Culture, Cyberspace, and the New Challenges for Technical Communicators

Kirk St. Amant

Historically, cross-cultural communication was considered an interesting but isolated interaction reserved for individuals who traveled abroad for business or pleasure. As new communication technologies (e.g., film, the telephone, and television) emerged, a growing number of individuals found they could access materials—if not actual persons—from other cultures. The costs and the unidirectional nature of these media, however, still imposed significant restrictions on cross-cultural interactions. It was not until the global diffusion of online media that a significant number of individuals could interact on a truly international level. Within this context, Web sites allowed organizations to market their products instantly and cheaply to a range of overseas consumers. Similarly, media such as e-mail and online chat rooms allowed individuals to exchange information, ideas, and materials quickly and directly with international counterparts. At the same time, growing interest in free markets and trade agreements provided incentives for using such media to interact on an international level. Thus, the age of online communication also became the era of truly global discourse.

For individuals working in different communication-based fields, this access to global markets has important implications. Perhaps the most significant of these is the perception of audience. Traditionally, when one designed communication products (e.g., instructions), the author or developer thought of audience in terms of local, regional, or perhaps even national terms. Today, however, communication products—particularly those designed for online delivery—are
often part of a global process designed to share information and capture market share at an international level. As a result, online communication practices almost inherently involve processes such as translation and localization. And as international online access continues to grow, the notion of communicating with audiences from other cultures will only increase in importance.

ACCESS AND USE IN GLOBAL CONTEXTS

According to Internet World Stats, just over one and a half billion persons have online access (“World Internet Users,” 2008). While that number represents less than a sixth of the world’s population, what is surprising is how quickly such access has grown in the last decade. China, for example, went from just over 22 million individuals with online access in 2000 to over 250 million individuals with access today (“Asia Internet Usage,” 2008). India also saw online access skyrocket from 5 million persons with online access in 2000 to 60 million with online access today (“Asia Internet Usage,” 2008). Internet use in Africa has also grown markedly—by some 400%—since 2000 with the largest numbers of users in South Africa, Egypt, Morocco, and Kenya (Burns, 2006). Rapid growth is also taking place in much shorter timeframes. For example, the number of Brazilians with online access grew by over 5 million between September 2007 and September 2008 alone, and the number of individuals with online access in France, Germany, and Spain increased by 4 million, 3 million, and 2 million—respectively—in that same period (Burns, 2007a, 2009).

This increase in international online access introduces cultural factors that affect how individuals use online media. In certain instances, linguistic preferences have allowed relative newcomers to beat out better-known companies in certain markets. It was language, for example, that allowed the relatively new Chinese search engine Baidu to beat out the more established Google in order to capture 60% of the search market in China (Grehan, 2008). Other, nonlinguistic factors also have important implications for the use of online media to share information globally. Recent research notes that individuals in Latin America tend to do more online searching than do individuals in the U.S. (Burns, 2007b). The same research also indicates that Internet users in Latin America, on average, spend more time online than do other Internet users around the globe (Burns, 2007b). Additionally, online marketing research indicates that cultures may look for different features—and thus expect different kinds of information—when shopping for the same product online (Chen, 2008).

Within this global online context, appearances can be deceiving. To begin with, raw population statistics might not be an accurate indicator of Internet use. Brazilians, for example, represent the largest online cultural group in Latin America. Interestingly, Chile, which has a much lower rate of online access (one-third of that of Brazil), has over four times the Internet penetration of Brazil (Burns, 2007b). Thus, Chile could actually be a better market for certain
online goods and services than Brazil with its larger online population. Similarly, linguistic data can lead to faulty assumptions related to online communication preferences. As a recent study by Yahoo Telemundo and Simmons Research notes, while many U.S.-based Hispanics prefer Spanish-language television stations as a source of information, these same individuals also tend to do their online searching in English (Nelson, 2007). In fact, many of the subjects in the study reported seeking information from Spanish-language television programming while simultaneously searching the Web in English (Nelson, 2007). Thus, effective international communication via online media requires one to go beyond initial ideas related to population sizes, language, and cultural identity.

