

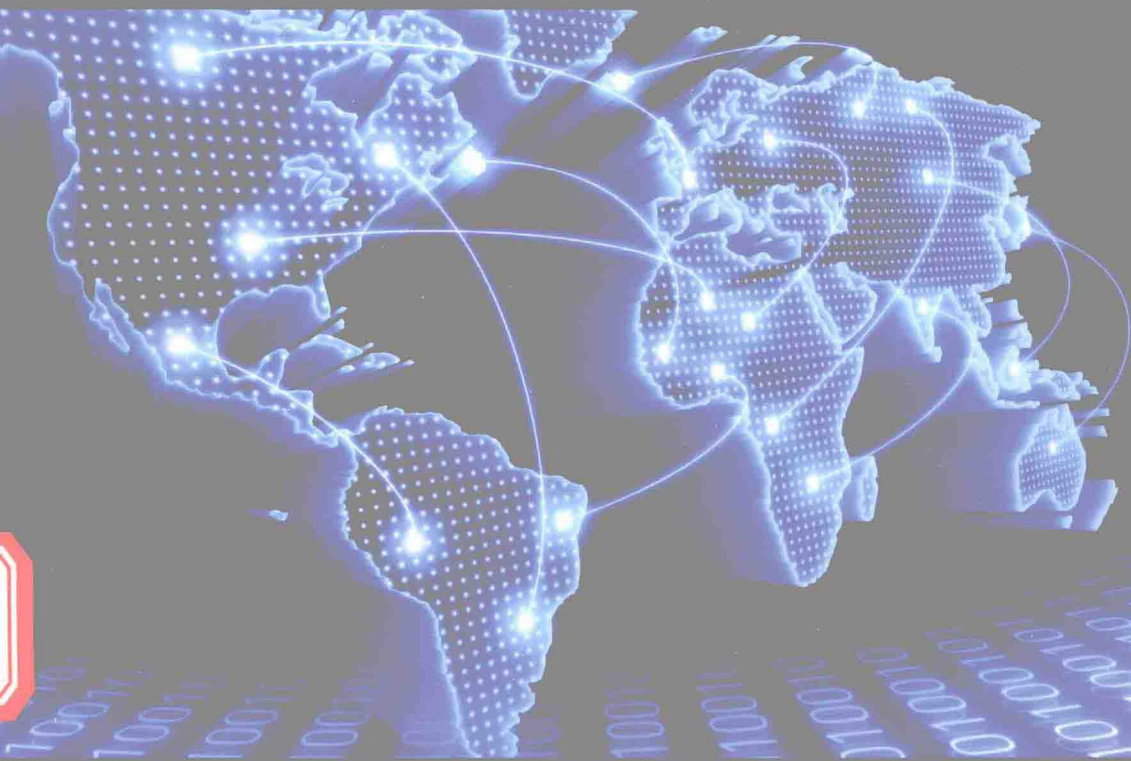
IEEE PCS Professional Engineering Communication Series

Traci Nathans-Kelly, Series Editor

Teaching and Training for Global Engineering

Perspectives on Culture and
Professional Communication Practices

Edited by Kirk St.Amant and Madelyn Flammia




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Edited by

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To my mother, Joan Pelletier St.Amant, for instilling in me the value of education and the desire to teach, and to my daughters, Lily Catherine St.Amant and Isabelle Marie St.Amant, for being the inspiration for all I do.

– Kirk St.Amant

To my husband, Fred Klingenhagen, for his unfailing love and support, and to my father-in-law, Declan Klingenhagen, for his contribution to the engineering profession.

–Madelyn Flammia

A Note from the Series Editor

The *Professional Engineering Communication* series grows by one more with this collection that was edited by Kirk St.Amant and Madelyn Flammia, titled *Teaching and Training for Global Engineering*. As part of this series, brought to you by the IEEE Professional Communication Society (PCS) and with Wiley-IEEE Press, we aim to bring to you a wealth of information, hard-earned knowledge, wise observations, and thoughtful perspectives about approaching engineering and technical communication teaching and training for global work.

