Digital Space, Ecology, and Composition: Translingual Online Writing

Philip Hayek, Manako Yabe
University of Illinois at Chicago

Abstract

As a hearing editor and a deaf writer, we share our personal story about how we have developed our own communication that bridges and connects different cultures, languages, and modes of communication through online writing sessions for the doctoral dissertation. We seek to discover best practices for this hybrid modality by investigating how and why our online writing experience was so successful. By viewing this writing situation as an ecology of composition, we were able to efface so-called "barriers" to communication such as linguistic and cultural differences, and differences in ability. This research has applications for any cross-cultural or cross-ability writing situations.

Introduction

Posthumanism encourages us to look at composing situations as sites of distributed agency, not just between reader and writer, but shared with objects, systems, and ecologies (Barrett-Fox & Clegg, 2018). Theories of ecologies of composition and rhetorical ecologies (Edbauer, 2005; Syverson, 1999) provide a framework to understand the role of technology in mediating writing situations. The ecological perspective is not a different methodology or theory, but rather an attempt to *see differently*. Ecological perspectives on writing take into account complex adaptive systems theories to explore attributes, processes, and relationships that occur while writing. By adopting the ecological perspective, we paid attention to all aspects of our ecology of composition, from room design to software applications, to personal interactions to linguistic and cultural differences.

As a hearing editor, Philip Hayek, and a deaf writer, Manako Yabe, we share our personal story of meeting over the course of nine months to work on editing a doctoral dissertation. The editor is a native English user. The writer is a native Japanese user and uses English and American Sign Language (ASL) as non-native languages. With these linguistic differences also come cultural differences, not only between American and Japanese cultures, but also between Hearing and Deaf cultures. We faced a unique communication setting that involved different cultures, languages, and communication technologies. We attempted to apply a strategy of universal design during our encounters, and we have developed our new hybrid communication modality through the use of Google Docs, which combines both a word document and real-time text chat. We edited the same document simultaneously, while explaining our edits and asking clarifying questions in the chat feature in the Google Doc. In addition to this online space, we were also meeting in person. The writer worked on a laptop while the editor worked on a desktop with a 27-inch screen that allowed both of us to view the Google Doc and the chat on the same screen.
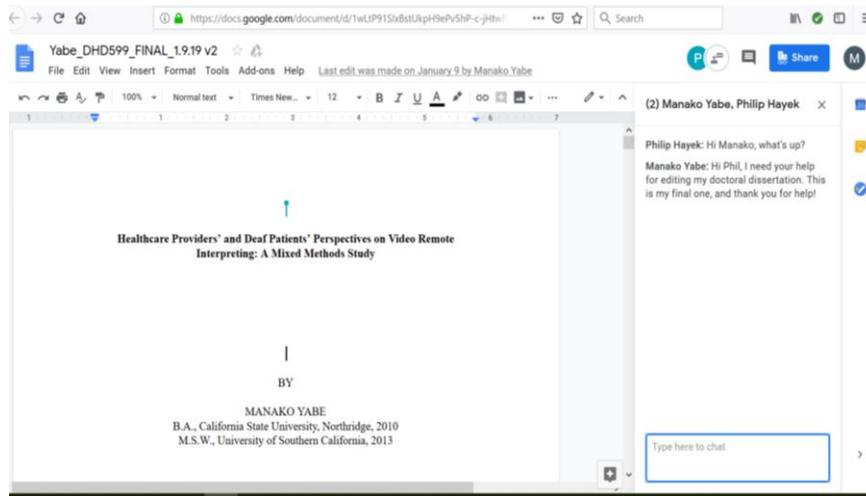
Figure 1. Google Doc - An example of doctoral dissertation writing

Our experience can be called, "Translingual Online Writing," an idea that came from Horner, Lu, Royster, and Trimbur (2011)'s translingualism, which recognizes and develops an understanding of cross-language encounters between editors and writers - which exactly applies to our translingual writing experience through Google Docs. However, we noticed a gap in Horner, Lum Royster, and Timbur (2011)'s translingualism, in which the authors define a difference in language, "not as a barrier to overcome or as a problem to manage, but as a resource for producing meaning in writing, speaking, reading, and listening" (p.303). In other words, this theory focuses on only spoken languages, but not sign languages. We argue that including "signing" is an important addition to this scholarly statement. To fill the gaps of Horner, Lum Royster, and Timbur (2011)'s translingualism, we looked for theories in rhetoric and composition that could inform what we were experiencing in practice. The purpose and the goal of our presentation is to share our story and to explain how and why our online writing experience was so successful.