Further complicating these situations are the definitions—and related assumptions—that the members of a culture associate with the term online access. Most Internet users in industrialized nations, particularly in the United States, use laptop or desktop computers to access the Internet. In many emerging economies, however, the power grids and the telecommunications infrastructure needed to use such hardware are problematic. The majority of the Internet users in these areas thus rely on cell, or mobile, phones to access online media via wireless networks. As a result, regions such as Eastern Europe have almost twice the wireless Internet demand than the United States does (Burns, 2007c). Internet access via hand-held devices, however, brings with it different expectations and limitations related to screen size, text size, and so forth. Thus, what constitutes accessible and usable online information can vary markedly depending on the size of the interfaces used in certain regions.

These factors of language, cultural usage patterns, and media preferences indicate that no single strategy can be used for widespread international communication via online media. At the same time, growing global markets for technical goods mean organizations must understand this new online context in order to succeed in today’s highly competitive and increasingly international marketplace (St.Amant, 2006). For these reasons, more research needs to be done in the area of culture, communication, and cyberspace. Such an understanding is of particular importance to individuals working in communication-based fields, for they are perhaps the most affected by these developments. This collection of essays examines how these factors of culture and media are affecting one particular field: technical communication.

**CHALLENGES FOR TECHNICAL COMMUNICATORS**

For technical communicators, the convergence of online media and globalization creates new and important challenges. One major challenge involves creating online materials that can be used by different cultural audiences. A common practice is for organizations to use localization to adapt the content, design, and architecture of online materials for culturally diverse audiences (Yunker, 2002). However, in an era of increasing interchange among culturally
different groups, what does being “culturally diverse” mean on the Internet? In an era of increased transnationalism, what do people of polycultural heritage expect in the way of culturally sensitive and shared Internet communication? Some users may require localized content, while others might prefer to use a preexisting set of global literacies for Web interaction. Within this context, technical communicators need to reconsider translation and localization strategies while also keeping current on international market trends that drive such practices.

A second challenge technical communicators face is determining how cultural and linguistic factors affect international online interactions. Certain authors, for example, note that online media can affect the nature of cross-cultural discourse (Barnett & Sung, 2005; Hermeking, 2005). Moreover, other authors have noted that traditional approaches to studying culture and communication sometimes do not seem well suited to examining cross-cultural online exchanges (Ess & Sudweeks, 2005). As a result, today’s technical communicators must determine how the structures of online media (e.g., e-mail, chat rooms, bulletin boards, Web pages) affect international discourse. For example, do successful online interactions across cultures involve or require more than just the use of a common language? Similarly, in which respects does the technological infrastructure of online media shape the cultures that interact within these media?

Recent developments also have major implications for education and training practices in technical communication. In sum, educators must determine whether teaching and training in technical communication needs to be modified to address the increasingly international nature of online interactions. If so, what steps should individual teachers/trainers or overall educational and training organizations take to address this topic effectively? Educators also need to address the increasingly international nature of online education and examine how online classes might become mechanisms for exploring international online discourse. These and other issues need to be examined if technical communicators wish to operate effectively within the continually expanding context of international cyberspace.

Addressing these matters is no easy task. It is, however, important that technical communicators begin to examine these issues now, should they wish to succeed in the international online context of 21st-century markets. The essays in this collection are an initial step toward unlocking the complexities that technical communicators need to examine to better understand cross-cultural communication in cyberspace.

OVERVIEW OF THIS COLLECTION

This edited collection examines how cultural factors influence cyberspace interactions and how online media shape cross-cultural discourse. The contributors to this collection use a range of methods—including case studies,
empirical research, and usability studies—to address different parts of this area of inquiry. In so doing, these contributors explore a range of topics (e.g., international outsourcing, open-source software, writing practices, legalities of communication) related to using online media effectively with international audiences. The contributors also provide insights into how cultural factors affect a range of professional technical communication practices such as usability testing, Web site localization, online architecture development, and content management. This range of approaches and topics helps readers better understand the complexities associated with international online communication.