Experienced practitioners will tell you that communication is the cornerstone to solid, technical, and successful international or global work. And, in order to get communication to function properly, it must be as planned for and thought about as the technical bits. This amazing collection of experts will bring perspectives and expertise that will enlighten your communication efforts at every level, at every part of the workflow.

Over the years, I have had the happy opportunity to use information from each and every one of the authors in this collection as I teach at universities and train professional engineers and technicians. In the past decade or so, I have also had the joy of meeting most of these authors face-to-face and learn from them in their talks and workshops. This book is a powerhouse of the best and brightest in technical and engineering communication perspectives today.

Take these viewpoints and nuggets of knowledge and transform them into something that will work for your specific situation. Use their expertise to your own advantage... as a place to begin to thoughtfully morph what you do into something even stronger than it already is.

This set of authors enriches greatly our series, which has a mandate to explore areas of communication practices and application as applied to the engineering, technical, and scientific professions. Including the realms of business, governmental agencies, academia, and other areas, this series has and will continue to develop perspectives about the state of communication issues and potential solutions when at all possible.

While theory has its place (in this book and this series), we always look to be a source where recommendations for action and activity can be found. All of the books in the fast-growing PEC series keep a steady eye on the applicable while acknowledging the contributions that analysis, research, and theory can provide to these efforts. There is a strong commitment from the Professional Communication Society of IEEE and Wiley to design a set of information and resources that can be carried directly into engineering firms, technology organizations, and academia alike.

For the series, we work with this philosophy: at the core of engineering, science, and technical work are problem solving and discovery. These tasks require, at all levels, talented and agile communication practices. We need to effectively gather, vet, analyze, synthesize, control, and design communication pieces in order for any meaningful work to get done. This book, with such a strong chorus of expert voices, contributes deeply to that vision for the series.

Traci Nathans-Kelly, Ph.D.
Series Editor

Foreword

One Person's Perspective on Culture and Communication Practices

Why Are You Reading This Book?

You're reading this book, very likely, because you are an academic or a trainer, a student, or a practitioner who understands the importance of the global reach and interconnectedness of business. It's a cliché of sorts to say that the world is a global village. However, it would be hard to imagine a job today or in the foreseeable future in which our ability to communicate well with coworkers, managers, and our customers all over the world is not critical to our success and to the success of the companies for whom we work.

Why Is It Important to Consider Culture?

Experience is the best teacher. My experience in being exposed to and confused by the complexities of communication across cultures taught me that I needed to get educated so that I could become a better interpreter of the communication contexts in which I found myself. In sharing some of my stories, I hope to demonstrate the importance of considering, and learning about, cultures different from our own.

My first story comes from my early days as a professor of business and technical writing at an engineering-focused college. Seeking the opportunity to gain real-world experience with engineers, I accepted a short-term consulting job to work with Japanese engineers at a manufacturing facility in Georgia. These engineers were in training for management positions in Japan, and the first step in their training was to serve on a 2-year assignment in the United States. The plant manager was from the United States, as were most of the workers at the plant.

The focus of the work was to help the Japanese engineers converse more comfortably and fluently with their coworkers and managers from the United States on both technical/engineering topics as well as any other topics that might be useful. The opportunity to work with Japanese engineers was exciting; the location of the plant, however, was challenging in that it required a two-hour drive each way. Nonetheless, I enjoyed getting to know the Japanese engineers and seeing them progress rapidly in their English

proficiency. However, when the plant manager asked me whether I would be interested in extending my contract for a longer period of time, I declined because I had underestimated the time commitment and the need to focus on my responsibilities as a new professor.

At the celebratory dinner held at a local Japanese restaurant at the completion of this phase of their training, I told the Japanese engineers that I would not be continuing because of the long commute and my busy schedule. The next day I got a call from the US plant manager, sharing with me the deep disgrace the Japanese engineers felt and their desire to know what they might have done to offend me.

