in August 2009, and its construction—and contestation—is ongoing.

Significance

Songdo's significance in globalization is reportedly five-fold: financial, environmental, transportational, technological, and sociocultural.

Financial. Songdo has become the most expensive private real estate venture in history, the development costs now exceeding \$35 billion (Lobo, 2014). But investment has not translated well into returns. New Songdo International City, Inc., has yet to turn a profit, and during a debt restructuring, the developers ceded half of their future profits to Incheon City (Nam, 2013). The financial risk associated with Songdo is therefore considerable, and city's need to attract global capital and corporations has become vital.

The United Nations' Green Climate Fund (GCF) has added to Songdo's significance as well. An experiment in green finance, GCF was capitalized at \$100 billion and bears a specific global mission: to transform energy generation and access, create climate-compatible cities, encourage sustainable agriculture, protect forests, and strengthen the resilience of Small Island Developing States (Green Climate Fund, n.d.). However, the GCF has struggled with its ongoing fundraising, and critics have voiced concerns over "the fund's social and environmental safeguards, consultation process, accountability mechanisms and transparency" (Kumar, 2015).

Environmental. Songdo is among the world's greenest cities, containing more than 19.5 million square feet of LEED-certified construction. LEED—an acronym for Leadership in Energy and Environmental Design—is a building certification program that recognizes eco-friendly building strategies and practices. Thus, to earn LEED certification, buildings must have a low carbon footprint: conserving electrical power,

reducing water consumption, improving indoor air quality, and using sustainable building materials (see United States Green Building Council, 2016). Songdo's urban design supplements these building practices. Some 40% of the city space is devoted to parks and open areas (KPF, 2016).

With no small measure of irony, however, the construction of Songdo threatened migratory birds that nest in the local tidal flats. Several species of these migratory birds, including the black-faced spoonbill, are globally endangered. The non-governmental organization Birds Australia subsequently took action, issuing a public statement of concern (Russell-French, 2009), and their counterparts at Birds Korea appealed to the "Songdo University Global Campus" (Park & Moores, 2010). Further concerns were voiced by the Australasian Wader Studies Group (Rogers, 2010)¹¹ and other protestors. Perhaps as a result, the Ramsar Convention¹² designated the 6-kilometer long tidal flats as a Wetland of International Importance in October 2014, ensuring their preservation (see also Ko, Schubert, & Hester, 2011). In addition, IFEZ officials announced that, by late 2018, Songdo will include an 8,900-square-meter artificial island to help protect globally endangered migratory birds ("Artificial island," 2015).

Transportational. Songdo was constructed as an aerotropolis, given its proximity to the Incheon International Airport by car, bus, or subway. An aerotropolis is a city "whose infrastructure, land use, and economy are centered on an airport," and this design

¹¹ The Australasian Wader Studies Group is a special interest group of Birds Australia.

¹² A transnational partnership that includes most U.N. countries, the Ramsar Convention advocates "three pillars" of wetlands conservation: 1) working towards the wise use of wetlands, 2) the designation of suitable wetlands as Wetlands of International Importance, and 3) international cooperation on trans-boundary wetlands.

represents “the logic of globalization made flesh” (Kasarda & Lindsay, 2011, p. 6). Such cities are intended to offer global access and mobility, and Songdo is marketed in that manner: located within three and a half hours of one-third of the world’s population (Gale International, 2015).

Technological. Songdo was among the world’s first “smart” or “ubiquitous” cities. Operationalizing the Internet of Things, the city maintains pervasive wi-fi coverage, remote-controlled heating and refrigeration, and sensor-regulated street lighting, and close circuit traffic control (Daniel, 2015). Reactions to this technological infrastructure have been divided, however. On the one hand, Songdo may provide a “giant petri dish” for technology companies, encouraging global innovation (Shu, 2014). On the other, the city has been perceived as an “optimised panopticon” that undermines democracy, what with its surveillance and predictive capabilities (Pool, 2014).

Sociocultural. Songdo aspires to cosmopolitanism in its design, incorporating characteristics of iconic global cities: a Central Park inspired by New York City, canal systems by Venice, wide boulevards by Paris, and a performance venue by Sydney. Yet, foreign nationals have shown lukewarm interest in inhabiting Songdo, and the city has consequently undergone a steady Koreanization (Shwayri, 2013, pp. 48-52). Most of the 36,000 residents are native Koreans, and demand for residential units has far outpaced that for business space—problematic, since Songdo has been conceived and promoted as a “global business utopia” (see Reyes, 2013) Further concerns relate to language. Songdo streets and establishments tend to combine languages, though such “trendy” practices

“could end up damaging regional identities and confuse local residents” (“Foreign street names,” 2014).

These histories and tensions have made Songdo significant for research on globalization—at least, forms of neoliberal globalization that market capitalism and cities are thought to drive. Prior scholarship on Songdo has subsequently focused on city planning and development (Kim, 2013; Shin, 2015; Shwayri, 2013), urban competition (Carvalho, 2011), sustainable design (Yigitcanlar & Lee, 2014), and place promotion (Kim, 2010). Each of these studies bears potential implications for TPC. However, perhaps the most relevant to the field is Kim (2010), who analyzed professional communication practices. That study, more specifically, examined how Songdo marketing materials produce a “symbolic characterization” of the city.

Symbolic characterization is a strategic yet fundamental component of urban development. Under Kim’s (2010) definition—the “ascription of symbolic meaning to urban space” (p. 14)—symbolic characterization involves more than deploying “mere rhetorical devices” that serve the developers’ material interests (p. 18). Rather, it involves constructing and contesting “the meaning of urban form, function and life through images, symbols and discourses that echo prevailing cultural codes and social transformations,” including place identity (pp. 14-15). As a result, analyses of symbolic characterization can meaningfully inform global studies, capturing indices of economic and sociocultural globalizations, real and imagined. Such analyses can take greatest effect in new cities, where symbolic characterization is most apparent, especially in public areas.

One limitation to Kim (2010) is that the study investigated promotional and popular texts only: planning documents, publicity and marketing releases, media reports, and official websites. The study did not consider how symbolic characterization is produced in Songdo itself. According to Sassen (2000), research on globalization, global cities included, must attend to place and production practices; otherwise, master narratives that lack empirical support may obfuscate material realities. Part II of the dissertation therefore explores how texts emplaced in Songdo's public areas may serve to produce symbolic characterization: financial, environmental, transportational, and/or sociocultural. Since few if any TPC studies have analyzed globalization in this manner, conceptual and methodological expansion may be required, such as through the linguistic landscape (LL).

Linguistic Landscape

In scholarship written in English, LL was first understood as public signage: "The language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings" (Landry & Bourhis, 1997, p. 25). Since that influential study, understandings of LL have broadened. LL now encompasses "the area and arena where the negotiation of rights and identities... is wrought by way of mutable and not just static linguistic choices" (Barni & Bagna, 2015, p. 12). As with symbolic characterization, such choices mediate—and are mediated by—historical, social, political, ideological, geographic, and demographic conditions (Shohamy, Ben-Rafael, & Barni, 2010, p. xiii).

In this way, LL widens the conceptual orbit of sociolinguistics, its parent discipline. Specifically, sociolinguistics centers on human speakers whereas LL analyzes spaces and places, even as legitimate “speakers” in their own right (Gorter, Marten, & Van Mensel, 2012). The preeminent spaces and places that LL analyzes are cities, and some scholars have consequently argued for the replacement term “multilingual cityscapes” (e.g. Aiestaran, Cenoz, & Gorter, 2010). Even early LL studies that antedate Landry and Bourhis (1997) share that concentration on urban rather than rural environments. For instance, Backhaus (2008) observed that LL scholarship emerged from research on global cities, including Brussels (Tulp, 1978; Wenzel, 1996), Montreal (Monnier, 1989), and Jerusalem (Rosenbaum et al., 1977; Spolsky & Cooper, 1991), as well as Tokyo (Masai, 1972), Bangkok (Smalley, 1994), and Paris/Dakar (Calvet, 1990).

Such locational diversity has necessitated methodological plurality, and LL scholars may accordingly mix methods, as in Ben-Rafael et al.’s (2006) study on Israel’s symbolic construction of public space. These scholars digitally photographed and quantified the public signs they observed in various cities. They then analyzed those signs according to numerous qualitative variables: the languages used, as well as their saliency, size, order of appearance, and location. The findings presented a rich mosaic of the context-sensitive functions and symbolic content of Hebrew, English, and Arabic. In particular, the findings suggested how rational considerations, identity enactments, and power relations play into signage practices. Ben-Rafael et al. then concluded that “LL analysis allows us to point out patterns representing different ways in which people,

groups, associations, institutions and governmental agencies cope with the game of symbols within a complex reality” (p. 27), such as globalization.

With increasing attention to contestation and conflict (Rubdy & Ben Said, 2015), LL scholarship has come to emphasize qualitative methods. Qualitative methods may include—in supplement to digital photographic surveys—interviews (e.g., Brown, 2012; Hanauer, 2010; Malinowski, 2009; Tupas, 2015; Yitzhaki & du Plessis, 2015), participant observation (Blommaert, 2013), genre and discourse analysis (Hanauer, 2015), and qualitative content analysis (as in Frey, Botan, & Kreps, 2000). However, a key contribution to LL qualitative methods has been geosemiotics, the “study of the social meaning of the material placement of signs and discourses and of our actions in the material world” (Scollon & Scollon, 2003, p. 2). These relations are explored through three analytical frames: interaction order, visual semiotics, and place semiotics.¹³

Interaction order indicates the “the current, ongoing, ratified (but also contested and denied) set of social relationships we take up and try to maintain with the people who are in our presence” (Scollon & Scollon, 2003, p. 16, summarizing Goffman). Phrased another way, interaction order consists of “social performances” (p. 45) that mediate discourse, which can be understood as resources and units. Resources include senses of time, perceptual spaces, interpersonal distances, and personal fronts. Units include the types of performances under analysis, such as queues, meetings, and celebratory events.

Visual semiotics, following Kress and van Leeuwen (1996), encompasses the “grammar” of visual communication. The two main emphases with respect to

¹³ These analytical frames, by themselves, are not unique to geosemiotics, but their integration into a single, coherent framework is (Scollon & Scollon, 2003, p. 19).

geosemiotics are, first, how the social actor is depicted in the interaction order and, second, how the placement of visual symbols influences their interpretation (Scollon & Scollon, 2003, p. 18). On a finer scale, these emphases can be understood as four interrelated areas of inquiry: how images represent social relationships in the world; how social relationships between the image and the world are constructed; what concrete relationships exist between image representations and textual ones; and how social actors use pictures, such as texts and images, in social actions (Scollon & Scollon, p. 108). As a result, analyses of visual semiotics consider represented participants (narrative, conceptual), modality (color, contextualization, depth, illumination, brightness), composition (centered, polarized), and interactive participants (producers, viewers/readers).

Place semiotics stresses how material, geopolitical location contributes to meaning making. Analyses of place semiotics thus include code preferences (languages displayed), inscription (fonts, material qualities, layering, state changes), emplacement (decontextualized, transgressive, situated),¹⁴ space semiotics (public, private), and discourses (regulative, infrastructural, commercial, transgressive). Some analyses may include the social actor as well, and in particular the “habitus of individual humans” (Scollon & Scollon, 2003, p. 166). But such granularity requires ethnographic methods.

With these developments, LL methods and concepts suit an investigation of a global city’s symbolic characterization. Geosemiotics in particular offers several

¹⁴ Leeman and Modan (2010) take geosemiotics a step further. Analyzing the commodification of culture in Washington D.C.’s Chinatown, the authors show how a sign’s emplacement operates on three scales. The first is a *micro-scale*, or a sign’s immediate settings. The second is a *meso-scale*, or the surrounding neighborhood. The third is the *macro-scales* (used in the plural), or the sign’s national or even global urban context (p. 195), for instance the symbiotic economy to which the sign contributes.

advantages. First, geosemiotics captures symbols, images, and texts that may constitute symbolic characterization “on the ground,” such as TPC artifacts displayed in public. Second, geosemiotics highlights production practices and place, a need writ large in globalization research since unempirical master narratives can be limiting or misleading (see Sassen, 2000). Third, the three analytical frames (interaction order, visual semiotics, place semiotics) comport with the conceptual framework’s core categories in Part I (practice, meaning, materiality). Analyzing Songdo’s symbolic characterization through geosemiotics may therefore illuminate how a significant site of globalization, Songdo, has instantiated TPC.

Research Question

The overall research question is *how has globalization, as made legible in a global city, instantiated TPC?* Given the dissertation’s time and space constraints, however, this empirical study addresses *what TPC artifacts in Songdo are displayed publicly, and how might they contribute to the city’s symbolic characterization?*

Methods

In Songdo, data were collected through a digital photographic survey, a key method in LL research. Since the city approximates the size of downtown Boston, the survey could not capture all TPC artifacts, here understood as texts, symbols, and images on display in public. Sampling was thus required and followed Ben Rafael et al. (2006), who sampled “where the major commercial activity takes place and where the principal public institutions are located” (p. 11).

Given Songdo's design, such areas include the Global University Campus, Yonsei University, NC Cube Mall, Convensia, the United Nations offices, Michuhol Park, and Central Park. Two additional areas were sampled as well: the public areas of a bustling residential block, since real estate has driven the city's commercial value; and the International Business District Subway station, since developers have so heavily promoted transportation infrastructure. The data sampled from these areas is shown in Table 5.

