15 Designing Multimodal Technical Instructions for Cross-Cultural Resonance Using a Culturally Inclusive Approach

Audrey G. Bennett

"The Increasingly Diverse United States of America" (https://tinyurl.com/5n7rk443) maps the evolving racial and ethnic diversity of regions nationwide (Keating and Karklis).[1] It provides compelling visual evidence that the nation is diversifying rapidly and will likely continue to do so moving forward.[2] What does this mean today for designers of technical instructions? It means that your readers are more diverse in cultural backgrounds and experiences than a decade ago and will likely continue to diversify moving forward. As access to digital media and shipped products continue to increase around the world, readers of technical instructions are becoming more global as well.

Now, we are amid an age of heightened awareness and cognizance of cross-cultural presence (e.g., consider the recent emergence of the Black Lives Matter movement) and the related rising advocacy and clarion calls for diversity, equity, access, inclusion, and justice. Within the current age of decolonization (i.e., the dismantling of a culture's domination over others), readers, the people served through our technical instructions, are culturally diverse human beings who need and want information that speaks their culture-based languages or can be accessed in a tech-mediated way that translates information into their respective languages. An example of

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how this cultural phenomenon is manifesting can be found in the pidgin translation of BBC's news captured as a screenshot in Figure 15.1. As a result of these cross-cultural influences on the reading of information today, technical instructions must enable cross-cultural resonance, that is, an ability to communicate effectively with people of many different cultures.

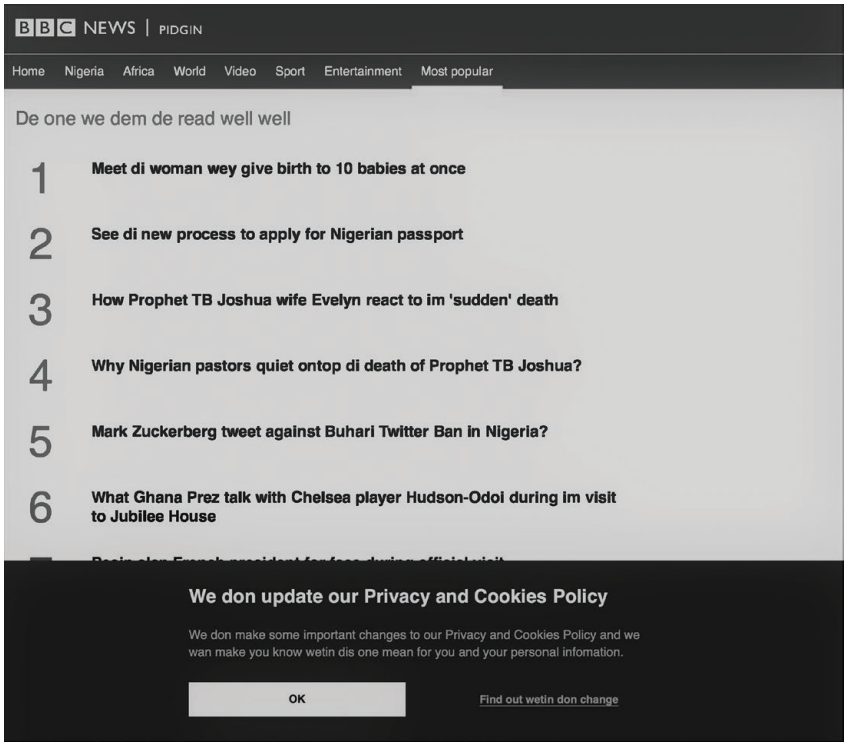


Figure 15.1 Pidgin Translation of BBC News' Most Popular Articles and its Privacy and Cookies Policy Update on Wednesday, June 9, 2021. Image Courtesy Audrey G. Bennett

When Cultural Dissonance Deters Access to Meaning

Culture, in this chapter, refers to an interaction between ethnic, racial, cognitive, gender, generational, behavioral, linguistic, political, geographic, and other identities based on heritage, choice, and environmental factors. While multimodality, that is, the integration of visual and verbal language in a sign or communicative expression (Kress) arguably has reigned as the approach to communicating to readers with

multisensory and intersensory literacies or ways of knowing, it falls short in responding to cultural influences that inform a reader's sensory literacies. Clear communication occurs when there is cultural resonance between the technical information and the targeted readers. However, a variety of cultural differences among targeted readers can create dissonance in the communication of technical instructions that ultimately will deter access to or transmittance of meaning.

