Technical and professional communication (TPC) is produced in all languages and by people of all cultures, and TPC discourses are constantly moving across borders and between cultures. Thus, it is essential for all technical communicators to understand international and intercultural communication.

The term international communication was criticized for its nation-centric and Anglo-centric assumptions and its use of individual countries as the unit of analysis in studying global communication. Many factors have introduced both changes in and challenges to international communication, including but not limited to globalization, global trade, global cinema, global media, the rise of social media and the networked society, international education, transnational travel, contact zones, hybrid cultures, and the tendency to use the deficit model when examining communication and rhetorical practices in non-Western cultures (Castells, 1996; Mao, 2003; Singh & Doherty, 2004). To provide new nuanced analysis of communication across cultures, the term intercultural communication has become widely accepted today.

Early studies borrowed extensively from cultural heuristics and cultural dimension theories from intercultural communication and employed individual nation states as the unit of analysis (Marcus, 2005; Spyridakis & Fukuoka, 2002). Increasing attention has been shifting from sole dependence on, and oftentimes over-simplistic application of, cultural heuristics for individual nation states, which Ulrich Beck (2003) called “methodological nationalism,” to alternative and non-nation-centric ways to conceive and analyze cultures at different levels (Ding, 2013; Hunsinger, 2006; Scott, 2006; Starke-Meyerring, 2005; Starke-Meyerring & Wilson, 2008; Sun, 2006, 2012; Thatcher, 2010).

The Oxford English Dictionary defines the term intercultural as “taking place between cultures, or derived from different cultures,” with the prefix inter- meaning “between” and cultural meaning “of or relating to culture” (Oxford University Press, n.d.). Back in 1871, British anthropologist Sir Edward Burnett Tylor defined culture as a “complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society” (p.1). For Clifford Geertz (1973), culture is “a historically transmitted pattern of meaning embodied in symbols” (p. 89). Geert Hofstede (1991) defined culture as “the collective programming of the mind that distinguishes the members of one group or category of people from others” (p. 5). Fred Dervin (2011) distinguished between “liquid” and “solid” interculturality by defining solid
interculturality as believing in “resolutely distinct human essences,” which is featured by uncritical and systematic use of “the primordial and basic concept of culture” (pp. 38-39). Liquid interculturality, in contrast, emphasizes the “inter” as in interaction and interconnectedness rather than the “cultural”.

Exploring “the cultural dimensions of globalization,” Arjun Appadurai (1996) criticized the noun form of culture, which sees culture as a substance and uses nation states as the unit of analysis. He advocated shifting to the adjectival form of the word: cultural, which explores “the conscious mobilization of [situated] cultural differences in the service of a larger national or transnational politics” (p. 13).

Klaus B. Jensen (2011) defines three types of communication, namely, the embodied face-to-face communication, the technically reproduced mass communication, and networked communication enabled by digital technologies. Originating from intergroup communication, intercultural communication theories initially focused on embodied face-to-face communication before expanding their reach to networked communication (Chen, 2017). Four factors led to the development of the so-called global village and increasing intercultural communication: improvements in transportation technology and communication technologies, the economic globalization, and accelerated immigration (Samovar & Porter, 1997). Working together, these developments made possible technology-mediated intercultural communication, which increasingly takes place virtually among individuals.

To examine cultural variability in communication, different theories have been proposed to perform analysis at the societal level and at the individual level. Edward T. Hall (1976) proposed low–high context communication theory to examine direct and indirect communication practices. Hofstede (1980, 1991, 2001) identified six dimensions of cultural variability: individualism–collectivism, uncertainty avoidance, power distance, masculinity–femininity, long–term vs. short–term orientation, and indulgence vs. restraint. William B. Gudykunst and his co-authors (2005) categorized intercultural communication theories into five themes: effective outcome, accommodation and adaptation, identity negotiation, communication network, and acculturation and adjustment.