Date	Area	Photos taken
July 23, 2016	Community Center	136
	Michuhol Park	615
	Global University Campus	*
	Convensia	167
July 24, 2016	Subway	338
	Global University Campus	441
	Yonsei University	577
	Residential Block	420
	United Nations	22
	NC Cube Walk	1,130
July 25, 2016	Central Park, including the Tri-Bowl	661

Table 5: Sampling dates, areas, and data

**Data collection at the Global University Campus began on July 23 but concluded the next day. To avoid confusion, I have only listed the total photographs taken there under July 24.*

The 4,557 digital photographs were then analyzed according to Scollon and Scollon's (2003) geosemiotics, focusing on interaction order, visual semiotics, and place semiotics.

However, with this volume of the data, Part II cannot present all the findings. The next chapter consequently details the findings from Central Park, the sampling area that invokes globalization with perhaps the greatest directness and depth (see KPF, 2004).

Chapter V

Findings from Central Park

The previous chapter detailed a methodology for analyzing the LL of Songdo, South Korea. Specifically, that methodology operationalizes a digital photographic survey and a geosemiotic data analysis, following Scollon and Scollon (2003). Since the data were extensive, this chapter presents a portion of the findings. The findings from Central Park, given the park's mission and design, are perhaps most relevant to understandings of TPC and globalization.

Overview of Central Park

During Songdo's master planning, Incheon Metropolitan City officials insisted on a hallmark: a prominent green space with parking, underground, for 6,000 vehicles (Lee & Oh, 2014, p. 20). Although the parking requirements were later reduced, that green space—Central Park—would come to occupy 101 acres, or 10% of the city's total area. The acreage is admittedly small by construction standards—8.5 times smaller than the namesake in New York City. However, Central Park was designed to meet residents' cultural needs and, moreover, attract foreign businesses and investment. The park is therefore as strategic as symbolic, or in the designers' terms, as “practical” as “poetic” (KPF, 2004, p. 4).

An early planning document describes how Central Park's six zones (promontory, mountain strolling garden, long meadow, esplanade, promenade, and perimeter) contribute to the park mission. On the one hand, the six zones evoke the Korean

landscape, highlighting local culture and geography. On the other hand, they express large-scale geopolitical aspirations. Central Park, like the surrounding city, was “envisioned on an international basis,” “expressive of a contemporary worldview of Korea and its place within the global context” (KPF, 2004, p. 13). Such features make Central Park a useful site for investigating Songdo’s symbolic characterization as captured in the LL. These findings, in turn, may illuminate relations between TPC and globalization more broadly, enriching Part I’s conceptual framework.

TPC artifacts displayed publicly

In the geosemiotic analysis, TPC artifacts displayed in Central Park fell into four discursive categories: regulatory, infrastructural, commercial, and transgressive.

Regulatory

Regulatory discourses serve to mediate mobility, and in particular vehicular or pedestrian traffic. They also serve to “inform the public either about conditions or regulations that are present in that place” (Scollon & Scollon, 2003, p. 184). An apt materialization of both functions was emplaced in the Central Park promontory (Figure 5).



Figure 5: Regulatory discourse in Central Park

The banner's centered text states that, within the park, riding a motorcycle is prohibited.

The bottom text attributes the banner's authorship to two authoritative entities, the Incheon Metropolitan Facilities Management Corporation and the Songdo Parks Management Team. The top threatens motorcyclists, when caught, with a ₩ 50,000 (\$42.95) fine, pursuant to Article 50 Section 5 of a parks and green spaces law.¹⁵ Beyond the banner, TPC artifacts in this discursive category include community guidelines, warnings, and surveillance notices.

¹⁵ Laws may characterize regulatory discourses. As Scollon and Scollon (2003) wrote, “not only have [these discourses] been produced by some municipal regulatory body but any person who goes against them might at least be legally sanctioned” (p. 185).

Infrastructural

Infrastructural discourses support a city's essential resources, such as roads, electricity, gas, and water. According to Scollon and Scollon (2003), these discourses tend to materialize in two forms. The first, written for a general viewership, is public labels. While public labels may index streets, they may also signal flora, monuments, and other amenities in Central Park.

The second form, written for workers who maintain city resources, is public functional notices. Although many public functional notices are muted or hidden, some are imbued with aesthetic value. Central Park includes both, as evidenced in drainage covers (Figure 6).



Figure 6: Two drainage covers in Central Park

**Note: During data collection, the camera was still set to United States central time. Thus, the time and date stamps are 13 hours behind.*

The two drainage covers fulfill the same infrastructural purpose. However, the muted or hidden cover (left) simply displays that purpose, inscribed with a Korean term for rainwater (우수). In contrast, the aestheticized cover (right) reflects, through leaf cutouts, the park's symbolic characterization as a green space, as well as emphasizes the

park's strategic location in IFEZ. Besides drainage covers, infrastructural discourses may materialize as sprinkler labels, drinking fountain guidelines, directional markers, constructions signs, danger tape, and braille elevator buttons, to name only a few.

Commercial

Commercial discourses indicate the presence of businesses or their products (Scollon & Scollon, 2003, p. 187). In Central Park, such TPC artifacts are numerous: lettering on light poles and security cameras, badges on canoes and flower pots, restaurant fronts, and posted menus. Commercial discourses may furthermore indicate financial contributions, as displayed in the esplanade (see Figure 7).



Figure 7: An esplanade bench showing the Industrial Bank of Korea logo

Neighboring metal benches identify specific names as contributors (기부자). Thus, the

situated emplacement—and similar visual design—of this bench implies that the Industrial Bank of Korea has financed Songdo’s construction as well. And indeed they did (see Gale International, 2007).¹⁶

Transgressive

Transgressive discourses are those that are out of place, often revealed in marginalized placement or superimposition (Scollon & Scollon, 2003, pp. 188-189). In Central Park, materializations of these discourses include abandoned coffee cups, soda cans, cigarette packs, and newspapers. But litter is not the only materialization on display, as seen on a skyscraper that overlooks the mountain strolling garden (Figure 8).



Figure 8: A transgressive message visible in Central Park

¹⁶ Most of the city’s initial financing (\$1.7 of 2.7 billion) came from Shinhan Bank, which has no commercial memorial in Central Park. Neither do the other 10 banks involved in that financing (see Gale International, 2007).

The addressee of this transgressive message is unclear, though the unnamed author evidently intended high visibility.

Divided into these discursive categories, some basic forms and functions of Central Park's TPC artifacts thus become apparent (see Table 6; for additional cataloguing, see Appendix 3).

Discursive category	Functions	Common forms
Regulatory	To mediate mobility, in particular vehicular or pedestrian traffic. To "inform the public either about conditions or regulations that are present in that place" (Scollon & Scollon, 2003, p. 184)	Fine banners, community guidelines, warnings, surveillance notices
Infrastructural	To support a city's essential resources, such as roads, electricity, gas, and water	Public labels, public functional notices
Commercial	To indicate the presence of businesses or their products To indicate financial contributors	lettering on light poles and security cameras, badges on canoes and flower pots, restaurant fronts, and posted menus
Transgressive	To transgress place, as revealed in marginalized placement or superimposition	Abandoned coffee cups, soda cans, cigarette packs, and newspapers

Table 6: A summary of the TPC artifacts displayed in Central Park, organized by discursive category.

It is important to note that the categories intermediate, and taken together, they evidence

multiple “ascription[s] of symbolic meaning to urban space” (Kim, 2010, p. 14). That is, Central Park’s LL suggests not only *what* symbolic meanings have been ascribed, but also *how*.

Symbolic characterization

The symbolic characterization of Central Park, as captured in the LL, is below (Figure 9).

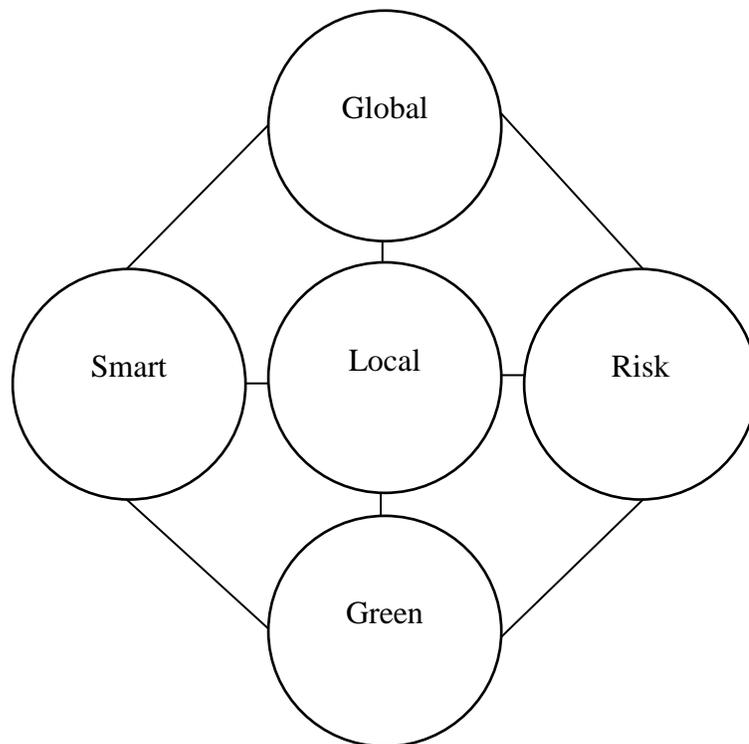


Figure 9: The symbolic characterization of Central Park, which comprises five place identities.

In this figure, the lines represent competing, stable-for-now bundles of symbolic meaning—“place identities” for short. The lines represent intermediation, or more

appropriately, what Scollon and Scollon (2003) term interdiscursivity: “the interactive influence of one discourse upon another” (p. 213).

The following sections discuss how certain interdiscursive processes may produce, contest, and sustain these place identities, preeminently the local. While these processes, again, are specific to Central Park, they may operate beyond the park perimeter as well—in Songdo’s symbolic characterization writ large.

Global

Central Park’s global place identity, at once economic and sociocultural, is enacted through five interdiscursive processes: financial territorialization, monumentalization, embodiment, evocation of place, and code switching.

Financial territorialization impresses economic structures or their symbols upon the park. This interdiscursive process divides into declarative, proximal, and organizational sub-processes. Declarative financial territorialization is manifest in the mountain strolling garden, where rubber grates declare Songdo a “global business utopia.” Proximal financial territorialization appears on directional markers, which reinforce the park’s proximity to the Convensia and G-Tower—both significant locations in economic terms¹⁷. Organizational financial territorialization pervades the park’s materialized discourses, as official signage often displays the IFEZ name and logo.

Monumentalization commemorates people and events of consequence to the park’s short global history. This interdiscursive process tends to materialize as stone inscriptions, for instance the plaque displayed on the park’s eastern perimeter. Carved in

¹⁷ The Convensia, a spacious convention hall, has hosted transnational gatherings that range from the World Korea Business Convention to the Olympic Council of Asia. For its part, the G-Tower houses the United Nations GCF.

more Hangeul than English, the plaque arranges several construction milestones: the business plan approval date, construction start date, inspection approval date, and the partnership between Gale International and Posco E&C. Within the park, another stone inscription was emplaced in a miniature garden of lava rock and succulents, commemorating Songdo's selection as the United Nations GCF host city. Of course, such monumentalization may obfuscate local tensions that have complicated the city's development (see, for example, Ko, Schubert, & Hester, 2011).

Embodiment portrays or mediates the human body, and this interdiscursive process divides into participative and representative sub-processes. *Participative embodiment* locates agency in the body itself. As an example, the hand impressions of 10 key developers, such as Ahn Sang-soo, and Stan Gale, are displayed along a long meadow walking trail. The hand impressions are distinct, to scale, and named. In addition, below them hang 2,000 hand-painted tiles from 2,000 local residents, who participated in a Central Park art event. These features position the embodied developers—and the local residents—as participants with agency. In contrast, *representative embodiment* locates agency outside the body, as evidenced in an aestheticized esplanade carving (Figure 10).



Figure 10: “The face of the global,” or “The face of the global village.”

The layered signs, on the deck and base, indicate the English title as “the face of the global” or “the face of the global village” (지구촌의 얼굴). According to the deck sign, the carving portrays “masks from 120 countries, which reflect its own ethnic sentiments.” Those masks and ethnic sentiments, however, were not contributed; they were constructed, the authorship—and agency—attributed to the Incheon Culture Development Institute. The carving is hence representative embodiment, a form of ideological aestheticization.¹⁸

Evocation of place replicates the characteristics of certain landscapes and cityscapes beyond Songdo. The Tri-Bowl Multiplex Cultural Center, for instance, was intended to evoke ocean views from Incheon harbor (ArchDaily, 2011)—significant, because Incheon was the first Korean port, during the Choseon dynasty, opened to foreign cultures (“A bright horizon ahead,” 1994). In addition, Incheon harbor was the landing point for MacArthur’s troops during the Korean War (see Wainstock, 2013). Yet, the Tri-Bowl may also bear an uncanny resemblance to the Brazilian National Congress, in Brasilia (Marshall, 2016). Although that resemblance was perhaps unintentional, Songdo, like Brasilia, is a global city built from scratch.