As readers become more global—geographically and culturally—language, aesthetic, sensory, technical, geographic, generational, socioeconomic, gender, ethnic, and other individualized social norms are some of the barriers that can emerge in the communication process and compromise the ability of the technical writer to convey information clearly. The consequences of the interference caused by cultural dissonance vary depending on the intended impact of the technical instructions. High-stakes impact may save lives; bring about life-changing cognitive, behavioral, and environmental changes; and yield equity, access, and justice. Whereas low-stakes impact may enable ease of use or functionality or understanding of how to complete a task. Whatever the intended impact, technical writers have relied heavily on multimodality to address the multisensory capabilities of readers in the communication process though with little to no consideration of cultural dissonance and the need for cultural resonance.

Designing Multimodal Technical Instructions that Resonate Across Cultures

"An Introduction to and Strategies for Multimodal Composing" (https://writingspaces.org/node/1712) explains multimodality as five ways of communicating—linguistically, visually, spatially, gesturally, and aurally—in digital and non-digital spaces that corresponds to the senses (Gagich 67). Using the term "text" to mean any communication form, from print to digital texts (e.g., movie, website, etc.), Gagich notes that these are texts that exceed the "alphabetical" and illustrates (using images) how each mode functions. For instance, one of the five images shows former First Lady of the United States Michelle Obama speaking at a secondary school in London. In the photograph, Mrs. Obama clasps her hands together, her left hand over the backside of her right hand, against her heart as she smiles at the audience. The photograph aims to clarify what the gestural mode of communication can look like. By illustrating each mode, Gagich begins to explain the rationale behind the strategic decisions that determine which form is needed when composing technical instructions. For

example, Gagich specifically notes that it can aid comprehension with readers who learn differently. However, Gagich also argues more broadly that multimodality has become a standard part of daily life and, thus, must be used to meet the multiliteracy (i.e., the different ways of knowing) of diverse young readers. Gagich's perspective on multimodality focuses on addressing readers' sensory differences.

However, the contexts of communication today include more culturally diverse people, and simply using multiple modes of communicating to the different senses neither guarantees access to information nor transmittance of the intended meaning due to other barriers. One profound barrier to comprehending technical instructions is the diverse, culture-based literacies of the people to whom we are communicating. It is more likely, for all of the aforementioned reasons, that the technical instructions we design today will be read simultaneously by people from different cultures. Thus, cross-cultural resonance with a target community of diverse readers requires a different strategy when designing technical instructions. This chapter extends Gagich's modes of communicating to readers' multisensory literacies—linguistic, visual, spatial, gestural, and aural—to include their cultural literacies including language, aesthetic, sensory, technical, geographic, generational, socioeconomic, gender, racial, and ethnic perception. In the next section, I discuss how aesthetics interface with disciplines (e.g., technical communication and composition) that generate designers of technical instructions. Then, I summarize the long, cross-disciplinary, colonizing history of aesthetics and its negative impact on cultural relations in society leading to the need for a more culturally inclusive approach to the design of multimodal aesthetics that resonate cross-culturally.

Aesthetics, Technical Communication, and Composition

In "The Art of Visual Design: The Rhetoric of Aesthetics in Technical Communication," technical writer Charles Kostelnick summarizes how visual aesthetics (i.e., artistic beauty) has been a part of technical communication for centuries citing historical, fine art drawings of technologies and even technical instructions visually translated into a comic strip. Kostelnick analyzes each technical art piece's aesthetics in terms of its rhetorical impact, that is, its ability to arouse emotion and meaningful "audience engagement" (8). Kostelnick argues that visual aesthetics have the ability to engage and persuade the audience by appealing to their emotions and engendering their trust. (7) Visual aesthetics function successfully because of the "cultural knowledge [of beauty] embedded" in them that enables the

"audience's" tacit recognition and understanding of the beauty reflected in their design. (6) One may incorrectly glean from this paper that there are *universal* principles for designing information. Another misleading takeaway from Kostelnick's paper may be that the sense of sight is the privileged mode in the communication process.

A broader discussion of aesthetics that shares functional value across more sensory modes can be accessed through "Reclaiming Experience: The Aesthetic and Multimodal Composition" (https://bit.ly/2RJCbl2). In this chapter, communication studies scholar Aimée Knight analyzes aesthetics as it relates to multimodal, media-based contexts of communication that facilitate meaningful 'experiences' with text beyond the sense of sight, to also include senses of sound and touch. Aesthetic sensory perception then is not limited to the visual but is embodied in a multisensory manner through the reader's lived experience in a media-infused world.