Ridolfo and Devoss (2009)'s rhetorical velocity is a theory that can demonstrate how the text and discourse move through time and space when mediated by the technology we use. Yet, this theory focuses on the writing and publishing process through media, but not online collaborative writing. We were more interested in the rhetorical canon of invention, rather than delivery. Elbow (2012)'s time and space also can allow us to recognize kairotic moments when we interact with each other in virtual and digital spaces. However, the theory discusses the writing process in physical space, but not virtual space. In our unique writing situation, the editor, Hayek, and writer, Yabe, met both physically, in person, while also simultaneously occupying a virtual space. We were in two places at once. Edbauer (2005)'s rhetorical ecology allows us to explain how social fields can encompass physical and environmental factors that can affect the writing process. Access to technology was one example of a social field, and without this access, we would be unable to communicate and collaborate online. Looking at how the social fields impact the composing process helps us understand why our online writing was successful. Yet, this theory mainly discussed the rhetoric of health and medicine, and we were interested more in theories of composition.

Recently, Gonzales (2018) proposed her model, *A Revised Rhetoric of Translation*, which helps us to identify language transformation and what we see taking place during translation moments, but also how these visible practices are affected in histories and experiences of communities. Although her model focuses on the language transformation among multilingual "speakers" such as Google

Translation, we argue to add the statement that this language transformation should include other multilingual "signers," in addition to other digital writing, such as Google Docs and Google Slides.

Furthermore, Propen (2012) explored "visual-material rhetoric" based on her studies of space, the body, and materiality, by adapting from Michel Foucault's theory of heterotopias with Carole Blair's theory of material theoretic. In a similar situation, we use Syverson's *Ecological Matrix* to describe something more than a "one-way approach" to the linguistic dimension, visual-material dimension, but in addition to physiological, social, spatial, and temporal dimensions to put the whole story together in our translingual writing experiences.

In addition, we use Donella Meadows' *Thinking in Systems: A Primer* (2009) to broaden our understanding of our writing situation as a complex system, and also Edwin Hutchins' *Cognition in the Wild* (1994) to understand how human cognition functions in systems. For example, Meadows encourages her readers to pay attention to the behaviors that emerge in a system to deduce the purposes of the system. Furthermore, she argues that the system can cause its own behavior. Originally, we wanted to know how to use and control the technology in our writing situation, rather than how to identify the behaviors that the system encourages. The feedback structures that are built into the Google Docs software encourage constant and overlapping mediation between the writer and the editor, and eventually efface differences in language, culture, and ability.

Syverson's Ecology Matrix

We use Syverson (1999)'s understanding of complex systems and ecological systems to analyze our unique writing situation. Because we met simultaneously online and in person, the additional feedback in the form of body language, confused or affirmative facial expressions, and the ability to recognize when either of us was typing to compose a comment created a writing situation that resulted in the kind of ecology that Syverson (1999) explains as self-organizing, adaptive, and dynamic. For example, a simple affirmative nod of the head signals to the other person that we agree on a particular edit. Conversely, a confused look and a shrug of the shoulders signals that we need to combine our efforts to tackle a larger edit, such as restructuring an entire paragraph. In the chat feature we can explain our confusion, and these layers of feedback contribute to the coherence of the process and the document.

Our composing situation demonstrates the four attributes of an ecology outlined by Syverson: our thought process was *distributed* between writers, and between writers and technology; the process *emerged* as self-organizing as the different technologies mediated communication and encouraged certain behaviors; these behaviors resulted in written communication that *embodies* our physical situation of meeting in a digital space; and the knowledge produced is *enacted* through the technology we used.