Code switching alternates symbol systems on the park’s signage, dividing into code meshing and code mixing sub-processes. The former, *code meshing*, often involves selective translation or transliteration. For example, the place name Central Park is written 센틀랄 공원 throughout the six zones, the first word a transliteration of “Central” and the second a transliteration of “Park.” Code meshing often involves transgressive script variations as well. Above the east boathouse, signage for the restaurant sundelli transgresses English spelling and capitalization. In the same location, signage for the restaurant Song강정 blends English, Korean, and Chinese scripts.¹⁹

¹⁸ The esplanade carving is poetic, but representative embodiment can also be practical, at least in part. That practicality is apparent when embodiment is gendered in Central Park. For instance, one maintenance ground sign shows a hunched figure, presumably a man because of the body type. The lettering beneath him reads “construction,” or more literally, “under construction” (공사중). In contrast, another ground sign shows a smiling face, presumably a woman because of the shoulder-length hair and polished facial features. The lettering beneath her reads, in high formality, “Cleaning / Wait a moment please” (청소중 / 잠시만 기다려 주십시오). Both of these ground signs are infrastructural, facilitating in park maintenance and operation. However, both suggest something about the local gendering of work and language practices.

¹⁹ Song강정 has numerous local allusions. 강정 refers to fried glutinous rice cakes as well as sweet and sour chicken (강정닭). But when those characters combine with “Song,” the restaurant alludes both to

The latter sub-process, *code mixing*, utilizes different symbol systems to convey different information. As an illustration, esplanade metal benches display phrases in Latin (*carpe diem*), French (*vouloir, c'est pouvoir*), and even treble clef music notes (Figure 11).



Figure 11: Code switching in the esplanade

On this bench, the English promises luck, and the Hangeul identifies financial contributors. The Hangeul additionally extends an invitation fused above the music notes: “Do you know this song?” With an electronic keyboard adjacent, viewers can convert those notes into a social performance. Thus, code mixing may involve not only different symbol systems, but different modalities as well.

Songdo and a monument in Jeollanam-do province. That monument, Song Gang Jeong (written 송강정 or 松江亭), commemorates a famous love poem by Jeong Cheol. Song강정 is not Central Park’s only allusion to love.

Green. Central Park's green place identity is enacted through three interdiscursive processes: gatekeeping, selective representation, and scientific classification.

Gatekeeping regulates certain interaction orders and may materialize near park entrances. This information sign (Figure 12) was emplaced in the entrance furthest north and west.



Figure 12: A park information sign, which appear throughout Songdo's park systems

The rough-hewn texture and green coloring are not meaningless, evoking nature. But the sign's information content reveals finer-grained sub-processes that constitute

gatekeeping: assertion of authority, epideictic appeal, and jurisprudential abstractionism.

The first, *assertion of authority*, takes several forms. Declarative assertion of authority appears in the sign title, where the text declares “park use information” (공원이용안내). Organizational assertion of authority occurs in the bottommost text, where the Incheon Metropolitan Facilities Corporation—which has regulatory power—is assigned authorship. Legal assertion of authority, with increased chromatic brightness, cites the City Parks and Green Spaces Act Article 49 and the Enforcement Act Article 50.

The second sub-process in gatekeeping, *epideictic appeal*, invokes cultural values. Such an appeal is legible on the sign’s three topmost, enlarged sentences: “All citizens are prohibited from the following acts to ensure access to a pleasant park. Violations will be subject to penalties under the Act on City Parks and Green Spaces. Please cooperate [to keep] the park clean and beautiful.” Those sentences, then, appeal to cultural values involving both people and nature. The former include citizenship, cooperation, and, more subtly, rule of law. The latter include pleasantness, cleanliness, and beauty. Perhaps strengthening the epideictic appeal here is the sign’s location, only a block distant from the value-expressive Harmony-ro.

The third sub-process in gatekeeping, *jurisprudential abstractionism*, encases information in non-concrete legal language. As sign’s icons reflect, certain practices in the park are prohibited unless authorized. Those practices include camping, farming, littering, trapping animals, picking fruit and flowers, and “sales using motor vehicles that have more than two wheels.” Added to each is the defining term 행위, meaning deed, action, or conduct. Hence, not only is camping forbidden, but camping conduct. Not only

is farming proscribed, but farming actions. That nuance in language, even if prevalent in law, elevates the park regulations to higher abstractions—expanding the number of prosecutable practices and broadening the gatekeeping authority of local regulatory bodies.

Selective representation, another interdiscursive process that enacts green place identity, presents strategic images of the park. Such representation may be in part geopolitical. Along Central Park’s southern walking trails, for example, a sign signals a “great place to take photos” of the “traditional landscape garden” (전통 조경원). Since the area’s pre-reclamation landscape was mudflats, not a manicured forest, the sign enacts a selective representation that may obfuscate environmental tensions over the city’s construction (see, e.g., Ko, Schubert, & Hester, 2011; Shwayri, 2013). That is, the sign presents a strategic image of preservation in place of reclamation.

Selective representation can be more complex, however, considering the wooden map entitled “Songo Central Park, 9 Landscape” (sic). The map shows a walking route through nine landscapes (경) in the park (Figure 13). Most selected landscapes are naturalistic inherently, such as the azalea garden, spotted deer, and pampas field. Some selected landscapes are naturalistic associatively, such as the cultural “bloom” (피어나) of the hanok village, the lake bridge at sunset (호수교 석양), and the traditional pavilion in moonlight (송하정 달빛). Therefore, selective representation may be as linguistic as visual, as interconnected as isolated.



Figure 13: A map showing a selective walking route through Central Park

But of equal importance may be geospatial arrangement. On the map, the walking route commences and concludes in the east, a significant direction in traditional geomancy, *poong soo*. Designers sought to implement *poong soo* in the park, and they wrote that the east represents water and circulation—in particular of *gi* energy (KPF, 2004, p. 12). The east may also represent the color green (靑) and vice versa (Yoon, 2006)²⁰. Geospatial arrangement may thus enhance selective representation, revealing rather than concealing symbolic meaning.

²⁰ Yoon (2006) elaborated that “The east is the direction of the sunrise, which represents vitality and life; the color green also symbolizes life. When the sun rises and brings a warm atmosphere, trees grow and the wood turns green. The east is assigned to the season of new life, the spring. The sun is the most critical factor in keeping the trees green. Therefore, assigning green or azure to the direction of the sunrise, the east is justified and appropriately represents the environmental conditions of northern China [and Korea]” (p. 26).

Scientific classification indexes park flora and their attributes, materializing as public labels. These public labels necessitate close personal distance, given their small size, and show two addressivities (Figure 14).



Figure 14: Two public labels for *Pinus thunbergii*, which lends its name to Songdo²¹

The first addressivity (left) is non-technical, the visual semiotics highlighting the tree's common names (해송, or Japanese black pine) and a QR code, so labeled in green.

Meanwhile, the binomial classification in Latin (*Pinus thunbergii* Parl) is muted. The second addressivity (right) is more localized and technical, situated on the trunk.

Although the bolding implies that the Hangeul corresponds to genus and species, the

²¹ Aside from Songdo's name, *Pinus thunbergii* is significant for local historical reasons. These trees were associated with religious rituals during the Choseun dynasty (see Kim & Lee, 2013, p. 85), and the national post office recently displayed them on another public text—stamps. The post office website explained, “Legend tells that when God came down to the human world, he took a rest near this big tree and this belief led the Japanese black pines to be regarded as being sacred and thus protected” (Korea Post, 2007). Other trees that Songdo developers scientifically classified, such as *Zelkova serrata* Makino (Japanese zelkova) and *Ginkgo biloba*, have similar associations.

semantic content reveals otherwise. Both bolded (곰솔) and non-bolded (해소) characters are local names for the Japanese black pine. Then follows a biological description: the tree is classified among the gymnosperm pinales (겉씨식물 구과목) as a Pinaceae evergreen (소나무과의 상록교목). These two addressivities appear throughout the park.

Smart

Central Park's smart place identity is enacted, primarily, through one interdiscursive process: *reinforcement of proximity*. Reinforcement of proximity, beyond economic territorialization, emphasizes the not-distant location of technological features. For instance, along the park's southern perimeter, street signs indicate Technopark-ro, which runs eastward to a city space zoned for high technology. Moreover, bordering the park is the Incheon Compact Smart City, a museum that contains a miniaturized model of Songdo and visualizes the region's future. This museum is mentioned on infrastructural signage, including the Miraegil trekking course. Miraegil (미래길) means "road of the future," suggesting that, though understated, the park's smart place identity remains significant in the symbolic characterization overall.

Risk

Central Park's risk place identity is enacted through three interdiscursive processes: hazard identification, safety infrastructure location, and surveillance notification.

Hazard identification marks possible danger in the park, dividing into prohibition and warning sub-processes. *Prohibition* is often enacted through the term 금지

(“prohibited,” “restricted”) and a slashed red circle (Figure 15).



Figure 15: A prohibition sign in the esplanade

On this esplanade sign, the salient phrase “Do not enter” (진입금지) signals an area-specific prohibition. But to make the meaning clear, the sign operationalizes further interdiscursive sub-processes. One is representative embodiment, which connects the prohibition to bicyclists. Another is epideictic appeal to safety (안전), indicated in the smaller, yellow-backgrounded text. A third is an assertion of authority, the sign authored by the Incheon Metropolitan Facilities Corporation and the Songdo Park Management Team.

Warning, compared to prohibition, positions viewers with greater agency, which manifests itself in language: Instead of 금지, warning tends to display 위험 (“danger,” “hazard,” or “caution”) as well as quantification—the measurement or enumeration of risk. In the park, quantification was enacted beneath a bridge overhang (Figure 16).



Figure 16: Quantification on warning signs

Framed with red, the first warning sign quantifies the vertical differential between the bridge and walking path as only 1.7 meters. The second warning sign, its colors suggesting heightened risk, provides more detail. Its text states, “Height limit 1.7 meters. Caution, collision accident.” In this case, then, the quantification at once indexes and legitimates the warning.

Safety infrastructure location situates park resources to mitigate or otherwise respond to risk. Much of this infrastructure, life preservers included, is concentrated around the salt water canal (Figure 17).



Figure 17: A life preserver along the salt water canal

The signage shows two interdiscursive sub-processes in operation: place indexing and instruction.

Place indexing indicates—rather than replicates—locations through either direct or indirect strategies. Direct place indexing occurs in the metal plate’s “cp” abbreviation and the life preserver’s 센트럴공원 inking, which both indicate Central Park. Indirect place indexing is enacted in the metal plate’s assertion of authority. The Facilities Management Corporation President and the Central Park Agency have regulatory power over a limited area, and their mentioning thus indirectly indexes the park. Place indexing therefore locates safety infrastructure geospatially and authoritatively.

Instruction conveys how to perform a particular action, an interdiscursive sub-process that relies on materiality and semantic content. The metal plate's materiality suggests a technical addressivity, given the low color contrast and small font size. Moreover, the semantic content, written in Hangeul, includes quantification (a life preserver buoyancy of 130 kg and cord length of 20 meters), high formality, and technical conditions: "Please throw the victim a life preserver, but use only in the event of distress." Instruction therefore locates safety infrastructure normatively and performatively.²²

Surveillance notification signals the presence and, at points, the conditions of observation apparatuses. This interdiscursive process divides into two sub-processes, company branding and strategic ambiguity.

Company branding stamps observation apparatuses, such as security cameras, with commercial discourses. These discourses materialize as discrete logos, positioned either on the apparatuses themselves or in the observation area. In Central Park, most security cameras show the Samsung logo, and the east boathouse displays an ADT badge on the deck. Since both companies are industry leaders, such branding may also assert authority, perhaps strengthening surveillance efficacy.

Strategic ambiguity mediates disclosure in surveillance notification. In Central Park, that disclosure is enacted to varying degrees, as seen in the mountain strolling garden (Figure 18).

²² Should more than a life preserver be required, the east boathouse docks a motorboat that flies a bright orange flag. That flag signals the purpose of emergency rescue (비상구조). Perhaps to mitigate the tone, though, a pirate flag with a cartoonish skull and crossbones flies adjacent.



Figure 18: Surveillance notifications with lower degrees of disclosure

The lower degrees of disclosure are legible on a light pole in the mountain strolling garden. Given its small size and proximity to the ground, the bottom sign represents the lowest level of transparency. The blue frame does invoke hazard signage, which display a similar hue and intensity. However, the semantic content might be ambiguous. The camera icon lacks detail, and reading the text requires close personal distance, especially the English phrase “Video Camera Recording.”

The top sign reflects a somewhat greater degree of disclosure for several reasons. One reason is that the camera icon more closely resembles the actual security camera, making interpretation less context dependent. Another reason is that the text is larger and higher, and the red coloring is perhaps more suggestive of risk. However, neither of the light pole's two signs indicates explicitly what CCTV means—closed circuit television, a surveillance apparatus. In addition, viewers are uninformed as to the precise surveillance area and security camera range. Such strategic ambiguity, an interdiscursive process, may extend the reach of the surveillance apparatuses.

The Tri-Bowl shows higher degrees of disclosure, as evidenced on a parking information booth (Figure 19).



Figure 19: Surveillance notifications with higher degrees of transparency

The sign emplaced on the booth's upper right side itemizes certain surveillance details. Beneath the sign's title ("About CCTV recording") and painted image, those details are written in plain terms: The purpose of the surveillance is security and facilities management. The recording time is 24 continuous hours. The camera range is the entire Tri-Bowl outdoor space. Yet, the director is listed simply as the facility manager. In addition, the text is exclusively Hangeul, a form of strategic ambiguity.

The sign emplaced on the booth's upper left side appears newer, the adhesive tape suggesting changeability. Compared to the other sign, though, the information here is more detailed: The listed purpose is facility safety, security, and fire prevention. The observation area is outside the Tri-Bowl and parts of the underground parking. Although the managing director, identified as the Tri-Bowl director, is left unnamed, the sign does show the contact number of a local administration office (관리사무소). Hence, while some details are disclosed, others are left strategically ambiguous. The effect may be a symbolic transparency that masks the operations of power.