It is important to note that both Kostelnick and Knight acknowledge the importance of aesthetics theory in historical and contemporary knowledge within their related fields of technical communication and composition, respectively.

However, unlike Kostelnick, Knight, at the very least, also acknowledges that aesthetics' history and knowledge are colonized or dominated by one cultural perspective. In reference to "Western European views of aesthetics," Knight writes:

> It is important for teachers and scholars of multimodal composition to understand the story of the aesthetic . . . involves the struggle to establish the source and status of knowledge itself. I see this as a long, painful struggle filled with prized beliefs and cherished values and what gets "to count." This story has privileged certain *ways of knowing* over others, the influence of which has extended to how we teach multimodal composition today. Understanding this story helps teachers and scholars to reimagine what the aesthetic is currently in the context of multimodal composition—and what it still can be. (149)

It is important for students, too, to know the cultural history of aesthetics as students should have agency in their education and the pedagogical process. It is particularly important for designers of technical instructions who are attempting to communicate cross-culturally to understand the trauma of racial oppression that members of their targeted communities of readers who are Black, Indigenous, and People of Color (BIPOC) have endured throughout history and continue to endure in

contemporary society. In the next section of this chapter, I shed light on this trauma by briefly summarizing the origin of aesthetics as beauty from the perspective of culture and the impact of this colonized definition of beauty on society leading to the systemic exclusion of BIPOC voices from cross-disciplinary knowledge systems in the West, including technical communication.

A Brief Look at the History of Aesthetics as Beauty Through a Cultural Lens

The scholarly debate on aesthetics spans many centuries and disciplines and has had a significant impact on society in ways that have informed various disciplines including design, technical communication, composition, and their evolving pedagogies, histories, and theories. Within design's canon, aesthetics has Western roots dating as far back as ancient Greek philosophy where the term aesthetics originates from the Greek word 'aesthesis,' which means sensory perception. In ancient times, aesthetics meant a kind of 'absolute' sensation. Greek philosophers Plato and Plotinus purported that aesthetics as beauty is "an ultimate value" to be pursued for its own sake; it converges with truth and goodness (Scruton 1). For instance, in The Six Enneads, Plotinus notes that "truth, beauty, and goodness are attributes of the deity" (2). In 1735 German philosopher Alexander G. Baumgarten defined aesthetics as taste or judgment of beauty in relation specifically to determining what constitutes art and the aesthetic experience of pleasure that it provides. He affirmed the assertions of the ancient Greeks, saying:

> "Beauty is the perfect perceived by the senses. Truth is the perfect perceived by reason. The good is the perfect attained by the moral will." (Baumgarten as cited in Maude 143)

Subsequently, in 1790 German philosopher Kant, at first, disagreeing with Baumgarten's trinity, later conformed to it and introduced "judgment of taste" as an experience of beauty that is based on universal subjective feelings of pleasure or displeasure (Kant).

Unfortunately, in the hands of racist scientists, Baumgarten's trinity and Kant's universal judgment of taste became a horrifying framework for uniting white supremacist aesthetics with white power politics of slavery in the 19th and 20th centuries. For instance, around the early 19th-century, a profoundly disturbing conversation among thought leaders began to coalesce around racial ranking and the inferiority of "darker races." Within this cross-disciplinary conversation, aesthetics was instrumental in laying

the foundation for the rampant oppression of Black people in the 20th-century society and subsequently in the discipline of design. Paleontologist Stephen J. Gould in his book "The Mismeasure of Man" provides compelling evidence of aesthetic racism grounded in an absurd argument based on a monogenetic theory of degeneration that credited climate differences for racial differences among the descendants of Adam and Eve:

> "The most temperate climate lies between the 40th and 50th degree of latitude, and it produces the most handsome and beautiful men. It is from this climate that the ideas of the genuine color of mankind, and of the various degrees of beauty ought to be derived." The idea was that inferior non-white races could be improved in appropriate environments. Some thought leaders of the 19th-century were of a different opinion, however; they believed that racial differences were the result of the existence of separate biological species—descendants of different Adams and Eves but still with white people being the superior race." (Gould 73-74)