We analyze our unique ecology of composition using the five analytical dimensions of complex systems (physical-material, social, psychological, temporal, and spatial) provided by Syverson (1999), and conclude that the physical-material dimension has changed to include shared digital spaces, and these structural changes mediate conflicts or differences that might arise in the other dimensions (See Figure 2). With this in mind, we can develop and design best practices for building ecologies of composition that optimize the technology in the physical-material dimension to better serve and mediate the other dimensions in play. Ecologies are made up of complex systems, and complex systems are never in equilibrium, but *dynamic* equilibrium (Meadows, 2009, p. 21). They are constantly changing as they are dynamic, adaptive, and self-organizing. With this in mind, trying to overlay an analytical matrix onto any

writing situation will always be an attempt to hit a moving target. Nonetheless, our interpretations of our composing process based on an understanding of ecologies of composition yielded exciting conclusions. In the next section, we give our individual interpretations on Syverson's ecological Matrix as the perspectives of the hearing editor versus the deaf writer.

	Physical	Social	Psychological	Spatial	Temporal
Distribution					
Embodiment					
Emergence					
Enaction					

Figure 2. Syverson's Ecological Matrix (1999, p.23)

Theoretical Application

According to Syverson (1999), the four attributes of an Ecological System include distribution, emergence, embodiment, and enaction. Distribution aligns with posthumanism in that it recognizes that physical and cognitive processes are divided and shared among agents, to include digital technology. Emergence refers to when self-organization arises globally and spontaneously in these networks, as a process of coordination. Embodiment refers to how the writing is dependent on the physical experience. Enaction refers to how the activities and experiences bring forth the textual world as we are writing it (Syverson, 1999). Our experience was heavily mediated and distributed through digital technologies and digital spaces, leading to a surprising self-organization between editor and writer that resulted in the invention of not only textual discourse but also of a new, shared role of reader in the composing process. Following Meadows' argument that "purposes are deduced from behavior, not from rhetoric or stated goals," (Meadows, 2009), our emerging behavior reveals a purpose of the system: the system intends for the human agents to inhabit a specific role in the composing process.

In the beginning, we tried to fill in all of the boxes in Syverson's Ecological Matrix (Figure 2), but we found it was challenging to put all of the information in a firm matrix. It makes sense that each field of the matrix would necessarily be dynamic and adaptive, and resist being placed in a static table. Nonetheless, as an exercise we made an attempt to define the 5 dimensions of analysis as they apply to our unique writing situation. Beginning with the physical-material, we immediately recognized how technology has expanded this dimension. The physical-material dimension includes the physical computers we worked with (screens and keyboards), but now we must take into consideration the digital, online environment of the Google Doc. The expansion of this physical-material dimension has a tremendous impact on the ecology as a whole. Being able to exist in this digital space allowed the writer and editor to overcome social and linguistic obstacles in the physical world.

As for an example of the social dimension, we found that the writer's dissertation language was rooted in Deaf culture, which general audiences might not be familiar with. This could have potentially led to impasses, if not for how the technology allowed us to meet in the digital space. The deaf writer was able to ask for feedback to the hearing editor about hearing culture and to clarify the message to the audience. For instance, the deaf writer was able to explain in the chat function that capitalized Deaf people refers to people who belong to the Deaf community and use American Sign Language, while non-capitalized deaf people refers to people who do not belong to the Deaf community. The editor might have understood the technique of capitalization, but without the chat function in the digital space he would not be aware of the impact and significance of these distinctions within the Deaf community.

As for an example of the physiological dimension, our thoughts were indeed affected by technology. By typing what we said, we experienced different cognitive processes than when we speak or sign. The writer sometimes typed messages with mixed grammar of Japanese, American Sign Language, and English. The editor often used idioms and references that needed further clarification, all of which was filtered through the physical act of typing. Our cognitive processes were different when typing, speaking, and signing.