I was flabbergasted. I thought I had been very gentle in explaining the reason I was not renewing my arrangement with the client, and I thought I had been very encouraging about how well they were doing with their conversational English at this point. Clearly, I had missed some important sub-text, some aspect of communication that was hidden below the surface but nonetheless noted by the Japanese engineers. They had lost face with me, as well as the plant manager who had hired me, and I had been the cause of it.

Fast forward a decade to my next major exposure to a culture that was “foreign” to me, this time in China. Here are a few typical examples of puzzling exchanges I encountered, from among many that I could name.

Context: Waiting in an airport in Western China for the late arrival of the one flight to Beijing for that day. Clear blue sky above. No plane in sight.

Me: To the ticket agent: “Why is the plane delayed?”

Ticket agent to me: Looking up at the sky... pause... then responding to me: “Maybe bad weather?”

Context: On a tour bus in rural China.

Me: To the tour guide: “What kind of vegetables are those in the field?”

Tour guide to me: Looking out at the field and then back at me... pause... “Chinese vegetables.”

In each of these exchanges, I knew something was happening that prompted these kinds of responses. I just didn’t know what to call it or how to avoid such awkward situations in the future.

Later, after taking some seminars in Asian culture, I came to understand that it was, once again, face. When asked a question, the Chinese person with whom I was speaking wanted to answer with *something* rather than nothing. Not answering would disappoint the person who asked the question and embarrass the person who cannot answer, resulting in a loss of face on both sides of the communication.

Through experiences such as these, I began to appreciate how the many and nuanced aspects of cultural communication expectations can affect most—if not all—of the exchanges that take place between individuals.

How Can Teaching Provide Learning Opportunities?

I found myself in China as a result of being selected by my university as the first professor in a teaching exchange with a Beijing-based Chinese engineering university of similar size and scope. In preparation for my semester-long stay in China, I studied Mandarin for six months, the result being that I was minimally conversant in Pinyin, the language system of modern China, which translates Chinese characters into Latin script. However, I could not read Chinese characters.

Although I had begun my cultural education by reading several travel guides and Chinese histories, for an understanding of the deeper, more complex meaning of communication exchanges, I was often in the dark. As it turned out, I was as much a student of culture as a teacher of English. Here are two stories from my teaching encounters that provided excellent learning opportunities for me and can be used as examples of the need to learn about other cultures as much as possible *before* immersion in them.

The first story occurred at the beginning of the semester, and it involved middle school English teachers who had been handpicked from all over China to attend a specialized year-long course in English. Selection for this class was considered to be prestigious because it was taught by a Western, English-speaking teacher (i.e., me for the first semester and a colleague from my university for the second semester).

I started the first class meeting by describing the classroom style generally associated with Western teaching and learning, and I suggested that, to help conceptualize this idea, we (the students and I) should try to interact in the Western style I had just described. So, for instance, I instructed the students to remain seated when they addressed me (rather than stand when speaking, which was the expected practice of students in the Chinese school system). I noted, as well, that they should not all speak at once when I asked a question (another cultural norm in the Chinese classroom). Rather, I explained, I would use the Western teaching style/approach of calling on each student, one at a time, and I expected them to respond individually.

All went well until I called on someone who did not know the answer to the question I asked. When that student rose to respond, there was a brief moment of silence and then everyone in the room chimed in to answer the question for her. After I repeatedly witnessed this group response to a question posed to an individual, I came to understand that the students' support of a single member was motivated by the desire to save the face of the individual and maintain harmony in the group. Their cultural mores were too deeply engrained to change at a mere suggestion from me.

The second story occurred at the end of the semester, at the point at which I had graded the students' final exams and it became clear that one student would not pass the course. After I distributed the results of the final exam to the students, I was approached by several of her classmates, the best students in the class, who pleaded her case in asking that the failing student be given a passing grade. It was at that point I learned that, in Chinese culture, everyone has face. If one member of a group loses face, all members of the group to which that person belongs also lose face. Because the students who came to me had status (face) from their high grades in the course, they took

on the responsibility to intervene on behalf of their fellow student who did not have enough face/status to make such a request. As I was engrained in my own culture's focus on individual achievement earned through individual effort, I did not allow myself to be persuaded to change the student's grade so that she could pass the course. The result was a loss of face for all involved—the students *and* the teacher. I often wonder whether I made the wrong decision. In hindsight, I feel that I did. And, not surprisingly, the failing student returned with her classmates in the second semester of the program.