Gould goes on to further confront another racist argument from *"Account of the Regular Gradation in Man"* where surgeon Charles White provides the aesthetic criteria for the rank of the Caucasian (white) race as superior:

> "Where else but among Caucasians, [White] argued, can we find . . . that nobly arched head, containing such a quantity of brain . . . Where that variety of features, and fullness of expression; those long, flowing, graceful ringlets; that majestic beard, those rosy cheeks and coral lips? Where that . . . noble gait? In what other quarter of the globe shall we find the blush that overspreads the soft features of the beautiful women of Europe, that emblem of modesty, of delicate feelings . . . where, except on the bosom of the European woman, two such plump and snowy white hemispheres, tipt with vermillion." (Stanton 17; as cited in Gould 73)

These prejudiced associations of aesthetics as divine beauty defined by and manifested by white Europeans set the stage for the unconscionable proliferation of aesthetic oppression of Black, Indigenous, and People of Color (BIPOC) in North America. For instance, Jim Crow-era aesthetic oppression included commercialized offensive stereotypical and exaggerated caricatures of black features that populated various forms of print media including advertisements designed to sell beauty through personal care products (e.g., soap and skin-lightening creams).

Today, the problem of aesthetic racial oppression continues systemically, for instance, in the design of urban infrastructure that segregates BIPOC communities that are economically challenged. Consequently, in "Race After Technology," sociologist Ruha Benjamin delivers an appropriately blistering and pointed critique of design as a player in contemporary aesthetic racial oppression. Specifically, she notes that "if design as a branded methodology is elevated, then other forms of generic human activity are diminished" (Benjamin 179). But is it the design method that oppresses or rather the internal or internalized racism of the designer using the approach that facilitates the creation or replication of standards of beauty grounded in centuries-old racism? Is it the mind of the designer that needs to be decolonized or freed from domination by another? Benjamin goes further to ask: ". . . would Design Thinking have helped Rosa Parks 'design' the Montgomery Bus Boycott" (176)? Building on Constanza-Schock's claim of the "universality of design as a human activity" (Costanza-Schock; cited in Benjamin 178) instead of a specialized one requiring formal training, one could argue that design thinking *did* help Rosa Parks to design the Montgomery Bus Boycott. However, as Benjamin notes further, "oppressed people and places are rarely cited for their many inventions" (Benjamin 178).

What does this mean for designers of technical instructions? When the goal is to achieve cultural resonance in the communication of information like technical instructions, the process of designing that information must change to be inclusive of reader input. In the next section, I posit that writers of technical instructions should take a culturally inclusive approach to yield cross-cultural resonance with diverse readers. I then introduce a culturally inclusive approach to design multimodal technical instructions that resonate cross-culturally by 1) representing culture appropriately from knowledge gleaned conducting primary *and* secondary research, and 2) enabling cross-cultural interpretation through interactive aesthetics.

The Culturally Inclusive Design of Multimodal Technical Instructions for Cross-Cultural Resonance

What Benjamin's critique of design calls for is a radical pivot from pre-conceived methods and principles for designing *universal* aesthetics that are deficit-based, putting the targeted reader in the position of "audience" or spectator and the designer in the position of expert or person with all of

the knowledge. Primary research that is more asset-based entails designing collaboratively virtually or, preferably, in person with a diverse sampling of the targeted reader community so that the findings can be more generalizable to a larger group of readers. Virtual interaction with readers can be used in place of face-to-face engagement when there is a lack of resources or there is a real or measurable threat to one's life, like that posed during the 2020 COVID pandemic.

Engagement with the target community of diverse readers can range from conducting a focus group with a diverse sampling of readers to a participatory writing session. A focus group entails facilitating a diverse sampling of readers (typically around 25 total, with 5-8 simultaneously) giving you feedback on an iteration of the instructional text that the author has prepared in advance. Whereas a participatory writing session might entail engaging a diverse sampling of at least 35 readers in co-writing the instructional content from the beginning to end. Other approaches of primary research might include ethnographic observations of people using the technology within their cultural contexts. Ethnography is simply when we go out and observe people in their personal or work environments.