As for an example of the spatial dimension, the editor had a 27-inch desktop computer, and the writer had her own laptop. We met in person and used online writing technology. We met in person and shared body language and facial cues, while communicating virtually on two screens. We were able to access the space to see the document and real-time chat through Google Docs in addition to face and body expression to engage discussions. Without both digital and physical space, how could we access the technology, deliver messages, and engage discussions?

As for an example of the temporal dimension, communication by writing back and forth requires time and space. Communication with an interpreter might be efficient, yet, it would require lag-time and sufficient space to place, and it might be difficult to assess a writer's writing style in English, which is different from verbal language in ASL. In addition, we would have to find a regular interpreter for the sessions ahead of time Communication by Google Docs was able to mediate these limitations, using real-time chat, virtual space, and direct assessment in the doc. Google Docs encourages constant and quick reactions within the system.

However, we found it was challenging to explain how our experience demonstrates the four attributes of an ecology. We shared this concern with Syverson, and she stated that the application of these attributes is only one approach to using complex adaptive systems theories and ecological perspectives. Meadows (2009) offers some other approaches and attributes of complex systems (M. Syverson, Email Conversation, 2019, July 10). Thus, we found that it was necessary to explore a new theoretical approach beyond Syverson's ecological matrix. In the next section, we share our perspectives how Google Docs was beneficial for our online translingual writing experiences.

The Benefit of Google Docs

The Editor's Perspectives

Before we began working on the writer's dissertation, we communicated with each other through an interpreter. This mode of communication was generally successful, if not without issues of mediation. Every now and then, a message would get lost on its way from the editor to the writer, or vice versa. The interpreter would then interrupt the discourse to mediate and try to recover the lost message, either by

asking clarifying questions of the editor, or by signing to the writer. Some messages were lost due to differences in cultural references, idioms, and figures of speech. These differences needed to be mediated by the interpreter to reestablish stasis and move forward with the discourse. These differences arise in all communication and must be mediated by the interlocutors, but our situation differed in that it relied on a physical, human interpreter. Arguably, this human interpreter represents the most advanced and practical technology with which to mediate communication between the writer and the editor. And it worked well, even if the interpreter was somewhat exhausted by the end of our conversations. We had many engaging and interesting conversations about the writer's 's dissertation and how theories of rhetoric apply to her research, all facilitated by the interpreter.

The writer's 's dissertation looked at the preferences and sentiment surrounding Video Remote Interpreting (VRI) in health care settings for Deaf and Hard of Hearing (DHH) patients. Generally speaking, the DHH patients and health care professionals preferred in-person interpreters for reasons ranging from sentiment to reliability of the technology. This makes sense to the editor, as he, too, had seen how well we communicated with each other via in-person interpreter. Communicating through this interpreter, we had developed a strong professional relationship with overlapping research interests. So, when the writer emailed the editor to ask if he might be available to meet in person and help proofread and edit her dissertation he jumped at the chance, without really giving any thought to how we would communicate during that process without an interpreter. Having used Google Docs before for collaborative writing projects, he knew that they would be able to have a shared view of the document and be able to use the chat function.

We met in person, and we "met" in the Google Doc over the course of 9 months while editing and finalizing her dissertation. We talked about everything from our own personal philosophies to the suggestions her dissertation committee had just given her. We edited sentences and whole sections together simultaneously, all the while explaining our edits and concerns with each other through the chat function. She explained the taxonomy she was using in her dissertation that defines DHH culture and communication practices, in order that the editor could suggest how she might make those distinctions clear to the audience. The editor made suggestions for how her research intersected with rhetorical theory and how those theories might enrich her discussion. For over 9 months we worked on this dissertation, communicating, and writing and editing together for hours on end, all without the interpreter.