Various approaches have been taken to examine intercultural communication practices. Judith Martin and Thomas Nakayama (1997) identified three approaches to studying intercultural communication, namely, social science, interpretive, and critical approaches. The social science approach employs methods such as survey and observation to identify cultural variables and to describe and predict behavior. The interpretive approach, used mostly in sociolinguistics and anthropology, employs participant observation, field study, and ethnography to examine communication in different cultural contexts. The critical approach, in contrast, focuses on “macrocontext,” namely, political and social structures, historical contexts, and power relations, in conducting textual analysis of cultural products (Martin & Nakayama, 1997, p. 35). Similarly, Gudykunst et al. (2005) emphasized the need for “indigenous theories developed by scholars outside the United States” and the inclusion of power in intercultural communication theories (p. 26).
Compared with the over-two-decade development of intercultural communication, the field of intercultural professional/technical communication began to develop only fairly recently because of the quick integration of the global economy and the globalization of the workplace. Many existing publications on intercultural technical communication still rely on intercultural communication theories such as cultural variables and face concepts in their analyses and focus on either interpersonal or organization communication processes (Constantinides et al., 2001; Gould, 2005; Marcus, 2005). This over-reliance on intercultural communication theories is particularly strong in pedagogical discussion of intercultural technical communication.

Early publications about pedagogical approaches took the information acquisition approach and emphasized the heuristic view of culture that sees culture as nation-centric traits (Andrews, 1996; Beamer, 1992; Chapel, 1997; DeVoss et al., 2002; Miles, 1997; Thrush, 1993; Tippens, 1993). In their analysis of professional and technical communication textbooks, both Libby Miles (1997) and Dânielle DeVoss et al. (2002) highlighted the limited, oversimplified, and problematic treatment of intercultural communication as problems to be overcome and the reliance on linear transmission models to teach such competencies. Another dominant theme in pedagogical experiments focuses on strategies to sensitize students to cultural differences. For instance, Emily Thrush (1993) calls for the teaching of cultural differences in communication strategies and an awareness of how such differences impact communication practices. Dora Tippens (1993) examines the problems of ethnocentrism, language barriers, and cultural differences in teaching intercultural communication and recommends strategies to modify existing assignments with intercultural elements. Han Yu (2011) explored the use of genre-based instruction to cultivate intercultural awareness and sensitivity in engineering students. To prepare students for intercultural technical communication tasks, Deborah Andrews (1996) suggested the integration of components such as contrastive rhetoric, translation, internationalization, and localization, which attracted increasing scholarly attention with the rapid development of transnational corporations and multinational teams since the 1990s.

Globalization, localization, and translation are three important areas of focus for technical communication (Agboka, 2013; Aykin, 2005; Ding & Li, 2018; Gnecchi et al., 2011; Gonzales & Turner, 2017; Han et al., 2016; Maylath, 1997; Spyridakis et al., 1997; Yunker, 2003). Highlighting the complex and contested nature of the concept, Jan Scholte (2000) defined globalization as “a transformation of social geography marked by the growth of supraterritorial spaces” which “unfolded with unprecedented speeds and to unprecedented extents since the 1960s” (p. 8). Emphasizing the need to go beyond connections between nation-states, Doreen Starke-Meyerring (2005) defined globalization as “the increasing interdependence and integration of social, cultural, political, and economic processes across local, national, regional, and global levels” (p. 470). To help technical communication students develop global literacies, she called for the need to pay
attention to digital networks, pluralized identities and blurred boundaries, interactions between diverse local and global discourses, and ideological contestation surrounding globalization.

Closely connected with the practice of intercultural technical communication, localization is defined as “the process of modifying products or services to accommodate differences in distinct markets” (Aykin, 2005, p. 5). Nuray Aykin’s (2005) edited collection contains studies dealing with strategies for and issues of localization of various products such as documents, graphics, websites, and user interfaces (Aykin & Milewski, 2005; Horton, 2005; Marcus, 2005; Mayhew & Bias, 2005). Regarding graphics, Charles Kostelnick (1995) distinguished the global perspective from the culture-focused perspective. While the former tries to “invent an objective, universal language and to define such language through perceptual principles and empirical research,” the latter asks designers to develop sensitivity to cultural contexts and beliefs to meet the needs of specific rhetorical situations (p. 184). In his popular book of localization for the software industry, Bert Esselink (2000) covered the issues of software engineering, software quality assurance, document translation, graphics localization, project evaluations, and project management. Aykin (2005) and Esselink (2000) focused on business needs in localization and examined how producers in source cultures can use localization to better serve the needs of consumers in target cultures. For them, producers or service providers initiate and take charge of the localization processes, and markets in the target cultures receive and consume localized products. Starting in the early 1990s, scholars also worked with local scholars and programs to build localized courses and programs in Chinese universities (Barnum et al., 2001; Ding, 2019; Rainey et al., 2008).