Depending on the nature or complexity of the technology, primary research efforts may also need to integrate a range of cross-disciplinary and professional and lay expertise in addition to collaboration between you and the readers over time. In inquiry-based or client-driven technical writing projects, one should solicit the input of experts from other disciplines. In inquiry-based technical writing projects, you initiate the writing project; whereas, in client-driven technical writing projects, the client initiates the technical writing project and hires you to carry it out. In inquiry-based technical writing projects, you can connect with stakeholders including experts from other disciplines through academic institutions and professional organizations. You can connect with members of the public through networking with community organizations (e.g., libraries, schools, etc.). Whereas, in client-driven technical writing projects, the client will likely assist in accessing stakeholder communities as they deem necessary.

Designing technical instructions with a culturally-inclusive approach that involves primary research is too complex to simply get it right the first time. The design process should be iterative because of the many stakeholders that may be involved. Iteration refers to something that repeats itself but improves over each cycle. Over time, the instructions will find the final form after multiple interactions between you and the different

stakeholders individually and collectively throughout the writing process. Knowledge, values, and insights are exchanged and—most importantly—integrated into the evolving design. Thus, the designer and stakeholders are collaboratively controlling the decision-making that leads to the final instructional content.

Conducting secondary research of archives and open data formatively and summatively in the design process can supplement or enhance primary research efforts well though not perfectly. For instance, when used formatively, prior to primary research and to inform the interaction with culturally diverse readers, one cannot rely solely on historical, secondary data as it may be dated. Other qualitative strategies for information gathering (e.g., survey instruments) may need to be included. When used summatively to inform primary research findings on how to communicate across cultures with multimodal aesthetics, one must take precautions when secondary research findings contradict or counter primary research findings as the secondary research findings may be based on culturally-oppressive information like the aesthetics history described earlier in this chapter. To circumvent this problem, one must extend the scope of secondary research into the dark peripheries outside of design's white Western canon and access the contributions of disenfranchised BIPOC people to design, like "BIPOC Design History" (https://bipocdesignhistory.com/Index), where one will find voices left out of historical conversations on design. Within the dark peripheries, one can also find evidence of misinformation on the origins of select knowledge within the discipline's canon like that noted in "The African Origins of Swiss Design" (Bennett "The African Roots of Swiss Design") and "Follow the Golden Ratio from Africa to the Bauhaus for a Cross-Cultural Aesthetic" (Bennett "Follow the Golden Ratio from Africa to the Bauhaus for a Cross-Cultural Aesthetic for Images").

Findings from primary and secondary research inform the next phase of the culturally inclusive approach this chapter introduces. During this second phase, the designer of the technical instructions should integrate interactive aesthetics, that is tech-mediated sensory aesthetics that facilitate the reader's active and multisensory interpretation to yield cross-cultural resonance. The second phase of the culturally inclusive design process begins with the development of a plan for the aesthetic form each mode will take and how to integrate interactive aesthetics so that the instructions will communicate multimodally to the diverse readers' cultural preferences and offer opportunities for active and multisensory interpretation.

Interactive aesthetics (Bennett "Interactive Aesthetics") is a design theory that aims to bring to the forefront two things: 1) the designer's ethical responsibility in understanding the cultural impact of what they design, and 2) opportunities for remote collaboration that could facilitate stakeholder participation in the design process, including both end-users as well as other stakeholders (e.g., clients, printers, etc.). The initial idea was that with the development of more dynamic design forms (Bennett "Dynamic Interactive Aesthetics") designers could bring remotely located underserved communities into the process of designing future technologies like socially intelligent robots (Bennett "Creatively Designing Socially Intelligent Robots") to better serve the needs of underserved communities. Between the time that the interactive aesthetics (IA) paper was published and now, I've engaged in a collaborative research project centered around the collaborative and culturally inclusive design of a web-based technology called "Culturally Situated Design Tools" (see csdt.org) that teaches BIPOC youth about algorithms embedded in cultural artifacts from their cultural heritage. The next section of this chapter offers guidelines I've derived from this 20-year-plus research endeavor for translating aesthetics into interactive aesthetics starting with a plan.

Plan for Translating Aesthetics Into Interactive Aesthetics Towards Cross-Cultural Resonance

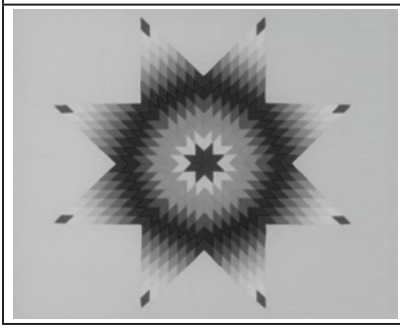
An algorithm (AL-go-rith-em) is basically a set of steps for completing a task. For instance, a recipe is an algorithm. Even traveling from the airport to home has many different *algorithms* ranging from walking and taking public transportation to driving among others. Heritage algorithm refers to an algorithm that is culturally-based. (Bennett "Ethnocomputational Creativity in STEAM Education: A Cultural Framework for Generative Justice") For instance, cornrow braiding is a heritage algorithm from Africa and its diaspora.