Syverson's theory of an ecology of composition uses complexity theory to offer a framework for analyzing this unique writing situation. This theory helped us to answer the question of how our cognition and agency could be distributed rather than individual, and what role the technology plays in this distribution. Distribution and emergence are the attributes of an ecology that our experience illuminated the most. The distribution of the activities and experiences of this writing situation was not totally a conscious effort by the editor and writer. Our roles of writer and editor had already been established when we met to work on the document, but in practice we both embodied the role of *reader*, searching the document for mistakes or lapses in clarity, or responding to what Manako's committee had requested or pointed out. The role of reader in our situation best describes our actions. While working together inside the document, we inhabited this same role, or perhaps we shared the role of the reader. Our behavior emerged as highly organized, though not controlled, or absolutely determined by any particular characteristic of the situation. Thus, our writing situation fits neatly within theories of complex systems, which argue that patterns of activity emerge from random instinctual behaviors of agents within the system (Kretzschmar, 2015). Our instincts to act in the role of reader

emerged to organize the patterns of activity in the writing situation, and these behaviors were reinforced by the larger ecology.

Our discovery of our roles as readers led to the work being shared, not divided. The attribute of distribution in our particular ecology of composition does not mean division or allotment, but rather a shared intent. Together we located problem areas, chatted about what was wrong and how to fix it, and sometimes we would even edit the same sentence simultaneously. This emerging self-organization relied heavily on the technology that was able to mediate the four attributes of an ecology of composition: distribution, emergence, embodiment and enaction of our writing situation.

With digital spaces offering a stable and shared physical material dimension, we were able to find stasis in the social dimension by using the digital space of the chat feature to talk about our backgrounds, families, hobbies, interests and everything in between. While editing we would explain our concerns and edits in the chat as well, engaging in meta-cognition in the psychological dimension. Any differences we have in these five dimensions, when applied to our writing situation, were mediated by such a comfortable and shared physical-material space. The digital spaces that now comprise the physical-material dimension in our writing situation provide a stable footing that reinforces behaviors that lead to spontaneous self-organization.

McComiskey argues that the decentered and distributed nature of information increases access but can decrease coherence and continuity (McComiskey, 2015), and he argues that nonlinear document structures increase flexibility but decrease control of purpose and intent. But Meadows (2009) argues that purposes in a system are knowable through the behaviors encouraged in that system, rather than from stated goals, and the digital spaces shared by digital natives reinforce behaviors that mediate and efface differences. In our case, the digital space encouraged "random" instinctual behaviors that led to our embodiment of the role of reader, to include the actions of reading, writing, editing and discussion. This resulted in what Meadows (2009) calls dynamic equilibrium. The definition of reader in this context is meant to try to explain how the affordances of digital spaces informs the intersection of posthumanism and complex systems theory. Barrett-Fox and Clegg notice that writing situations exist in an ambient informational environment (Barrett-Fox & Clegg, 2018) that can either be a flattened information environment or a hierarchical information environment, and that a posthuman awareness in these environments means "a sense of agency distributed between actors, objects, technologies and environments (Barrett-Fox & Clegg, 2018)." The digital space of a Google Doc offers a flattened information environment and seamless distribution of agency that results in the participants becoming shared and equal readers. The "writer," and the "editor," are encouraged by the technology to embody this new and shared role.

The physical and cognitive processes in an ecology of composition are distributed, and the online digital space that now constitutes the physical-material dimension of analysis in these ecologies allows for physical and cognitive processes to be shared and mediated, not divided. Complex systems theory is applicable to every discipline from computer science, to evolutionary biology, to theories of composition and rhetoric. Complex systems theory, or complexity theory, helps us understand how random interaction of large numbers of components can result in the emergence of stable patterns without central control (Kretzschmar, 2015). In these active and dynamic systems, such as an ecology of composition like the one that we shared, information is exchanged, feedback given and received, and behaviors emerge and are reinforced. The stability, or spontaneous self-organizing, or dynamic equilibrium that resulted from our unique ecology was this shared role of reader that embodies every

action and responsibility of reader/writer/editor but claims none of it. Every action and responsibility of reader/writer/editor is shared by this new role of reader, or perhaps, distributed reader.