In terms of translation, numerous scholars argue for the need to incorporate translation, including technical translation, into the technical communication curriculum (Ding & Li, 2018; Maylath, 1997; Weiss, 1995). Timothy Weiss (1997), for instance, defined the role of professional communicators as that of “a translator who interprets contexts andformulates/reformulates communications” (p. 325). Brue Maylath and Emily Thrush (2000) identified several useful components related to translation, including cultural awareness, language awareness, and awareness of translation procedures. Multiple efforts have been made to give technical communication students opportunities to work with translation and localization students from European countries and to collaborate virtually with students from other cultures through bottom-up networked learning opportunities (Maylath, 1997; Starke-Meyerring & Wilson, 2008).

Beyond the three areas of globalization, localization, and translation, some efforts have been made to develop culturally appropriate empirical research methodologies in the study of intercultural technical communication. Barry Thatcher (2000) examined possible ways to balance differences with commonalities in designing more valid and ethical cross-cultural comparative studies. Advocating a methodology “situated within local cultures,” Beth Kolko and Carolyn Wei (2003) explored possible ways to “incorporate an understanding of how culture,
policy, and infrastructure affect patterns of Internet development” in the development of survey and interview tools in their study of information technology use patterns in technologically underdeveloped regions such as Uzbekistan (pp. 1-3). Huatong Sun (2012) proposed a sociocultural methodological framework of cultural usability to compare local uses of mobile messaging in the US and in China through questionnaire surveys, diary studies, qualitative interviews, and observations. Godwin Agboka (2013) explored the incorporation of social justice consideration and decolonial methodologies in studying cultural localization in disenfranchised cultural sites and discussed possible approaches in encouraging participatory localization. All these researchers stress the need to consider local cultural, political, and material contexts when designing empirical studies.

Scholars coming from non-western cultures have been examining intercultural technical communication practices from non-US-centric perspectives while introducing new insights about different source cultures (Fukuoka et al., 1998; Fukuoka & Spyridakis, 2000). Offering the Global South perspective, Sun (2012, 2020) explored the issues of culturally sensitive design of technologies and social media use across cultures, moving from designing usable and meaningful technology to designing usable, meaningful, and empowering social media technology. Huiling Ding (2013, 2014, 2020) investigated the transcultural risk communication about SARS and Zika by tracing both virtual and extra-institutional communication efforts made by experts, affected communities, and concerned citizens. The inclusion of intercultural studies focusing on cultures other than the US has added new perspectives and approaches to the field of intercultural technical communication.

While much progress has been made in the research on intercultural communication in the last few decades, we face new challenges today due to the rapid new developments in various areas, including artificial intelligence, data analytics, Industry 4.0, borderless digital labor platforms such as Amazon Mechanical Turk, increasing connectivity due to infrastructural improvement brought by 5G mobile technologies, the ongoing climate crisis, as well as the proliferation of chatbots, fake news, and social media tools. In addition, the continuous improvements in machine translation technologies make it easier for individuals to access and understand information written in other languages and to communicate with people speaking different languages.

Numerous contextual factors, including the ongoing pandemic of COVID-19, complicate the overarching picture of intercultural communication. These factors include the changing global geopolitical and technological landscapes, the shift from multilateralism and economic globalization to economic nationalism and protectionism (Frieden, 2019), the widening health and wealth disparity, and the ever-growing sociospatial inequities (Bhattacharya et al., 2017). How can technical communication scholars engage with these new technologies, developments, and challenges to shed light on possible approaches and strategies to improve intercultural communication efforts and to build new theories to guide
such practices? What methodological and theoretical challenges will technical communication scholars encounter when engaging with these new practices? How can we revise and update our curriculum and pedagogical practices to help prepare students to become more effective intercultural communicators? As we move into a post-COVID world with accelerating automation and protectionism, technical communication scholars are in a unique position to engage with these new challenges and to explore possible entry points to help shape important conversations that will determine how the intercultural communities interact with one another in a world facing challenges on all fronts.

References