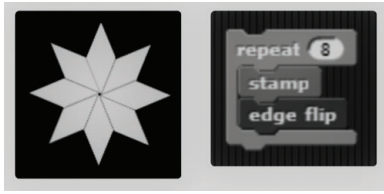
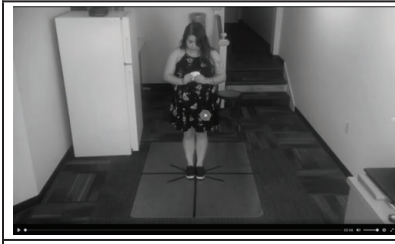
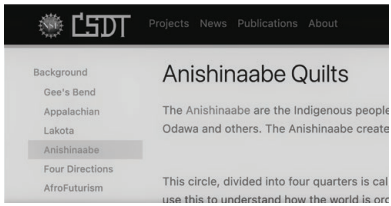
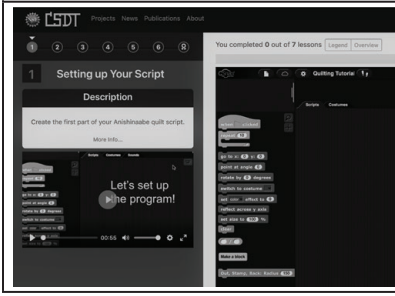
Table 15.1 shows a plan to communicate the text 'algorithm' multimodally, culturally, and cross-culturally using interactive aesthetics. Column one shows the different modes for communicating; whereas column two shows how the text could take tangible or intangible, aesthetic form. Column three shows how the aesthetic form from column two could be extended to address any cultural dissonance that may arise in the communication process. A common feature of the culturally responsive forms listed in column two is their reliance on interactivity (i.e., active, multisensory engagement) between each mode's form and the reader.

Table 15.1 Plan for Communicating Instructions Multimodally with Interactive Aesthetics to Yield Cross-Cultural Resonance

Modes	**Aesthetic form**	**Interactive Aesthetics**
Visual	Image of code	Visual treatments and representations gleaned from primary/secondary research that reflects different cultures
		Verbal translations through roll-over images
Linguistic	Typeset text providing steps for completing a task	Language translations
Spatial	Positioning of steps in order	Positioning of steps in multiple orders of culturally-based understanding and heritage
Gestural	A computer enacts the steps to produce an action	Non-verbal communication produces the action; interaction with hyperlinked information gives way to more information (e.g., QR code, hypertext)
Aural	Sound verbalizes each step	Sound verbalizes each step in a culturally appropriate manner
		Sound technology translates a text (e.g., a word in a given language is translated into the reader's language) or image (e.g., alt-text enables people who cannot see to have access to the stories that images tell.) or aesthetic treatment (e.g., the meaning of colors, icons, symbols, etc. are translated)
Cultural	Image, sound, text, non-verbal communication, position or place	Culturally-specific representations of heritage algorithms that resonate with the culture of the reader

Table 15.2 Sample Implementation of the Plan in Table 15.1 across multiple Modes for Cross-cultural Resonance.

Aesthetic form realized	**V**	**L**	**S**	**G**	**A**	**C**
	X					X

Aesthetic form realized	V	L	S	G	A	C
	X		X			X
	X	X	X	X	X	X
	X			X	X	X
	X	X		X	X	X
	X			X	X	

Notes: (V=Visual, L=Linguistic, S=Spatial, G=Gestural, A=Aural, C=Cultural). Please access the alt text for each image to view a description of what is being communicated.

Implementation of the plan is where the designer applies their creative ideas. For instance, Table 15.2 shows the ways that my research team decided to implement the plan to teach BIPOC students about algorithms.

Conclusion

Today, indeed, a cross-cultural challenge presents itself when we sit down to write technical instructions. Even in the 'melting pot' state of diversity in the current United States of America and the 'flat world' afforded by evolving global access to technological innovation, we cannot assume that we possess all of the cultural knowledge necessary to communicate instructions effectively to diverse readers. Thus, this chapter proposed a culturally inclusive approach to designing multimodal technical instructions that can better resonate across cultures through the aesthetic treatment of the modes.