The Writer's Perspectives

As a writer who has been to writing centers for nearly a decade, the writer has used many different communication tools to work with deaf tutors and hearing tutors. When the writer worked with deaf tutors who were fluent in ASL, she communicated in direct ASL. When she worked with hearing tutors who were non-signers, she used an interpreter, or she used a laptop and iPad to type for communication. As a deaf tutor, she had an opportunity to work with hearing writers, and she used an interpreter for in person tutoring, and used the text chat messenger for online tutoring (Yabe, 2018). When she started to write the doctoral dissertation, she needed to look for an editor who was familiar working with writing majors and also experienced in doctoral dissertation writing. In addition, her dissertation focused on deaf patient-provider communication with VRI, so she needed an editor who was hearing, so that the editor could provide me hearing perspectives to balance the perspectives of Deaf and hearing cultures.

The writer was able to find her editor for editing the doctoral dissertation. Before we started working, we used an interpreter. The interpreter had told the writer that the editor used different language ranges, idioms, and jokes. Yet, she could not see the different ranges without transcribing, because the interpreter provided the concept of the information, but not what actually was said in exact English grammar order in verbal language. When the writer figured out a communication tool and found Google Docs that combines documents and text chat, she finally understood the interpreter's explanation about his language styles that she could not see through ASL translation. Some languages were sometimes impossible to translate into ASL, and vice versa. For example, for translating English into ASL,

> "Publish or perish" in spoken English

> "PUBLISH (or) P-E-R-I-S-H" in ASL (transliterating)

> PERISH (or) PUBLISH in ASL

The interpreter had to transliterate instead of signing the words in ASL, because PERISH and PUBLISH are different signs, which could miss the meaning of idioms. So, the writer had to ask repeating and explaining the meaning of the idioms. And also, she had to figure out why the idioms were used for a specific situation. As for another example in translating ASL into English,

> "WARM-BODY (or) IN-PERSON?" in ASL

> "Warm body interpreter or in-person interpreter?" in spoken English

When the writer interviewed with DHH patients, some DHH patients used "warm-body interpreters" which means in-person interpreters. So, she asked the editor, whether hearing people also use and understand the meaning of "warm-body interpreters." This term was a specific language for the Deaf community. Google Docs helped the writer to communicate directly, identify language uses, and learn new languages.

Beyond the Sessions

We began recognizing that Syverson (1999)'s theory could apply to not only our sessions, but also the writer's own personal communication experiences by using Google Docs in different situations. For instance, as a student, the writer had seen that hearing students also use Google Docs for group projects, like bringing their own laptops, developing slides or papers, typing, and talking in real time in the classroom and outside the classroom. The writer also used this Google Docs for meetings with her faculty members or colleagues. The writer has also seen that her academic groups used Google Docs for signing up for book reviews, and her professors use Google Docs to display their discussion notes during the lectures in the classroom. In addition, the writer used the real-time captions on Google Slides to make the information accessible for everyone at conferences, which is also beneficial for classrooms (Ditch That Textbook, 2018). Thus, we shall bring up other examples from Syverson (1999)'s *Ecological Matrix.*

As an example of the physical-material dimension, Google Docs could keep track of the real-time discussions, which became a transcript after online writing meetings, compared to watching an interpreter and taking notes at the same time, in which a deaf person could have missed some keywords during the discussion.

As an example of the social dimension, Google Docs could use speech to text. If we carry an app of Google Docs on smartphones or laptops, a hearing person who is a non-signer could use speech to text on Google Docs, while a deaf person could type on Google Docs. Sometimes, speech to text does not translate accurately or requires lag-time, like YouTube automatic captions (University of Minnesota Duluth, n.d.). Yet, it could be at least useful for a specific situation, such as if a hearing person were unable to type. But of course, it would depend on good connectivity and available technology equipment, which also applies to the physical-material dimension.

As an example of the physiological dimension, a deaf person might not feel comfortable using an interpreter when discussing private matters, even though the interpreter has the Code of Professional Conduct for confidentiality (Registry of Interpreters for the Deaf, n.d.). For example, the writer felt awkward using a regular interpreter for a specific meeting with her faculty member. In such a situation, she used Google Docs to discuss her private matters. Meanwhile, having a third person or without a third person for a specific discussion can affect our thoughts, word choices, and what information we share to discuss the topics. In addition, if a faculty member had used typing rather than speaking, the faculty member may not share the thoughts than what they actually talked. This was a conflict to balance the shared information.