The material and semantic differences between surveillance notifications can therefore be substantial. Taken together, the four signs may reflect ongoing contestation in the park, ideological and procedural, regarding surveillance practices.

Local

The foregoing analysis demonstrates how, in Central Park's symbolic characterization, local place identity intermediates the other four. That localization ranges from appeals to Incheon authorities to "traditional" landscape representations and

historical allusions, to discursive exclusions of non-Korean languages²³. But local place identity also *intramediates*—that is, mediates itself—as manifest in one particular interdiscursive process: code preference.

Code preference refers to “the relationship between two or more languages in bilingual signs and pictures” (Scollon & Scollon, 2003, p. 209). As an example, the park’s accommodation signage, tailored for visitors with physical disabilities, reflects relationships between Hangeul and local braille. The east boathouse elevator buttons (Figure 20) suggests that the two languages may serve different functions, a form of code mixing.



Figure 20: Hangeul and braille the east boathouse elevator

²³ Additional examples include the map of “lover’s island”; the instructions for canoes, kayaks, and four-wheeled bicycles available for rent; and the foot spa signage.

The plaques indicate that the two restaurants, sundelli (썬델리) and Song강정 (송강정), are located on the second floor; the boathouse (보트하우스), on the first. Meanwhile, the braille translates the button symbols: number 1, number 2, open (개), and close (폐). Hence, the Hangeul conveys *what* is there, and the braille *how* to get there. Similarly, elsewhere in the park, a handhold sign explains that the handhold was posted for the blind; in contrast, the worn-away braille appears to index a particular amenity, as indicated by the right arrow in the raised dots.

That relationship does not persist throughout the park, however. On a map emplaced outside the Tri-Bowl, the two languages reach near equivalence (Figure 21).

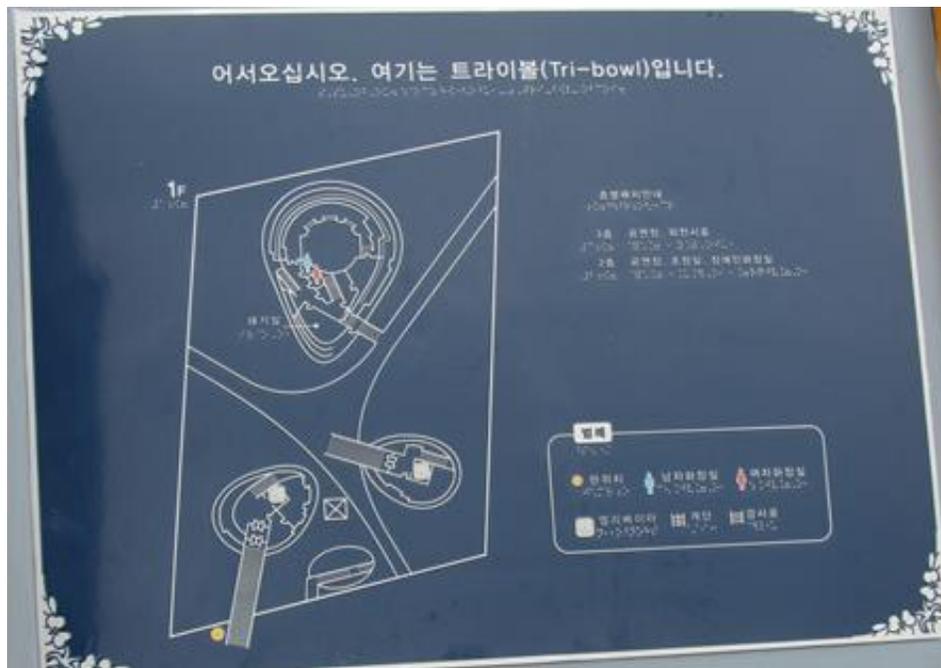


Figure 21: A Tri-Bowl map where Hangeul and braille are near equivalent

The map's title bids "welcome, this is the Tri-Bowl" in formal Korean as well as Braille, and such translation occurs again in the floor layout guide (층별배치안내) and legend (범례). The map's visual semiotics suggest similar near equivalence, for the icons, characters, and building layouts are all elevated, not flat. As a result, the map may be navigated through touch as much as through sight. Such features suggest an emergent sixth place identity in Central Park: accessible place identity.

Summary

In summary, this geosemiotic analysis captures symbolic characterization of Central Park, which consists of five overlapping place identities. These place identities, in turn, are enacted in interdiscursive processes (see Table 7) materialized as four categories of TPC artifacts: regulatory, infrastructural, commercial, and transgressive.

Place identity	Enacted interdiscursive processes (forms or sub-processes)
Global	Financial territorialization Monumentalization Embodiment (participative, representative) Evocation of place Code switching (code meshing, code mixing)
Green	Gatekeeping (assertion of authority, epideictic appeal, jurisprudential abstractionism) Selective representation Scientific classification
Smart	Reinforcement of proximity

Risk	Hazard identification (prohibition, warning) Safety infrastructure location (place indexing, instruction) Surveillance notification (company branding, strategic ambiguity)
Local	All of the above, plus code preference

Table 7: Summary of the place identities and interdiscursive processes that constitute and enact them. The forms or sub-processes are indicated in parentheses.

As shown in the table, Central Park's global place identity is enacted through financial territorialization, monumentalization, embodiment, evocation of place, and code switching. The green place identity, through gatekeeping, selective representation, and scientific classification. The smart place identity, through reinforcement of proximity. The risk place identity, though hazard identification, safety infrastructure location, and surveillance notification. The local place identity, which centrally mediates the other place identities, is enacted through all of these interdiscursive processes to some extent, as well as code preference.

Some of these interdiscursive processes take several forms, such as representative and participative embodiment or prohibition and warning. Others consist of numerous sub-processes; for instance, gatekeeping involves the sub-processes assertion of authority, epideictic appeal, and jurisprudential abstractionism. Thus, the empirical findings illustrate how globalization may be constructed locally, through TPC artifacts (for examples of the same interdiscursive processes materialized elsewhere in Songdo, see Appendix 4). These findings add detail to TPC's understandings of globalization as presented in Part I's conceptual framework, including the following:

Cities. Excepting a lone reference to urban space (Meloncon, 2007, p. 36), cities were absent as a category from the conceptual framework. However, given the value of global cities such as Songdo to empirical research, cities should constitute a conceptual category between national and ecological materiality.

Language contact. The conceptual framework showed little depth on language contact, despite the prevalence of language contact worldwide. In the geosemiotic analysis, language contact between English and Korean—which may encompass translation, ELF, and hybridization—shows practices that are hierarchical, historical, and transgressive. The restaurant Song강정 is a case in point. However, language contact may also relate to socioculture practices of inclusion/exclusion. For example, Songdo's local code preferences may include Hangeul-literate viewers in certain discourses, such as those evoking citizenship, but exclude viewers only literate in other languages. These findings should modify understandings about English language dominance under globalization (e.g., Louhiala-Salminen and Kankaanranta, 2011; Mehrpooyha & Nowroozzadeh, 2013).

Symbolic exploitation. The conceptual framework included little detail on this category. However, the company branding on esplanade benches and security cameras may provide an example.

Identity. In the conceptual framework, identity was categorized under the core category of meaning. Yet, identity largely referred to people, either as individuals or as groups. The empirical findings illustrate how identity, especially identity-cum-text and -place, can also apply to such places as cities.

Text. The conceptual framework does mention text as a technological materiality and, again, an identity property. However, the empirical findings show how mundane text such as park signage, rather than digital technologies per se, can “furnish ideological materiality that shapes much of globalization’s materiality.” The conceptual framework may be empirically generative in many other ways as well.

Together, then, the conceptual framework and geosemiotic analysis offer a detailed view of TPC’s understandings of globalization. With their robust review methods and empirical support, they can respond to Starke-Meyerring’s (2005) global literacies as well as TPC’s broader methodological needs. The next chapter concludes this discussion.

CHAPTER VI

Summary and Conclusions

This dissertation responds to two fundamental weaknesses in Starke-Meyerring (2005)—among the most influential TPC studies that addresses globalization with directness and depth. These weaknesses, weak review methods and paucity of empirical support, pervade TPC scholarship more broadly. Indeed, few TPC reviews show rigorous methods, and the field’s empirical studies have only started to develop means of capturing globalization’s legible impacts. Ding’s (2014) critical contextual methodology exemplifies the latter, and so does the *TCQ* special issue on transcultural communication. Yet, given globalization’s significance in TPC research, teaching, and ethics, I argued that further advancement in these areas is needed.

Part I of the dissertation subsequently focused on weak review methods, investigating the research question *how has TPC instantiated globalization?* Chapter II then detailed an integrative review synthesized with grounded theory, which generated a corpus of 264 journal publications and 972 “globalization” instantiations. Chapter III described the findings: a conceptual framework with materiality, meaning, and practice as core categories. These findings, mapping TPC’s conceptual understandings of globalization, illuminated some limitations to Starke-Meyerring’s (2004) four themes. Since the conceptual framework too required empirical support, though, I argued for global cities as empirical research sites, the remit of Part II.

Part II of the dissertation focused on Starke-Meyerring’s (2005) paucity of empirical support, exploring the research question *how has globalization, as made legible*

in a global city, instantiated TPC? Chapter IV thus detailed LL, geosemiotics in particular, to analyze Songdo’s symbolic characterization—key to the city’s ongoing globalization efforts (Kim, 2010). Data collection occurred there in late July 2016, resulting in 4,557 digital photographs from 10 sampling areas. To accommodate this volume, the research question narrowed to *what TPC artifacts in Songdo are displayed publicly, and how might they contribute to the city’s symbolic characterization?* The data analysis correspondingly narrowed to Central Park, the sampling area that pertains more directly and relevantly to globalization.

Chapter V detailed the findings: I found that the city’s symbolic characterization subdivides into five place identities (global, green, smart, risk, local). The place identities, in turn, are enacted through interdiscursive processes materialized as TPC artifacts, which fell into four discursive categories (regulatory, infrastructural, commercial, transgressive). I then discussed how these findings empirically support the conceptual framework from Part I, though how they relate to Starke-Meyerring (2005) remains to be discussed. Such is the purpose of this sixth and final chapter. This chapter will relate the dissertation research, albeit briefly, to Starke-Meyerring’s global literacies and TPC’s broader needs, specific to research, teaching, and ethics²⁴.

Global Literacies

Starke-Meyerring’s (2005) global literacies derive from fourth themes: “*the facilitation of globalization through digital networks*” (pp. 475-476), “*the resultant pluralized identities and blurred boundaries*” (pp. 476-481), “*increased interactions*

²⁴ I should emphasize this dissertation does not attack Starke-Meyerring (2005). Rather, it takes up her call for “a long-term collective effort and robust dialogue,” thus developing TPC resources “that reflect the contexts of globalization” (Starke-Meyerring, 2005, p. 470).

between diverse local and global discourses” (pp. 481-484), and “*ideological contestation surrounding globalization*” (pp. 484-488). Based on the research presented here, however, I argue that these overlapping themes should be updated, as follows.

Globalization is facilitated through text, digital and geospatial. In Part I’s conceptual framework, digital networks are emphasized but shown as problematic because overemphasized. That overemphasis may obscure friction points, alternate histories, power relations, and human agents, suggesting a form of technological determinism in which no one is accountable. Part II’s geosemiotic analysis therefore provides a partial but agentic corrective, illustrating how geospatial texts can facilitate globalization “on the ground,” with no digital networks at all. Conceptualizing text in this way, as both geospatial and digital, can thereby restore material infrastructure and local production processes that are critical for empirical work on globalization (see Sassen, 2000, 2012).

Pluralized identities for people and places result, mediated by boundaries. With emphasis on TPC programming, Starke-Meyerring (2005) highlighted the pluralization of *student* identities. But the conceptual framework and geosemiotic analysis reveal understandings of globalization that extend deeper, and of necessity. The conceptual framework emphasizes the influence of boundaries, whether textual or placial, on identity construction (see Amidon & Blythe, 2008; Carnegie & Abell, 2009; Hunsinger, 2006; Sapienza, 2001). The geosemiotic analysis then furnishes empirical support, demonstrating how five overlapping place identities—global, green, risk, smart, and local—are enacted through Central Park’s public texts. Together, then, the dissertation’s

two parts challenge the globalization master narrative of blurred boundaries (see Starke-Meyerring, 2005, pp. 476-481), providing needed nuance and grounding.

The interactions between diverse discourses are hierarchical. According to the conceptual framework, discourses become mobile across geopolitical and cultural borders, authors and audiences, and scales of interaction. But that mobility is not unrestricted. Discourses are mediated through objects, tools, and places such as global cities. In Central Park, discourses are mediated in particular through local place identity, which is hierarchical and materialized in code preferences. There, certain discourses are even exclusive—hidden or incomprehensible to viewers not Hangeul literate. In this way, the dissertation research again provides nuance and grounding to Starke Meyerring (2005).

Surrounding globalization is macro, meso, and micro ideological contestations. Starke-Meyerring (2005) aptly illustrates some of the macro contestations, which involve the formation of a social, political, and economic world order—more imaginary than material. More material than imaginary contestations are enacted in Central Park, some applying to the entire park (meso contestations) and others to specific spaces (micro contestations). Meso contestations include selective representations, such as the signs that highlight “traditional” meadows and forests—obscuring the controversial reclamation from tidal flats (Ko, Schubert, & Hester, 2011). Micro contestations include surveillance notification and scientific classification, which both vary in ideological level of visibility, readability, and transparency.