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Teacher Resources

Overview and Teaching Strategies

> *Thus is revealed the total existence of writing: a text is made of multiple writings, drawn from many cultures and entering into mutual relations of dialogue, parody, contestation, but there is one place where this multiplicity is focused and that place is the reader, not as was hitherto said, the author. We are now beginning to let ourselves be fooled no longer by the arrogant antiphrastical recriminations of good society in favor of the very thing it sets aside, ignores, smothers, or destroys; we know that to give writing its future, it is necessary to overthrow the myth: the birth of the reader must be at the cost of the death of the author.*
>
> --Roland Barthes, The Death of the Author, p. 148

Access to technologies can extend globally. However, as this chapter noted, locally within the United States of America, ethnic and cultural diversity is increasing. Thus, technical writing students, whether addressing a global or local target community, will grapple with the challenge of communicating to diverse readers. To address this challenge, instructors may supplement students' writing knowledge with training in visual communication design to acquire applied skills, strategies, and techniques to relay information aesthetically and cross-culturally. They may even integrate graphic designers as guest speakers in the course schedule to consult on how to translate the instructions visually and aesthetically.

These traditional approaches tend to keep the design of the technical instructions focused on what the author intends contrary to Barthes' perspective that the reader should be and is the focus of the communication. Since the goal essentially is to achieve cultural resonance in the communication of technical instructions, the process of designing the instructions must change to be more focused on the reader. Instead of communicating to diverse readers and users, technical communicators should pivot towards communicating with them. Teaching the next generation of professional technical communicators entails teaching them a culturally inclusive approach to technical writing that yields cross-cultural resonance with diverse readers.

The culturally inclusive approach introduced in this chapter can be used to design multimodal technical instructions that resonate cross-culturally by 1) representing culture appropriately from knowledge gleaned conducting primary and secondary research, and 2) enabling cross-cultural interpretation through interactive aesthetics. The approach aligns with a curriculum that teaches technical writing as a process of inquiry in which students engage in primary and secondary research towards developing a prototype of how instructions should be multimodally-designed with interactive aesthetics to yield cross-cultural resonance. Primary research entails engaging with the readers to gather creative insight. This interaction may take the form of surveys, questionnaires, ethnography, and other qualitative and quantitative instruments. Whereas secondary research entails accessing public archives and libraries of text and images that provide credible information that relates to the subject matter or technology or getting to know the culture of the readers.

Applied Discussion

Using the following table as a guide, independently or in small groups discuss and plan how you would go about communicating instructions for an existing technology multimodally with interactive aesthetics to yield cross-cultural resonance. To inform your development of the plan:

- Conduct secondary research to learn about the target community of readers.
- Conduct primary research to learn about how the target community of readers engage with the chosen technology.

Implement the plan you created previously by developing technical instructions that use interactive aesthetics to yield cross-cultural resonance (see Table 1). Then, use Table 2 to document the aesthetic forms realized that reflect your choices in Table 1.

Table 1

Modes	Aesthetic form	Interactive Aesthetics
Visual	Images and visual treatments	Visual treatments and representations gleaned from primary/secondary research that reflects different cultures in their motifs and designs
		Verbal translations through rollover images
Linguistic	Typeset text	Language translations

Modes	**Aesthetic form**	**Interactive Aesthetics**
Spatial	Hierarchical placement of verbal and visual elements	Positioning of information according to culturally-based understanding and heritage
Gestural	A performance	Non-verbal communication produces the action; interaction with hyperlinked information gives way to more information (e.g., QR code, hypertext)
Aural	Sound snippets	Sound verbalizes each step in a culturally appropriate manner
		Sound technology translates a text (e.g., a word in a given language is translated into the reader's language) or image (e.g., alt-text enables people who cannot see to have access to the stories that images tell.) or aesthetic treatment (e.g., the meaning of colors, icons, symbols, etc. are translated)
Cultural	Image, sound, text, non-verbal communication, position or place	Culturally-specific representations of information that resonate with the culture of the reader

Table 2

Aesthetic form realized	**V**	**L**	**S**	**G**	**A**	**C**

To evaluate your technical instructions, conduct primary research to learn about how the target community of readers engage with them and use the knowledge gained to iterate the technical instructions.