Another story comes from teaching the Chinese graduate students, who were taking a different English class of mine in preparation for the national exam they would have to pass at the end of the year. For this course, the school's administrators provided me with a prescribed textbook, and I was expected to use it systematically.

One day, I decided to diverge from the dry set of exercises at the end of the chapter and instead offered the students an assignment that would give them an opportunity to use some creativity to write an essay to demonstrate mastery of the grammar and vocabulary topics covered in the chapter. At the start of class, I asked the students to volunteer to read their essays to their peers. No one volunteered. So I followed the common US teaching practice of calling on someone to perform the requested task. The student I selected sheepishly informed me that he had not prepared the essay. I was shocked, as these were excellent, hardworking graduate students. I called on another student. Same response: she had not prepared the essay.

When I came to the realization that no one had prepared the essay, I was baffled. Later, I learned from one of the students who came to me privately that the reason he and his classmates had not prepared the essay was that they felt compelled to do the exercises at the back of the chapter *first*, as these were “required,” and that left no time for the *extra* assignment I had given them.

My assignment for the students caused a loss of face all around. I was the teacher, and they wanted to comply with my instructions; but they also had to pass the national exam at the end of the year, which would be based on mastery of the exercises in the textbook. My failure to fully understand what the students' goal was had put me in the awkward position of adding to their already heavy burden of homework. Worse, it put them in the awkward position of appearing to be unprepared for class. As a result, we all lost face.

I never gave another “extra” assignment.

On the surface, these examples appear to be relatively harmless. But they suggest communication complexities that must be studied and learned. With this knowledge, we can effectively move from the simple effort of conversation to the complex negotiation of a business transaction.

How Can We Communicate Well in Global Teams and with Global Customers?

It is a fact of modern business that increasing numbers of us are working in globally distributed teams. With technology to support regular communication with teammates

around the world, we can inadvertently find ourselves stepping blindly into problems of miscommunication through our voice in mobile or conference calls, our body language in video conferences, and our written communication in text messages, instant messaging, chat rooms, and emails.

Moreover, superficial treatments of cross-cultural communication—often presented as a checklist of do's and do not's—cannot begin to scratch the surface of the need to understand deeply how culture shapes and affects experience.

In sum, not only do we need to learn how to be effective communicators in global teams, but we also need to learn how to design effective products for global markets, write support or instructional documentation that can be easily and effectively translated and localized, and create websites for international and culturally specific users. These are just a few of the ways in which technical and professional communicators will be called on to create products that not only do not offend but, more importantly, increase customer satisfaction and thus contribute to the global market share of employers.

How Can We Learn About the Effect of Culture on User Experience?

There are many ways to learn how culture affects experience, as the authors of these chapters present. Not to be overlooked, however, is the value of usability testing. When products have global users, usability testing can support the learning curve by helping expose some of the cultural differences that need to be addressed when products have a global market. Here's a story that shows the usefulness of testing in global contexts.

In an international study conducted remotely to users around the world, I had the experience of seeing cultural differences revealed in the way in which the participants presented themselves during the test sessions. They had been recruited for an hour-long session in which they were to set up an application and do some typical tasks with it.

Early in our first day of testing, my team and I were surprised to hear the manager (a test participant located in Singapore) talking to other people in the room with him. It soon became clear that these other people were assisting the manager in responding to the tasks we asked him to do. The observers from the international company, headquartered in the United States and the United Kingdom, were taken aback by this group participation, as they were interested only in the manager's experience, not in the support the manager might receive from others who might be assigned to carry out some of the tasks. The client's goal in this instance was to learn whether the managers could use the application in question without outside assistance. By assisting the manager with this task, the other participants were, in effect, nullifying the objective of the overall research project.