Globalization infrastructure and resources are concentrated in cities, global cities in particular. As stated previously, cities furnish—and make legible—the infrastructure, resource concentrations, and practices essential to globalization (Sassen, 2012, p. 4). What is more, cities, compared to countries or nation-states, enable finer-grained analyses that produce a complex mosaic of results, including micro-geographies of inequality, transnational connections, and competing interests. The most significant cities for globalization scholarship are global cities, which function as “command points” in the world economy, “key locations and marketplaces” for leading industries, and “major sites of production” (Sassen, 2012, p. 7). Global cities thus provide some of the sharpest contrasts among globalization’s economic, geopolitical, and sociocultural impacts. The geosemiotic analysis in Songdo suggested some ways how, filling key absences in both the conceptual framework and Starke-Meyerring (2005). Granted, these five require further exploration, but they can nonetheless begin to inform TPC’s broader methodological needs, specific to research, teaching, and ethics.

Research

Based on the five updated themes, I argue for additional TPC research on globalization, both reviews and empirical studies.

Reviews

Part I of this dissertation demonstrates the usefulness of reviews, integrative reviews especially, in TPC globalization scholarship. But TPC needs more such reviews, as well standards for judging their quality. The three principles of rigor in Chapter II, though basic, may provide points of departure.

Clarity. This principle combines transparency and style: Is it clear who collected the data, when and where the data were collected, and why certain data were included in the final data set? Are the findings presented in an accessible, understandable format?

Criticality. This principle combines critical reflection and critical analysis: How effectively does the author account for his/her own positionality, including possible biases, values, and assumptions that may have impacted the findings? How thoroughly has the data been assessed and critiqued?

Justifiability. This principle relates to the review's relevance and defensibility: How persuasive are the reasons for undertaking a review? How appropriate is the review for the research questions or objectives? To what degree does the data support the findings?

With greater attention to reviews, TPC can develop these principles of rigor in greater detail. Reviews guided by such principles can continue to expand the five globalization themes and their underlying conceptual framework.

Empirical studies

Part I of this dissertation demonstrated the value of empirical methodological innovation, such as through importing LL methods from sociolinguistics. With their emphases on text and place, ideology and identity, LL methods are well suited for further investigations of the five globalization themes. What is more, the three analytical frames in LL geosemiotics comport with the conceptual framework's three core categories. Thus, further LL studies could enrich both the five themes and TPC's understandings of globalization writ large. But more such empirical methodological innovation is needed.

In addition to cities and urbanization, TPC empirical studies should investigate globalization in other relevant issue areas. These areas may include green movements, health and medicine, and geopolitical and cultural margins.

Green movements. Green movements, ranging from Buddhist environmentalism to the U.S. Green Building Council, show intricate but critical ties to globalization²⁵. Some green movements view globalization as destructive, for global investment and trade reportedly has an “uncanny correlation” with environmental degradation (Christoff & Eckersley, p. 7). Others view globalization as beneficial, for greater interconnection and mobility enables global climate summits, as well as the diffusion of clean technologies (see Gallagher, 2014). The World Bank acknowledges the validity of both views; thus, it advocates “inclusive green growth,” which mobilizes human, physical and natural capital for regional development. As an experiment in green finance, the GCF housed in Songdo undertakes a similar advocacy, and TPC scholars might investigate the rhetorical and semiotic strategies that make such movements possible.

Health and medicine. Globalization has deeply impacted health and medicine, and McMichael (2013) discusses three loci of change. The first locus is demographic. According to McMichael, globalization has altered concentrations of people around the world. These alternations may deplete the environment or entrench conditions of poverty.

The second locus is socioeconomic, which has shown positive and negative effects. Negative effects include the emergence of new infectious diseases, extended

²⁵ TPC already has extensive interest with green movements, the studies often categorized under environmental communication. See, for example, Killingsworth (2005), Mason and Mason (2012), Mathison, Stillman-Webb, and Bell (2014), Plevin (1997), Reeves (2015), Shirk (1997), and Tillery (2003).

range of extant diseases, and increased microbial resistance to antibiotics. In addition, globalization may increase food prices or workplace health risks. Positive effects, however, include improved information exchange, better coordination among international vaccination programs, and greater capacity in disaster response.

The third locus is ecological. These changes, related to demographic and socioeconomic ones, may include shortages of land, food, and biofuel. They may also include widespread acidification and deoxygenation of the environment.

TPC has already demonstrated a sustained interest in health and medicine. Special issues of *Technical Communication Quarterly* (2000, 2008), *Journal of Business and Technical Communication* (2005), *Written Communication* (2009), and *Communication Design Quarterly* (2015) have all addressed the topic, for example.²⁶ Future research might subsequently address health literacy, medical communication (including electronic health records), and telehealth, three interconnected critical practices that have grown in importance under globalization.

Geopolitical and cultural margins. TPC's understandings of globalization have tended to privilege North America and Europe. Empirical research should thus expand to include regions that, intentionally or not, have been marginalized geopolitically or culturally. The first area is the *global east*. Much of the world's future economic growth will reportedly occur in the "Middle East" (Du-Babcock & Bhatia, 2013). Despite recent economic downturns, East Asia—not China alone—may prove of continued significance

²⁶ TPC has been critical in health and medicine for centuries. To cite only one example, the technical manual *Dongui Bogam (Treasured mirror of Eastern medicine)*, published in the seventeenth century, revolutionized health literacy throughout East Asia. Healthcare providers continue to consult the manual today, though not without controversy.

to globalization scholarship as well (Du-Babcock & Bhatia). Global trade deals such as the proposed Trans-Pacific Partnership, if ratified, may further concentrate power around the Pacific Rim.

The second area is the *global south* or subaltern, which consists of oppressed, exploited, and marginalized populations in developed regions. Examples may include blue collar migrant workers, refugees, and the poor. The global south furthermore consists of resource-constrained regions, such as much of Africa. Africa has been roughly termed as globalization's "last frontier" (Wilson Center, 2013).

Teaching

Based on the five updated themes, I urge TPC to update its curricula, outcomes, methods, and assessment, as well as professional development. Constrained as they are, the dissertation findings cannot address all of these instructional dimensions. However, the dissertation findings do suggest the potential of LL as a method and assessment. LL combines textual and experiential investigation, which may allow students to explore, reflect, juxtapose, and synthesize their cultural experiences (see Ballentine, 2015, p. 302)—even of those cultural experiences are more local than global. Assessment could then revise the established, outdated tools for intercultural training (cf. Yu, 2012).

Granted, undertaking such projects often requires multilingual literacies and place literacies (see Sinclair & Blachford, 2015). Instructors should consider how to encourage these literacies, or at the least, prepare students to work as part of translation and localization teams. Maylath's continued projects with TPC translation across borders

furnish one possible model (see Hammer & Maylath, 2013; Maylath et al., 2013). But more exploration is needed in this area.

In a more basic sense, instructors should consider an assumption reflected in the conceptual framework: that effective participation in globalization requires instruction in the first place. However, few if any studies explore how TPC instructors acquire and maintain their own “global” knowledge—or how students learn autonomously. Future innovations in teaching should address how to encourage effective professional development and meaningful autonomous learning experiences.

Ethics

Based on the five updated themes, I encourage a sustained discussion of ethics in the field. Given globalization’s possible outcomes, and given TPC’s stated complicity in them (Savage & Mattson, 2011), some scholars have underlined social justice (Agboka, 2013a,b; Choudry, 2010; Ding & Savage, 2013; Savage & Mattson, 2011; Sapp, Savage, & Mattson, 2013). On a hierarchical scale, social justice may contribute to transnational civil society (see Starke-Meyerring, 2005; Starke-Meyerring, Duin, & Palvetzian, 2007). On a distributive scale, it may help protect the exploited, excluded, or under-resourced (Agboka, 2013a). TPC scholars should detail these scales further, exploring such question as these:

- How has globalization, variously understood, impacted cities around the world?
- How are rights and identities negotiated through users and designers’ symbolic choices?
- How might TPC relate to contests over inclusion, exclusion, and marginalization?

- How might TPC mediate issues of (dis)ability, access, and gender?
- How might TPC be leveraged to improve conditions in a particular place?

The answers can then inform TPC research and teaching. Yet, social justice alone may have limited implications for immediate professional practice. McKee and Porter (2010) have accordingly addressed internet research ethics, and Madson (2014) proposed principles of accountability, transparency and care. But these ethics require further development, considering how ethical meaning may vary across local communities and ideologies. Meantime, in addition to social justice, TPC can draw on intercultural information ethics, an emergent discipline. Intercultural information ethics analyzes local differences in privacy, anonymity, open sourcing, health information, risk assessment, and regulatory challenges—friction points (Himma & Tavani, 2009). Such analyses may contribute much to TPC ethics under globalization.

Final Remarks

All in all, the dissertation's two parts, despite their descriptive and generative power, are only a beginning. TPC needs much more extensive work on globalization, considering globalization's significance to the field's research, teaching, and ethics in the urban twenty-first century.

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Appendix 1

Globalization and its conceptual variations during Stage I

Conceptual variant	Number of instantiations	Sample instantiation
Global	4,919	“Although much research exists on virtual worlds, very few studies focus on professional virtual worlds used for working in a global setting” (Bosch-Sijtsema & Sivunen, 2013, p. 160).
Globalization/ globalisation	787	“Due to increasing globalization, organizations (both profit and not for profit) are faced with the need to think about effective ways of addressing their international audiences” (Hendriks, van Meurs, Korzilius, le Pair, & le Blanc-Damen, 2012, p. 122).
Globalize	116	“As markets continue to globalize, training products delivered through online media, interactive video, print documents, or a blended combination of these [43], [44] will have to effectively cross national, cultural, linguistic, and technical boundaries or be severely limited in application and marketability” (Melton, 2008, p. 202).
Globalized	95	“These writings represent India as a globalized, dynamic country, albeit with communication problems” (Raju, 2012, p. 264).
Globalism	9	“‘Workplaces are not enormous, faceless corporate bureaucracies that exist only to promote evil globalism’ (p. 33), Clark wrote” (Read, 2011, p. 364).
Globality	2	“As a matter of fact, the existing problem with English as the language of computer science is that the globality dimensions of its metaphoric applications in terms of user response is not as extensive as the utilization of the metaphoric entities” (Mehrpooya & Nowroozzadeh, 2013, p. 408).
Globally	322	“Other researchers cite the richness of research and resources resulting from the millions of World Wide Web sites and users connected globally” (Schneider & Germann, 1999, p. 40).
Globe	15	“...one element of the meta-knowledge that educators and students need to develop is how to foster social presence and team cohesion through communicative practices in online courses with learners located around the globe” (Wang & Wang, 2012, p. 436).

Table 8: Qualitative and quantitative display of Part I's initial corpus. Shown are “globalization” and its conceptual variants, the number of instantiations, and sample instantiations.

Appendix 2

Sample instantiations of the three core categories

On the three tables below, indentation indicates conceptual subordination. An asterisk (*) indicates that the category's content derives from what is conceptually subordinated. For instance, global geopolitical materiality is understood as North-South, West-Rest, and English speaking/non-English speaking sub-categories. Those sub-categories are subsequently illustrated with sample instantiations.

Materiality	Sample instantiation
Geopolitical	*
Global	"The tradition of logical positivism... is responsible, in large part, for the rigorous way in which scientists describe the physical world" (McKenna & Graham, 2000, p. 233)
Hemispherical	*
North-South	"... the industrialized nations (i.e., 'first' and 'second world' nations) can fend for themselves very well" (Agboka, 2013a, p. 30).
West-Rest	"globalization... has a unidirectional character associated with it because it implies the distinction between the West (global) and the Rest (local)" (p. 384).
English speaking/non-English speaking	"With the globalization of higher education, English has become the lingua franca of universities operating in non-English-speaking countries seeking internationalization" (Annous & Nicolas, 2014, p. 94)
Regional	*
North America	"Not only do established programs exist in North America... but new classes and curricula are beginning to serve students in a variety of nations..." (St. Amant & Nahrwold, 2007, pp. 409-410).
Latin America	"Drawing especially from Latin America's experiences of economic, political, and military domination and subjugation by its powerful northern neighbor..." (Chourdy, 2010, pp. 383-384).
Europe	"... globalization of the market and the restructuring of companies... have led to greater mobility of business and people within the borders of Europe and beyond" (Angouri & Harwood, 2008, pp. 39-40).
Africa	"... Mexico, Japan, India, Germany, Africa, and the United States... [and] the relationships among globalization, outsourcing, and technical documentation" (Jeyraj, 2009, p. 408).
Asia	"In this globalization process, a significant proportion of future economic growth (and the exchange of messages associated with this development) is projected to be centered in Asia..." (Du-Babcock & Bhatia, 2013, p. 239).