The editors of this collection have organized its 10 chapters into three thematic sections. Each section focuses on a particular area in which cultural factors seem to collide with aspects of online media. Through this three-part structure, the text examines themes related to more general technical communication practices as well as reviews more specific cultural and topical aspects involving online media.

**Section I: Theoretical Approaches to Technical Communication in Cyberspace**

The book’s first major section examines different approaches readers can use to conceptualize and contextualize cross-cultural communication in cyberspace. The four chapters in this section present perspectives and insights on the complexities of international online exchanges. These chapters also provide readers with a relatively broad foundation from which they can further explore how aspects of culture and online media affect one another.

In chapter 1, R. Peter Hunsinger argues that technical communicators should be careful not to rely too heavily on *culture* to guide Web localization practices. Hunsinger’s reason for this caution is that traditional definitions of culture are often unstable and even unreliable in online environments. For these reasons, Hunsinger suggests that technical communicators might find it more effective to localize online materials based on a broader set of cultural and noncultural contexts (e.g., legal, economic, and technological) that influence an online audience’s behavior. In examining these factors, Hunsinger presents ways in which technical communicators can apply an understanding of these contexts to localize online content more easily.

In chapter 2, Clinton R. Lanier builds upon these ideas of localization by examining how audiences from other cultures can actually help with the process of localizing online content. Lanier first provides an overview of the difficulties related to delivering online content to a global audience. He also notes that because such an audience comprises a variety of cultural-rhetorical demands, online content must be closely localized to ensure that information is disseminated accurately and efficiently. As Lanier explains, such close attention to individual cultural-rhetorical preferences has not previously been possible, due to the vast amount of resources required. Lanier then examines how
user-customizable online technology can address this situation by providing technical communicators with tools for creating effective products for international audiences.

The localization approaches put forth by Hunsinger and Lanier reveal how important a deeper understanding of culture is to designing online materials for users from other cultures. In chapter 3, Matthew McCool shifts the discussion to show how an understanding of cultural-rhetorical factors is essential when designing overall information systems. McCool explains how optimizing international information systems depends on a number of rhetorical aspects used to engage a target audience. While time and translation are necessary features for international information systems, McCool notes that they are comparatively superficial features. As he explains, for optimization to occur, system developers need to know much more about their target audience—they need an intercultural theory of mind. To examine this idea, McCool’s chapter addresses three key factors:

- A computational theory of mind
- Emergent cultural properties
- Information systems optimization via metal computations and cultural properties

In this analysis, McCool reveals the various levels at which one can use an understanding of cultures to develop effective global information systems.

In chapter 4, Martine Courant Rife explores the complex legal situation created by international access to cyberspace. Rife argues that rhetoric has new relevance for virtual environments because of its ability to assist strategic thinking. Rife uses Kenneth Burke’s identification and division to discuss the ways in which basic awareness of international intellectual property (IP) law is crucial to the success of technical communication in an age of global online media. The idea is that laws often shape the communication practices that cultures employ when interacting online. To examine this idea, Rife uses examples of international IP law’s influence on technical communication. She then explores the ways in which increased knowledge of these issues will benefit technical communicators by allowing them to add value to their organizations via strategic thinking.

Section II: Online Interactions Between Cultures

The book’s second section moves the overall examination from general practices to more specific cases showing how cultural factors can affect online interactions. The three chapters in this section offer theoretical, heuristic, and case study analyses of how members of particular cultures use online media to interact with others. Such a focus lets readers compare and contrast the ways factors of culture and media can affect communication behaviors and preferences within specific cultures. This focus also serves as a foundation from
which readers can undertake future research involving online media’s effects on cross-cultural exchanges.

This section begins with Daniel D. Ding’s analysis of how different cultural groups identify, or name, online information. In particular, Ding, in chapter 5, uses the Confucian concept of naming to explore the ways in which Chinese as compared with U.S. Web designers organize online content. To do this, Ding compares the organization of Web sites designed by counterpart Chinese and U.S. government agencies. Through this comparison, Ding reveals how different cultural traditions can influence the presentation and organization of online information.