At this point in my cultural education, I was "schooled" in the cultural norms of collectivist cultures, of which this was one. As a result, I was not surprised at the manager's face-saving approach of using a "backup" to assist him in learning how to use the

application. The client, however, was unhappy with this turn of events and wanted to intervene in order to ask the manager to work alone on completing the task—an option I did not allow. My goal was to help the client understand their users' experience, and this was clearly one of their users.

Later that same day, the clients and I observed the same approach taken by a manager and his support staff from Lisbon, Portugal. The third time it happened was with a US who was working for a US company, but who was originally from a different culture.

With these experiences, we began to see a pattern and to appreciate that the application had to address the needs of managers and their senior staff in collectivist cultures where relationships and cooperation are highly valued and highly supportive of positive face. In a later usability study with the same application, the same co-learning, face-saving approach was used, this time in the collectivist culture of Mexico. Thus, through this usability research, it became clear that the culture in which something is used affects how members of that culture will interact with or use it.

Usability testing can help organizations understand how cultural factors affect product adoption, which will help these products meet with success in other cultures.

How Do We Know What We Don't Know?

From my experiences, I have learned that we need to learn as much as we can about other cultures and expose ourselves as much as possible to other cultures if we truly want to communicate effectively with counterparts and clients in the modern context of globalization. To achieve this objective, we must begin by realizing we should always have our cultural antenna up when we are in unfamiliar cultural situations. Education, be it self-generated or within the structure of a course or program, is central to learning and teaching about culture.

An important resource toward that end can be found in this edited collection. The chapters in this book can be used to broaden how we teach our students and train our clients, as well as how we prepare ourselves for effective cross-cultural communication. We can adopt or adapt the ideas and the exercises presented in this text in ways that can best suit our own individual purposes and contexts of use. We can also learn from the cultural communication strategies presented by the authors of this collection, and we can apply such ideas to a variety of cultural settings. The entries in this collection provide a map of sorts that readers can use to navigate on their journey to learn more about cultural factors that can influence professional communication practices around the globe.

One of my favorite expressions is from the Chinese philosopher Lao Tzu: A journey of a thousand miles begins with a single step. I find that I am on a journey that began a long time ago and hasn't ended yet. Curiosity and a thirst for knowledge and understanding keep me hungry to learn more, always more. I learned a great deal from the chapters in this book. I can put some of these strategies and exercises from this text to good use in my Global Strategies course in our M.S. degree in information design and

communication. I can also use the ideas from this collection as I continue to work with and to learn from my clients, especially their users, in usability testing sessions.

I certainly do not have the key that unlocks cultural communication mysteries, but I can see through the keyhole because of a lifetime of learning. I'm sure you feel the same, or you would not be reading this excellent book.

Carol M. Barnum
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Introduction

Rethinking the Context of Professional Communication Education for the Global Age

The Global Context of the Modern Workplace

Today's workplace is one where employees often operate in overlapping local and global contexts. In some cases, this overlap happens when individuals located in different nations collaborate on a common project. In other cases, this overlap occurs when local companies create products for or offer services to international markets. Moreover, advances in communication and collaboration technologies mean such local-global overlap can occur almost seamlessly—to the point at which individuals might not realize when they are working in local versus international contexts.

Success in this new workplace is often a matter of communication. Only through the effective exchange of information can the members of a team—be it locally based or globally distributed—move successfully toward a common objective. Only by gathering essential information on local and global audiences can organizations develop effective products and services for such audiences. The blurring between local and global, however, means it is increasingly difficult to determine when one is interacting in a local or an international context. In fact, given the interconnected nature of the modern economy, it is perhaps a moot point to think in terms of such distinctions.

To interact effectively in such environments, today's employees need to understand a range of linguistic, cultural, and technological factors that can affect professional interactions in different contexts. Doing so is no easy task. Yet, as the world becomes more interconnected, employees will increasingly need to hone their intercultural communication skills to meet the communication expectations of the blended local-global workplace.

The Educational Challenges Created by This Context

These new workplace expectations create an interesting situation for educators in professional communication. For many of these individuals, the area of intercultural communication is a new one that will require additional training to understand essential concepts and to teach related ideas. For others, the topic might not be new or unknown,