National	“... we are moving beyond the era of growing ties between nation and beginning to contemplate something beyond the existing conception of the nation-state” (Singer, as quoted in Starke-Meyerring, 2005, p. 471)
Ecological	“... rapid change in the cultural ecology of twenty-first century America” (Selfe & Hawisher, 2002, p. 263).
Subaltern	“... in many ‘developed’ sites throughout the world there is a loose confederation of indigenous peoples that refer to themselves as the fourth world... who also deserve attention” (Agboka, 2013a., p. 31).
Sociocultural	*
Social	“Thus, cosmopolitanism corresponds to the widespread social transformation in all its forms... that have been enabled and accelerated by globalization but are distinct from it” (Palmer, 2013, p. 388)
Cultural	*
Traits	“... <i>culture</i> as a noun referring to a set of passively acquired or inherited traits” (Appadurai, as quoted in Hunsinger, 2006, p. 38)
Borders	“The tacit character of culture suggests that we are perhaps most aware of it when standing on or near its boundaries” (VanMaanen & Laurent, as quoted in Duin, 1998, p. 367)
Systems	“As an open and dynamic system, culture always takes on new meanings through a group’s constant constructing of social reality in social interactions. This is especially true during the globalization process” (Wang, 2008, p. 138)
Communal	*
Locational	“According to its members, the international community is very real: ‘The international community does exist. It has an address. It has achievements to its credit’” (McKenna & Graham, 2000, p. 227)
Diasporic	“transnational connectivities” (Ong, as quoted in Ding, 2013, especially pp. 128-129)
Linguistic	“This study, through drawing the scholars’ attention to the significance of user metaphoric awareness in the receptor communities... tries to put forth the idea of globalization of metaphoric meaning in computer science...” (Mehrpooya & Nowroozzadeh, 2013, p. 403).
Scientific	“While a scientific concept alternates between periods of consensus and paradigm shifts, the whole community of scientists needs not only to re-consider their paradigms and tools, but also to give up the previous ones for the new emerging one” (Wang, 2008, p. 135).
Technological	*
Digital networks	“...there is no abyss between cultures, only individuals with varying connections to local and global networks” (Palmer, 2013, p. 348)
ICT	“...a mix of colocated and virtual teams, crossorganizational communication, and globalization—characteristics shared by ICTD projects” (Walton, 2013, p. 86)
Computers	“The defining technology of the information age is the computer”

	(Masuda, as quoted in Carnegie & Abell, 2009, p. 248).
Mobile technologies	“The collection opens a window into Japanese <i>keitai</i> that may provide solutions for writers seeking alternative driving metaphors for the use and adoption of mobile technologies and handheld devices” (Sousa, 2007, p. 334)
Text	As globalization increases, more companies are discovering the need to localize documents for readers of different cultures. One question that may arise during the localization process (when a document is adapted to meet the needs of readers in different cultures) concerns whether the organizational structure of the original text will facilitate or impede comprehension by readers in the target culture. Because readers rely on their knowledge of organizational structures that they commonly find in texts, if they encounter structures that they do not expect or are unfamiliar with—structures for which they have weak or even no structural schemata—they may have trouble comprehending the text” (Spyridakis & Fukuoka, 2002, p. 99).
Financial	*
Capital structures	“the globalization of markets” (Weiss, 1992)
Temporal tensions	*
Ideological	“... rapid global change which obscures the historical, political and economic roots of capitalist globalization... through a deeply colonial and orientalist lens” (Choudry, 2010, p. 382).
Phenomenal	“...increasing globalization of markets and industries...” (Munkvold, 2005, p. 78).
Historical	“...experts consider that the present stage of globalization began around this time because countries... representing a large proportion of the world’s economy became increasingly integrated into the global economy” (Cardon, 2008, p. 412)
Spatial tensions	*
Hierarchical	“...though the economic tide of globalization is lifting yachts, it is swamping rafts” (Hayhoe, 2006, p. 9)
Distributive	“... globalization just makes these people aware of what they don’t have, without supplying the resources to obtain something better” (Staples, 2007, p. 116).
Value tensions	“The total global system is still an industrial system with enormous productive capacity. The 19 th century lives on” (Zachry, 2007, p. 470).
Integrative tensions	“the global market” (Ngai & Singh, 2014, p. 366), “globalization of the marketplace” (Devoss, Jasken, & Hayden, 2001, p. 69), “globalization of markets and industries” (Munkvold, 2005, p. 78)
Labor structures	“The most visible manifestation of globalization today are some 70,000 transnational firms, together with roughly 700,000 subsidiaries and millions of suppliers spanning every corner of the globe” (Ruggie, as quoted in Sapp, Savage, & Mattson, 2013, p. 2)
Internal tensions	“...most technical communicators spend between 20 and 80% of their time working on teams in a variety of roles and specializations” (Hart & Conklin, as quoted in Baehr, 2015, p.

	2015).
External tensions	“The globalization that took hold in the 1980s has necessitated ever-changing organizational missions and flexible structures that have put jobs in constant jeopardy...” (Guiniven, 2001, p. 53).

Table 9: Conceptualizations and sample instantiations of materiality, a core category

Meaning	Sample instantiation
Semiotics	*
Symbols	"... the adaptation of Japanese and Korean popular cultural symbols and related consumer items has taken place differently by different elements of Chinese society" (Palmer, 2013, p. 389)
Images	"The image of a U.S.-style postal box to represent 'email'... poses problems in many countries and can indicate the cultural bias of the GUI designer" (Thayer & Kolko, 2004, p. 480).
Narratives	"The library, through design, negotiates modern and postmodern narratives of knowledge" (Carnegie & Abell, 2009, p. 256).
Discourses	"A different story emerges, however, if we go beyond the global mainstream discourses and pay attention to the grassroots globalization and underground economics surrounding transnational risk policies (Appadurai, 2000)" (Ding, 2013, p. 134).
Rhetorics	*
Indexing	"The following study is an example of intercultural rhetoric research that shows how scholars might investigate a specific indigenous language practices... to determine whether its performance in a specific setting correlates with the changing social conditions in a specific culture" (Wang, 2010, p. 94).
Facilitating	"... rhetoric is highly relevant to development contexts... involving crafting effectively persuasive messages" (Walton, 2013, p. 89).
Constructing	"... remember that race is a colonial rhetorical by-product that seeks to erase diversity in ethnicity, including the ethnicity of European Americans here in the United States" (Haas, 2012, p. 292)
Languages	*
Types	*
English	*
Dominance	"Although it focuses on language, the book revolves around broader issues such as gender differences, linguistic imperialism, globalization, Americanization, the evolving European Union, and the rise of the Chinese language online... in the context of the English-dominated world..." (Zhou, 2010, pp. 250-251).
Plurality	"... varieties of English..." (p. 381), "... many Englishes..." (p. 383), or "... English(es) in the contact zone..." (Palmer, 2013, p. 397)
Lingua franca	*
Normative	"Because English is a necessity for successful business communication in this globalization era..." (Ngai & Singh,

	2014, p. 384).
Distributive	“With the globalization of higher education, English has become the lingua franca of universities operating in non-English-speaking countries seeking internationalization” (Annous & Nicolas, 2014, p. 93)
Communicative	“Thus, are these ISO requirements forcing a U.S. or European written rhetorical tradition on cultures that more comfortably work with more oral traditions?” (Thatcher, 2006, p. 403)
Chinese	*
Regional lingua franca	“Johnson (2009) explored the effectiveness of a regional lingua franca such as Chinese for reaching out to a greater audience, quoting Fishman’s view that ‘for all the enthusiasm and vitriol generated by grand-scale globalization, it is the growth in regional interactions—trade, travel, the spread of religions, interethnic marriages—that touches the widest array of local populations’ (as cited in p. 141)” (Ngai & Singh, 2014, pp. 379-380).
Source of national identity and pride	“... for a country such as China, the use of a monolingual language serves to reinforce the national identity and pride of its people” (Ngai & Singh, 2014, p. 398)
Language contact	“Modernist approaches to communication design... ignore the culture-destructive forces of globalization, by infiltrating and eliminating languages, removing customs and ceremonies, changing indigenous cultural values and social relationships and forms of expression” (Winkler, 2009, p. 4; also Cranford, 2009, p. 426).
Ideologies	*
Epistemological	“... the power of texts to mediate knowledge, values, and action in a variety of contexts” (Rude, 2009, p. 174)
Cultural	*
Ontological	“audience-function relationships” (van der Geest & Spyridakis, 2000, p. 304), “cosmopolitanism” (Palmer, 2013), “critical race theory” (Haas, 2012).
Ethical	“In his discussion of Confucian ethics and intercultural technical communication...” (Wiles, 2003, p. 376, referring to Dragga).
Territorial	“This commentary offers a critical introduction to the forces of globalization, discourse, and democracy in that region, offering to U.S. readers a correct lens that challenges the American view of the role of writing in writing in regions where democratization is new, fragile, and even alien to the culture” (Harootunian, 2007, p. 91)
Financial	“Gianetti, along with many of the other managers who participated in our study, tended to agree with Friedman’s view of globalization as inevitable, a natural evolution of the economy” (Amidon & Blythe, 2008, p. 15).
Affect	“Full of pain and regret... [t]he more such stories I hear, the more strikingly they seem to contradict the conventional wisdom that globalization has made the world smaller” (Matthew, as quoted in Choudry, pp. 392-393)

Identity	*
Identity-cum-place	“Spaces and interfaces intersect with modern and postmodern narratives as the library vies to establish its identity as a legitimizer and purveyor of knowledge in the information age” (Carnegie & Abell, 2009, p. 242)
Identity-cum-text	“Rather, intertextual here should imply the connections between cultural identity and extracultural factors, interactions that have not been well documented” (Hunsinger, 2006, p. 36).
Identity-cum-text and –place	“In globalization, Appadurai (2000) noted ‘the apparent stabilities that we see,’ such as culture or cultural identity, ‘are, under close examination, usually our devices for handling objects characterized by motion’ (p. 5). Cultural identity for Appadurai is thus a confluence of mobile and shifting streams of textuality—of political, ideological, economic, or ethnographic texts” (Hunsinger, 2006, p. 39).
Citizenship as rights	“...the literature has addressed themes related to the larger issue of human rights. Such themes include, among others, social justice and globalization; critical responses to development and globalization; critical race theory and whiteness studies; and discourses of diverse publics and indigenous knowledges” (Sapp, Savage, & Mattson, 2013, p. 1)
Citizenship as regulations	“Some nations, for example, actively monitor the online information their citizens’ access or prevent citizens from accessing certain internet-based materials. Globalization, however, means effective internet use requires an understanding of the monitoring and filtering activities used around the world” (St. Amant & Rife, 2010, p. 413)

Table 10: Conceptualizations and sample instantiations of meaning, a core category

Practice	Sample instantiation
Geopolitics	*
Governance	*
Supra-political	“This new sense of citizenship also includes an understanding of emerging global governance and civil society institutions and their local-global interplay. As globalization researchers...” (Starke-Meyerring, Duin, & Palvetzian, 2007, p. 145).
Sub-political	A different story emerges, however, if we go beyond the global mainstream discourses and pay attention to the grassroots globalization and underground economics surrounding transnational risk policies (Appadurai, 2000)... Subpolitics, or “politics outside and beyond the representative institutions of the political systems of nation states,” set ‘all areas of society in motion’...” (Ding, 2013, p. 134).
Laws and policies	*
Global	“As TC programs build their global partnership networks, they knowingly or unknowingly participate in the globalization of higher education... subject to global trade agreements, which are designed to accelerate the global distribution of services, in particular the GATS currently being negotiated by the WTO” (Starke-Meyerring, Duin, & Palvetzian, 2007, p. 146).
Regional	“The globalization of business, the effect of NAFTA, and the use of US information technology are having a definite effect on Mexican Business documents” (Tebeaux, 1999, p. 77).
National	*
Copyrights	“Copyright law is perhaps the greatest friction point affecting the flow of ideas and information. What rights individuals have over the content they create and how that content can be legally shared and used vary from nation to nation. When individuals try to share copyrighted materials across borders, legal systems can create friction that slows or stops the exchange” (St. Amant & Rife, 2010, p. 249).
Privacy laws	“Similarly, perspectives on privacy rights and who legally owns and can use an individual’s personal information (i.e., content) vary from one country to another. These variations can create content management problems (i.e., friction) when such information needs to be transmitted across borders to be compiled, collated, or archived” (St. Amant & Rife, 2010, p. 249).
Economics	*
Dispersion	“Current trends toward globalization and the functional integration of dispersed economic activities... have made the ability to transmit information between external business partners and within multiunit companies essential for enterprises in the postindustrial knowledge economy (Castells, 1996; Dicken, 2007; Drucker, 1994). In turn, these trends are increasing the spatial distribution of collaborating partners and raising the need for them to travel long distances in

	order to meet face-to-face (FTF)” (Dentadli, Julsrud, & Hjorthol, 2012, p. 66)
Liberalization and deregulation	“In the current environment characterized by rapid advance in information technology, globalization, liberalization, and greater reliance on knowledge for value creation, it has become the government’s belief that the future economic prosperity of Malaysia no longer rests on the export of primary products but rather on the fruits of high technology. Her plans to leapfrog into the post-industrial age by using information technology as a strategic lever for national development and global positioning led to the birth of the MSC” (Mohan, Omar, & Aziz, 2002, p. 267).
Privatization	“McNally noted that the commodification of biodiversity (seeds, etc.) and the privatization of water—key components of neoliberal globalization—have led to more poverty and alienation in the third world” (Choudry, 2010, p. 394).
Dominance and subjugation	“Drawing especially from Latin America’s experiences of economic, political, and military domination and subjugation by its northern neighbor, Boron argued that nation-states, along with transnational corporations, are central players in today’s imperialism, a process that needs to be retheorized in order to inform effective resistance to it” (Choudry, 2010, pp. 383-384).
Business and labor	*
Competition	“Globalization also causes a great deal of stress for workers. Competition from companies that use inexpensive labor in developing countries may cause U.S. companies to engage in fierce struggles for customers that can have drastic consequences for workers. Sometimes the response to global competition is an attempt to contain costs, either by slashing or freezing payrolls. Other times the response is technological, as when companies decide to automate their production processes. Either move can make companies more competitive, but both threaten the jobs of workers within the companies (Reinhold 1996)” (Primm, 2005, p. 451)
Collaboration	“In fact, globalization ‘could usher in an amazing era of prosperity, innovation, and collaboration, by companies, communities, and individuals’” (Friedman, as quoted in Ballentine, 2008, p. 336).
Exploitation	*
Resource	“We can have important, responsible roles to play in making the world a better place for people, not simply for corporations, for the environment, not simply for the exploitation of resources, but at this point we are not thinking in those terms. Teaching, research, and theory need to include such areas as postcolonial theory, social theory, and globalization studies” (Dayton & Bernhardt, 2004, p. 40).
Value	“Many of Berman’s examples are humorous; some are downright offensive. Three significant targets for his anger are exploitation (of women, children, and underdeveloped countries), overconsumption encouraged by advertising, and the damage to the environment and local cultures that globalization has caused” (Veltos, 2009, p. 411).
Symbolic	“Furthermore, whereas the new Seattle Public Library can be negatively associated with globalization and corporate exploitation