In chapter 6, Carol M. Barnum further explores these ideas by examining rhetorical differences in communication styles between Eastern and Western Web writers. Barnum applies the work of Edward T. Hall and Geert Hofstede to review examples of international business correspondence exchanged via online media. Barnum uses these communiqués to show how aspects of culture and media can contribute to misunderstanding. She also offers suggestions for ways in which analyses such as those presented in her chapter can be useful to teachers and trainers in technical communication.

In chapter 7, “Meeting Each Other Online,” a team of international authors reviews a corpus of international online exchanges to explore how the process of collaboration is affected by factors of culture and media. As the authors explain, international online interactions raise issues of language, culture, and the negotiation of common understandings about collaborative tasks. Within this context, one of the first events to take place among members of virtual teams is self-introduction—a process that is important in terms of first impressions. To explore such situations from an international online perspective, the authors analyze a small corpus of online Chinese-U.S. student letters of self-introduction. Through this approach, the authors identify features that index cultural habits and expectations that are important for understanding professional writing practices in international online settings.

Section III: Cross-Cultural Collaborations and Learning Environments

The third and final section moves the focus from that of specific cultures to that of a specific topic—collaborative approaches related to education. The three chapters in this section provide examples of the ways in which technologies are adapted for culturally diverse groups. These chapters also explore how such groups use online technologies to collaborate on learning-intensive projects. This topical focus provides readers with important insights not only for technical communication educators and trainers, but for any individual responsible for developing instructional material for online delivery (i.e., technical communicators in general). The ideas presented in this section also have important
perspectives to offer individuals who hire, manage, or train graduates of technical communication programs.

Chapter 8, the first chapter in this section, provides an analysis of how existing instructional and communication technologies can bridge geographic, digital, and cultural divides and facilitate collaboration on an international scale. Through this analysis, the authors—Audrey Bennett, Ron Eglash, and Mukkai Krishnamoorthy—highlight existing Web-based technologies related to distance learning. They also explore the limitations of such technologies for collaboration between first- and third-world participants. In order to do this, the authors use three disciplinary perspectives—those of visual communication, anthropology, and computer science. By combining these perspectives, the authors offer technical communicators an interdisciplinary understanding of important intercultural and technical issues involved in online learning.

In chapter 9, Judith B. Strother reviews the ways in which cultural implications must be considered during all phases of developing Web-based training programs. Such considerations, Strother explains, must address curriculum planning, interface designing, and course delivery involving online and on-site options. To examine these factors, Strother uses a case study of a Web-based English for specific purposes course. Through this case study, Strother reveals the complex cultural aspects that can influence the design and the international delivery of online training.

Chapter 10, by Sipai Klein and Sharon Trujillo Lalla, discusses the ways in which the concept of digital ecologies can help individuals learn more about intercultural interactions in learning management systems. Klein and Lalla begin by asking if technologies such as learning management systems meet the needs of globally diverse workplaces and classrooms. To answer this question, they use intercultural variables from Edward T. Hall, Geert Hofstede, and Charles Hampden-Turner and Fons Trompenaars to analyze online learning management systems. Klein and Lalla then use this approach to identify the affordances and the disadvantages of learning management used in intercultural online interactions. Their observations provide valuable insights that technical communicators and technical trainers can use when designing online training for different cultures.

PERSPECTIVES FOR FUTURE ACTION

The area of international online communication is vast and complex. The chapters in this collection represent a small but an important initial step toward understanding the factors contributing to this complexity. For this reason, readers should consider the ideas presented in these chapters as a foundation from which future research can be launched, new educational approaches can be tried, and new professional practices can be developed and tested. Thus, this collection can be viewed as the start of a broader discussion on how the field of technical communication should operate within the international online context.
of this new century. It is the hope of the editors that readers will view themselves as participants in this process, will further explore the ideas covered in this text, and will carry the overall conversation on to new levels, topics, and cultures.

REFERENCES