As an example of the temporal dimension, the writer had used Google Docs as an alternative accommodation, such as unexpected and last-minute meetings. It was often difficult to find an interpreter in short notice because it requires one week ahead to request an interpreter. It worked when staff and the writer had their laptops or computer readily available and internet access.

As an example of the spatial dimension, Google Docs was a flexible communication tool to meet in person or virtually. Either a deaf person or a hearing person join a group discussion virtually, we are able to access equal communication, in addition, we would not have to worry about public transportation access to meet in person, or we could meet virtually at the late evening or weekend.

Access or Accessibility?

When we share our personal interpretations on this theoretical application on our translingual writing sessions and outside sessions, we began recognizing that Google Docs is more than an accommodation. There is no charge, compared to interpreting or captioning services, and it is direct communication, though it does rely on accessibility to the technology. Yet, it is sometimes not accessible for screen readers (Pennsylvania State University, n.d.).

So, Google Docs should be called, rather than an accommodation, a communication tool, or an assistive technology for the DHH community. But if hearing writers use Google Docs for communication, we cannot call this as an accommodation or assistive technology. For example, if we consider a deaf person as a disabled person and we use Google Docs, we would call this an accommodation or assistive technology. Yet, if we consider a deaf person as a linguistic minority person (Lane, 2005), we do not use Google Docs as an accommodation, but we use Google Docs as part of the "language" communication. For example, we may call it "accessibility" when referring to sign language interpreters for deaf people, but we also may call this "access" when referring to a spoken language interpreter for hearing people. We may interpret that "accessibility" is linked to disability rights, while "access" is linked to non-disability rights (Rosen, 2019). Therefore, it depends on our attitudes how to take Google Docs as "access," "accessibility," or a new word - "scaffolding" (M. Syverson, Personal Communication, August 13, 2019).

Furthermore, Google Docs also could be beneficial for diverse student writers: International student writers who are eye learners and study English as grammar translation methods (Nakamaru, 2010); multilingual language student writers who are not comfortable to go to writing centers due to English as a second language (Khan, 2015); military student writers who are also not comfortable to go to writing centers due to seeking-resource as a weakness (Gairott, et al., 2017); writers with disabilities who have limited access to writing centers (Daniels, Babcock, & Daniels, 2015); and non-traditional student writers who feel awkward to go to writing centers due to stereotypes and ageism (Werner, n.d.). Therefore, we propose to explore a possible new theoretical approach to describe a unique technical communication and its transformation of Google Docs.

Conclusion

To end, we conclude that Syverson's *Ecology Matrix* helps us to understand why our online writing process was so effective, in addition to discussions beyond these theories and outside of sessions. By applying the ecological perspective to our writing situation, we have attempted to enumerate different combinations of people, differences, abilities, and technologies that might adapt well to the behaviors and roles that are encouraged in this complex system. We propose questions to ask our readers. What should we call this way, or name or label it, to avoid getting mired in the taxonomy of disability? How does our experience extend or expand Syverson's theory of the ecology of composition? Does our experience alter or inform or change the theory in any way? Does the theory change our understanding of our experience or interaction in any way? Does the theory offer any insight into how we might improve our communication situation? We also welcome readers' feedback and input for our theoretical applications to online writing sessions.

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PHILIP HAYEK, PH.D. returned to Chicago in Fall 2017 to teach at UIC after spending five years at Virginia Tech, where he earned his Ph.D. in Rhetoric and Writing. Before that he spent seven years at DePaul University collecting a bachelor's in English and a master's in Writing, Rhetoric and Discourse.

MANAKO YABE, PH.D., MSW is an alumnus of the University of Illinois at Chicago, where she earned her Ph.D. degree in Disability Studies. Her research interests are Translingualism, Digital Communication Access, and Rhetoric of Health and Medicine.