	of civic space (for example, the Boeing room), the neoclassical library has negative symbolic associations where identity and diversity are at stake: the ‘whiteness’ of neoclassical buildings has been problematically associated with a singular, paternalistic (if not imperialistic) view” (Carnegie & Abell, 2009, p. 251)
Distributed work	*
Causes	“As globalization and popularity of virtual teams increases, computer tools that can support distributed communication have become commonplace” (Zhou, 2005, p. 147)
Challenges	“Outsourcing, offshoring, and globalization, enabled by a dynamic network of communication technologies, have altered the physical and social landscapes of our working lives. One of the most notable shifts is the rapid rise of distributed work, in which more and more of us work not in isolation but in teams with colleagues across the country and around the globe. Moreover, rather than being stable long-term collaborations, these teams are often flexible communities of practice, formed in response to specific needs and dissolved once the goals have been achieved. Such structures call all workers to continually adapt to and communicate with new colleagues, negotiate new organizational structures, and learn new skills” (Paretti, McNair, & Holloway-Attaway, 2007, p. 328).
Forms	“The single biggest thing that is happening is simply the export of all those deskilled jobs... to poor countries. This is an enormous phenomenon. When people talk about postindustrial society, the information age, they are naïve because there is just as much manufacturing; it just isn’t in Detroit any more. In fact, there is more of it” (Zachry, 2007, p. 470).
Technology	*
Automation	“Other times the response is technological, as when companies decide to automate their production processes” (Primm, 2005, p. 451)
Facilitation	“ICTs have facilitated many of the trends in organizing work, such as globalization, outsourcing, cross-functional project teams, and (at times) flattened bureaucracies” (Amidon & Blythe, 2008, p. 14).
Access	“His insistence that everyone is wired and that social economic and political hierarchies are flattening as a result repeat a common fantasy of procapitalist globalization advocates. Much of Friedman’s thought was framed by his obsession with technology access and connectivity via communication technology as an indicator of improving social equity and political freedom and his initial apparent surprise that the people he has met in the third world have mobile phones, use the Internet, follow U.S. pop culture, and are connected to global production chains through outsourcing and other arrangements” (Choudry, 2010, p. 390)
Mobility	*
Technological mobility	“Hewett and Robidoux (2010) also recognize the need for organizations to meet changing customer demands. Technological advances such as Web-ready cell phones, they suggested, enable users ‘to demand information in multiple formats and for a range of

	media From Web pages and online help to mobile devices, these [digital] formats present information in short, content-rich chunks' (p. 2)" (Andersen, 2011, p. 388).
People mobility	*
Individuals	"In the last several decades, changes such as increased globalization and rapid technological advancements have precipitated an organizational restructuring that has forced those in careers studies to reexamine traditional career assumptions... As firms downsize and flatten managerial structures, individuals are becoming more mobile, by choice or chance... Individuals are increasingly moving both intraorganizationally, across projects and jobs within an organization, and interorganizationally, across employers and even occupations" (Jablonski, 2005, pp. 14-15).
Communities	"... what Appadurai (2000) called 'grassroots globalization' wherein those operating from 'below' were 'concerned with mobilizing highly specific local, national, and regional groups on matters of equity, access, justice, and redistribution' (p. 15)" (Frost, 2013, p. 57).
Idea mobility	"One specific response to the globalization of the world's economies in recent decades has been a shift in the focus of international intellectual and cultural exchange toward a heightened interest in issues of business and technology" (Dautermann, 2005, p. 141).
Sociocultural	*
Similar/different	*
Homogenization	"Along those same lines, Machida (2012) posited that one effect of globalization is that it can create homogenization (one culture) homogenization (one culture)..." (Martinez, 2015, p. 130).
Ideological	"You could just see the fantasy, and you have to believe that the people who prepared the report watched a lot of American TV. They saw the future there" (Zachry, 2007, p. 471).
Material	"When people talk about postindustrial society, the information age, they are naïve because there is just as much manufacturing; it just isn't in Detroit anymore. In fact, there is more of it.... That phenomenon has all kinds of effects, essentially homogenizing effects. It makes the world more similar" (Zachry, 2007, pp. 470-471).
Heterogenization	*
Technological	"Information literacy, for example, was an approach designed to engage with a "growing heterogeneity and complexity of information, information resources and information structures" after digital technology fundamentally altered classrooms, libraries, stores, government offices (Spiranec & Zorica, 2010), and even business writing (Katz, Haras, & Blaszczyński, 2010)" (Sinclair & Blachford, 2015, p. 406).
Environmental	"Marling insists that a number of local cultural constraints such as 'language, food, habitation patterns, educational institutions, attitudes toward race and

	honesty—resist change in general, and resist the American face of globalization especially’ (p. viii)” (Ballentine, 2015, p. 298). -
Epistemological	“... scientists, anthropologists, political scientists, historians, and educators have all tended to have vastly different ideas about what globalization means, disagreeing about whether it is good or bad” (Sinclair & Blachford, 2015, p. 406)
Ontological	“But soldiers, sailors, farmers, and missionaries have all tended to have vastly different experiences with globalization in the workplace, and ... the groups of people and cultures connecting and generating globalization are amorphous, heterogeneous, and porous” (Sinclair & Blachford, 2015, pp. 406-407).
Hybrid	“... hybridized displays of social transformation... are just as much constitutive parts of the identity of this new social group as the economic circumstances that created a demand for the services of these bar hostesses” (Palmer, 2013, pg. 389)
Polar	“The ministers of higher education, however, are diligent in their rhetoric in Bologna documents to avoid polarization...” (Martinez, 2015, p. 131).
Inclusive/exclusive	*
Inclusion	“The new movements of globalization, digital communication, and World Englishes. . . pose fresh questions that are yet to be addressed. However, grappling with these concerns has engendered realizations on the need for local situatedness, global inclusiveness, and disciplinary collaboration that are of more lasting value” (Canagarajah, 2006, p. 9).
Legitimation	“...legitimation of global corporate rule as a somehow evolutionary, organic process, supposedly driven by technological advances and human imagination rather than an imperative of corporate imperial dominance” (Choudry, 2010, p. 385)
Acculturation	“In other words, without an acculturation strategy that promotes biculturalism, travelers may default to a mono-cultural approach or the continued identification with their own cultural heritage” (Ballentine, 2015, p. 298).
Othering	“The results of the study give us an indication that the manufacturers and designers were thinking in internationalizing or globalizing terms because, by designing a document and by making only minimal adjustments at the developer’s site, they were taking a product from its cultural context and inserting it into a context much different from the source culture. Doing this raises the danger of universalizing and othering users” (Agboka, 2013b, p. 41).
Marginalization	“Yet, the idea of a universal, international, or global standard, which appeals to universal human values, can marginalize or ‘other’ some people and groups, if they do not reflect the way groups express themselves” (Agboka, 2013, p. 41).
Communication	*
Macro-practices	*
Creolization	“In these processes we can see that forces such as increased tourism and more frequent information exchange with other Creole populations enabled by modern technology have played important roles in the social process of creolization. While these forces are

	definitely connected to globalization, the source of social transformation experienced by these people cannot be equated with globalization. Rather, the social transformation, creolization (a form of cosmopolitanism) happened (and is happening as we speak) due to increased contact with different cultural influences enabled and accelerated by globalization” (Palmer, 2013, p. 389).
Indigenization	“Thus, cosmopolitanism corresponds to the widespread social transformation in all its forms, experienced within the context of openness in the globalized world, that have been enabled and accelerated by globalization but are distinct from it. Depending on the context, the type of social transformation taking place can take different forms such as... indigenization... but all of these processes result in outcomes of new social formations and cultural products” (Palmer, 2013, p. 388).
Hybridization	“Because ‘the rapid pace of change in both applied and conceptual knowledge in global information economies requires a hybrid sort of learning’ (p. 140), they propose a ‘corporate-university hybrid,’ which takes the best—practice and theory—from both ‘parents’ to create a healthy cross robust enough to withstand, even to thrive within, the global information economy” (Nahrwold & Bauer, 2004, p. 119)
Meso-practices	*
Terminological tensions	*
Cross-cultural comm.	“Some scholars (e.g., Dryud, 2002) have proposed that identity in cross-cultural communication is probably insubstantial; however, a changing perspective of multiculturalism and globalization and the trends in scholarship I described suggest that the issue of converging business communication needs merits exploration” (Goby, 2007, p. 427)
Intercultural comm.	“The general sense is that intercultural communication, like document and web design, is destined to become central to our programs. As we contemplate this possibility, it’s sobering to consider comments Starke-Meyerring made in her 2005 <i>Journal of Business and Technical Communication</i> article on ‘Meeting the Challenges of Globalization’” (Schnakenberg, 2009, p. 188).
Transcultural comm.	“From now on, I will use the term transcultural risk communication to refer to the multilevel, multidirectional risk communication processes among national, institutional, professional, communal, and virtual key players via a wide range of media platforms” (Ding, 2013, p. 129).
Translational scales	*
Standardization	“Corporate Standards—This group included any requirement that had to be done by all Information Development teams, regardless of their products or the types of content they were producing. These corporate standards included legal requirements, translation and globalization requirements, and accessibility requirements. In many cases, the guidelines and collateral for these standards were developed outside of the ID community, and were referenced by the ID standards” (Vitas, 2013, pp. 311-312).
Translation	“Last, in the translation classes, besides learning to translate texts

	on international trade from English to Chinese or vice versa, students can learn about localizing and globalizing technical communication documents or preparing documents for translation. These are important lessons for all of today's technical communicators but are especially so for Chinese technical communicators, who are likely to be involved in future localization and globalization projects because of their bilingual skills and cultural backgrounds" (Yu, 2011, p. 88).
Localization	"Localization, however, is not a simple process, and it requires more than writing for translation. Rather, localization generally involves a holistic 'overhaul' of an item, including everything from the design and the size of graphics to the length of printed pages and the kinds of links found on websites... Perhaps the best resource technical communicators can use to achieve this end is John Yunker's recent book, <i>Beyond Borders: Web Globalization Strategies</i> " (St. Amant, 2003, p. 242).
Micro-practices	*
Rhetorics	"Once bounded, a field of study gets busy reproducing and sustaining itself. The apparent pluralistic virtues of interdisciplinarity gives RST both a ready-made argument for disciplinary agnosticism and the ability to hold off decisions about where it will locate. Does RST belong to NCA rhetoricians or is it a global citizen free to roam (Simons, "Globalization" versus Fuller, "Globalization"; and Simons, "Rhetorical" versus Keith, Fuller, Gross, and Leff)? Is contemporary rhetorical theory becoming a master trope provincially worried about its disciplinary impact and not its veracity (Cherwitz and Hikins)? Or is rhetoric a 'vocabulary for redescribing communicative phenomena' (Schiappa et al.)? Rhetoric contemplates a disciplinary home—Communication, English, Composition, Technical Communication— while considering its own disciplining as RST or, perhaps, 'captology' (not to be confused with captation; see Fogg; Latour, Science)" (Collier, 2005, p. 299).
Semiotics	"Are new cultural patterns in visual communication emerging, for example, within hybrid cultures that develop as a result of globalization?" (Brumberger, 2014, p. 112).
Education	*
Scholarship	*
Ethnographic	"With ongoing globalization, IPC must address three disciplinary needs: the need for additional indigenous theory, for greater attention to subjectivities (Gudykunst, Lee, Nishida, & Ogawa, 2005, pp. 25-26), and for more data grounded in real-life intercultural encounters (Agboka, 2013; Carbaugh, 2007). Digital ethnography can help address these three needs and, relatedly, provide an essential, emics-then-etics counterbalance to Thatcher's (2010a) proposed etic-then-emic approach" (Madson, 2014, p. 78).
Community based	"Influenced by accelerated globalization (Starke-Meyerring, Duin, & Palvetzian, 2007), as well as a longstanding connection to social responsibility (Miller, 1979), a growing body of scholarship in technical communication aligns with tenets of community-based

	research” (Walton, Zraly, & Mugengana, 2015, p. 45)
Clinical	“Bailey, Cruickshank, and Sharma (2006) contend that these regulations and guidelines, together with stronger intellectual property protection in developing countries, are contributing to the globalization of clinical research” (Batova, 2010, p. 270).
Internet	“As Starke-Meyerring, Duin, and Palvetzian (2007) noted, “As workplace professionals and as citizens, technical communicators increasingly experience a fundamentally changed communication environment as a result of globalization” (p. 141)—and, we would add, particularly as a result of Internet based global communications” (McKee & Porter, 2010, p. 283).
Pedagogical	“Conceptual pedagogical research steps back from specific classroom practices to reflect on and critique assumptions and to offer new concepts. Productive lines of conceptual inquiry have been literacy (What makes a person literate in the 21st century?), technology (How does technology affect course methods and content? How can we adapt our teaching for contemporary learners and learning situations?), globalization (What communication practices enable people in different cultures to work collaboratively and to understand discourse originating in one culture but used in another?) and ethics (What are the ethical challenges in writing in nonacademic settings, and how can students be taught to recognize and respond appropriately to these challenges?) These questions are contemporary versions of the central research question” (Rude, 2009, p. 196).
Pedagogy	*
Curricula	“As publishers integrate international issues into professional writing textbooks, we must analyze how curricular globalization is presented to students. Textbooks examined here position international students as clients, consumers, and exotics who present barriers to effective communication” (Miles, 1997, p. 179).
Outcomes	*
Skills	“But skills such as those outlined by Pink, Johnson-Eilola, Ames, and Florida are exactly what should characterize the workforce of the future, as Brown, Green, and Lauder argue in <i>High skills: Globalization, competitiveness, and skillformation</i> (2001). After tracing the intersection of socio-political systems and the world of work, the authors conclude in their final chapter that ‘Changing models of economic efficiency have placed more emphasis on key skills including communication, teamwork, problem solving and creativity’ (258)” (Bekins & Williams, 2006, p. 288).
Literacies	“To summarize, then, globalization presents professional communicators with a number of challenges, ranging from communication in digital networks to the ideological struggles involved in the shaping of an emerging global civil society. To address these challenges, professional communicators need to have a conceptual framework for what being literate means in the context of globalization” (Starke-Meyerring, 2005, p. 487).
Methods	“Students do need opportunities to explore and reflect on their own, but they should be aided by readings and writing prompts that ask them to juxtapose and synthesize their cultural experiences”

	(Ballentine, 2015, p. 302)
Assessment	“Such programs address not only the specific expectations of a particular national marketplace but also prepare these students for a workplace powered by globalization and international outsourcing. In some instances, moreover, international and online educational programs morph into technical communication e-classrooms comprised of students from a range of nations. For all of these reasons, program review and assessment practices in technical communication must be regularly evaluated to determine how well they help us keep up with the continually changing nature of the field” (St. Amant & Nahrwold, 2007, p. 409).
Hidden practices	*
Existential	“In many cases, such as globalization, the phenomena are not observable at all. Indeed, their very existence may be a matter for debate” (McKenna & Graham, 2000, p. 233)
Theoretical	“...globalization is a multi-dimensional thing; a process; a state of historically specific ‘being’ without a beginning or an end; an autonomous, active, phenomenologically extant agent with a specific speed and trajectory that is affected by the quality of communication, and which directly creates the fate of persons” (McKenna & Graham, 2000, p. 246).
Political	“As Merry says, ‘Understanding how human rights circulate and are transplanted raises larger questions about how cultural life is changing in response to globalization and its deepening inequalities in wealth and power. It is not clear how the spread of human rights institutions and discourses is reshaping these inequalities’ (p. 39)” (Ding & Savage, 2013, p. 6).

Table 11: Conceptualizations and sample instantiations of practice, a core category

Appendix 3
Additional cataloguing of Central Park's LL

Discursive category	Description	Common materializations	Photograph identification number
Regulatory	Regulatory discourses serve to mediate mobility, and in particular vehicular or pedestrian traffic. They also serve to “inform the public either about conditions or regulations that are present in that place” (Scollon & Scollon, 2003, p. 184)	Warnings along the canal and in vehicles, prohibitions, IFEZ logos, library guidelines, park guidelines, Tri-Bowl guidelines, ground markings for pedestrians and cyclists, and regulations on pet behavior.	3962, 3974, 3999, 4001, 4013, 4014, 4015, 419, 4026, 4027, 4033, 4034, 4038, 4040, 4041, 4048, 4049, 4052, 4053, 4055, 4057, 4065, 4066, 4069, 4070, 4076, 4077, 4084, 4086, 4089, 4090, 4101, 4102, 4106, 4107, 4108, 4117, 4123, 4126, 4132, 4133, 4148, 4150, 4154, 4155, 4169, 4170, 4172, 4173, 4174, 4176, 4179, 4181, 4202, 4212, 4219, 4224, 4242, 4244, 4246, 4257, 4259, 4260, 4268, 4269, 4278, 4280, 4286, 4287, 4293, 4302, 4305, 4306, 4307, 4311, 4313, 4316, 4321, 4323, 4330, 4333, 4334, 4335, 4340, 4341, 4344, 4347, 4349, 4352, 4365, 4371, 4383, 4384, 4385, 4386, 4387, 4388, 4389, 4390, 4391, 4401, 4403, 4405, 4406, 4410, 4415, 4456, 4457, 4474, 4481, 4482, 4487, 4490, 4491, 4495, 4496, 4497, 4500, 4519, 4520, 4526, 4530, 4535, 4537, 4541, 4547, 4556, 4558, 4561, 4563, 4563, 4566, 4570, 4572, 4574, 4577, 4579, 4588, 4591, 4593, 4595, 4597, 4598, 4600, 4603, 4607, 4617, 4620, 4621
Infrastructural	Infrastructural discourses support a city's essential resources, such as roads, electricity, gas, and water. The first, written for a general viewership, is public labels. The second form, written for workers who maintain city resources, is public functional notices.	Drainage covers, maps of Central Park, construction signs, trash can labels, public functional notices on ring life preservers and power boxes, public labels on trees and flowers, locational signs, instructions on exercise equipment, building facades, monument inscriptions, public event notices on banners, street signs	3963, 3964, 3965, 3966, 3967, 3968, 3969, 3970, 3971, 3972, 3975, 3976, 3977, 3979, 3981, 3982, 3983, 3984, 3985, 3986, 3987, 3988, 3989, 3990, 3992, 3994, 3995, 3996, 3998, 4000, 4002, 4007, 4011, 4018, 4020, 4023, 4024, 4025, 4030, 4031, 4033, 4034, 4036, 4037, 4039, 4043, 4050, 4051, 4055, 4058, 4059, 4060, 4062, 4063, 4064, 4067, 4068, 4070, 4073, 4074, 4075, 4079, 4080, 4081, 4082, 4085, 4087, 4091, 4092, 4093, 4096, 4097, 4098, 4099, 4100, 4101, 4103, 4105, 4106, 4109, 4110, 4111, 4113, 4116, 4117, 4127, 4128, 4130, 4131, 4132, 4133, 4141, 4143, 4145, 4146, 4147, 4149, 4151, 4152, 4153, 4156, 4157, 4158, 4162, 4164, 4166, 4167, 4168, 4175, 4177, 4180, 4182, 4183, 4184, 4185, 4188, 4189, 4190, 4191, 4192, 4193, 4194, 4195, 4196, 4198, 4199, 4200, 4201, 4203, 4204, 4205, 4206, 4207, 4209, 4213, 4214, 4217, 4218, 4220, 4221, 4222, 4223, 4225, 4226, 4227, 4228, 4229, 4230, 4231, 4232, 4233, 4234, 4235, 4237, 4238, 4239, 4240, 4241, 4243, 4245, 4247, 4248, 4249, 4250, 4251, 4256, 4259, 4261,

			4265, 4266, 4267, 4271, 4275, 4276, 4277, 4281, 4282, 4283, 4284, 4285, 4289, 4290, 4293, 4294, 4295, 4296, 4298, 4299, 4300, 4301, 4302, 4303, 4310, 4311, 4312, 4313, 4314, 4315, 4317, 4318, 4319, 4320, 4322, 4325, 4329, 4332, 4333, 4334, 4335, 4336, 4342, 4343, 4346, 4348, 4351, 4352, 4354, 4359, 4360, 4362, 4363, 4366, 4367, 4369, 4372, 4373, 4374, 4375, 4378, 4379, 4381, 4382, 4385, 4392, 4393, 4394, 4397, 4398, 4402, 4404, 4407, 4409, 4411, 4414, 4415, 4417, 4418, 4419, 4420, 4421, 4422, 4423, 4424, 4425, 4426, 4427, 4448, 4449, 4450, 4451, 4452, 4453, 4454, 4455, 4459, 4462, 4463, 4466, 4467, 4468, 4470, 4471, 4472, 4475, 4476, 4477, 4480, 4483, 4484, 4487, 4488, 4492, 4493, 4494, 4498, 4499, 4501, 4502, 4503, 4504, 4505, 4506, 4507, 4508, 4509, 4510, 4511, 4512, 4513, 4514, 4515, 4516, 4517, 4518, 4521, 4522, 4523, 4524, 4525, 4527, 4528, 4529, 4531, 4532, 4533, 4534, 4536, 4537, 4545, 4546, 4550, 4551, 4559, 4560, 4562, 4563, 4564, 4565, 4567, 4570, 4571, 4572, 4573, 4575, 4578, 4580, 4581, 4582, 4583, 4584, 4585, 4586, 4587, 4589, 4590, 4594, 4601, 4602, 4604, 4605, 4607, 4608, 4611, 4612, 4613, 4614, 4618, 4619, 4622
Commercial	Commercial discourses indicate the presence of businesses or their products (Scollon & Scollon, 2003, p. 187). They may furthermore indicate financial contributions.	Inscribed handles, commercial artwork, vending machines, library books on display, impressions and badges of brand names (on boats, canoes, flower pots, security cameras, etc.), commercial posters for IFEZ, business lettering on buildings, branded tree grates, monument inscriptions that commemorate the GCF	3973, 3978, 3982, 3984, 3991, 3993, 3996, 3997, 4003, 4004, 4005, 4006, 4008, 4009, 4010, 4012, 4016, 4017, 4021, 4025, 4029, 4032, 4035, 4042, 4045, 4046, 4047, 4061, 4078, 4083, 4094, 4095, 4103, 4112, 4114, 4115, 4118, 4119, 4120, 4121, 4122, 4124, 4125, 4129, 4131, 4134, 4142, 4144, 4159, 4163, 4165, 4178, 4170, 4187, 4208, 4209, 4210, 4211, 4215, 4216, 4236, 4252, 4253, 4254, 4255, 4257, 4258, 4262, 4264, 4270, 4291, 4297, 4299, 4304, 4308, 4309, 4310, 4324, 4326, 4327, 4328, 4329, 4335, 4338, 4339, 4341, 4345, 4348, 4352, 4353, 4355, 4356, 4357, 4360, 4368, 4376, 4377, 4378, 4395, 4396, 4412, 4413, 4428, 4429, 4430, 4431, 4432, 4433, 4434, 4435, 4436, 4437, 4438, 4439, 4440, 4441, 4442, 4443, 4444, 4445, 4446, 4450, 4460, 4461, 4464, 4465, 4473, 4485, 4486, 4489, 4519, 4538, 4539, 4540, 4542, 4543, 4544, 4546, 4548, 4549, 4553, 4555, 4557, 4562, 4576, 4604, 4606, 4609
Transgressive	Transgressive discourses are those that are	Abandoned newspapers, soda cans, and water	3980, 4028, 4044, 4046, 4054, 4056, 4071, 4072, 4088, 4160, 4161, 4171, 4272, 4274, 4279, 4288, 4361, 4370, 4385, 4399, 4400,

	out of place, often revealed in marginalized placement or superimposition (Scollon & Scollon, 2003, pp. 188-189)	bottles, lettering on office buildings, stickers on power boxes	4447, 4469, 4478, 4552, 4554
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Table 12: Central Park's LL, as captured in Part II of the dissertation. Because this study was qualitative, the photograph identification numbers are displayed in lieu of counts.

Appendix 4

Interdiscursive processes materialized elsewhere in Songdo

Interdiscursive process	Sampling area	Materialization	Photograph identification numbers
Financial territorialization	Community Center	Yeonsu logo on an air injector	0078
Monumentalization	United Nations	Power box that celebrates the 2014 Asian games, in Incheon	2814
Embodiment (participative)	NC Cube Walk	Building panels with photographs of human models	2930, 2933, 2934, 2943, 2945, etc.
Embodiment (representative)	Yonsei University	Trash cans with male/female icons	1326, 1330, 1737, 1774, 1934
Evocation of place	Michuhol Park	Banners for the foreign universities operating there	0884, 0889, 0902, 0904, 0922, etc.
Code switching (code mixing)	Subway	Handrails inscribed with Hangeul and braille	2437, 2438, 2458, 2459
Code switching (code meshing)	NC Cube Walk	Building façade for “Café Teateacaca”	2922
Gatekeeping	Community Center	Parking information ground sign	008, 0195, 0198
Selective representation	Michuhol Park	Park octograms invoking Incheon’s historical identity	0208, 0257, 0261, 0545, 0784, etc.
Scientific classification	Residential block	Public labels for trees and flowers	1849, 1850, 1852, 1853, 1854, etc.
Reinforcement of proximity	Convensia	Banners with an airplane icon, suggesting the Incheon International Airport	2296, 2998
Hazard identification	Residential block	Warning signs for falling, posted on a small ledge	2036, 2037, 2038, 2039, 2040, etc.
Safety infrastructure location	Subway	Cabinet labels for medical/safety masks	2753, 2754, 2755, 2756, 2757, 2758
Surveillance notification	Global University Campus	Surveillance notice	0845, 0862, 0875, 0876, 0914, etc.
Code preference	Convensia	Traffic cones, written exclusively in Hangeul	2303, 2301

Table 13: Preliminary data analysis of interdiscursive processes materialized outside of Central Park, including the sampling areas and photograph identification numbers.