

Imagined Readers and Hospitable Texts: Global Youths Connect Online

Glynda Hull, University of California, Berkeley

Amy Stornaiuolo, University of Pennsylvania

Laura Sterponi, University of California, Berkeley

In our radically interconnected world, with its global and digital flows of people, capital, and information, texts can rapidly circulate far and wide, across cultural, geographic, and linguistic borders. These texts require of those who would communicate effectively the flexible capacity to make meaning across an increasingly complex range of textual forms that integrate multiple semiotic modalities (Alvermann & McLean, 2007; Hull & Nelson, 2005; Leander & Lewis, 2008; Leu, 2000). These texts also require an ethical capacity to imagine one's literate responsibilities as author and reader in a global world (Hull, Stornaiuolo, & Sahni, 2010; Silverstone, 2007; Smith & Hull, 2012). Carrying their meanings multimodally through language, sound, and image, these texts compel us to consider how authorship and readership are shifting in a networked world. Indeed, authors and audiences now interact in ways previously unimagined (Warschauer & Grimes, 2007), as digital platforms increasingly include social media components that facilitate rapid and widespread sharing, and communication regularly requires interaction with audiences distant and unfamiliar.

In this chapter, we explore the new textuality of a digital and global age by examining how adolescent youths around the world engaged in one kind of reading practice—reading an audience—whereby they imagined projected readers who were potentially different from themselves geographically, culturally, linguistically, and ideologically. Our larger interest is in dimensions of authorship that entail sensitivity to the range of possible interpretations and responses to one's texts, as well as reflexive and hospitable dispositions toward a distant readership. In effect, we wish to explore the ethics of literate practice in a global world.

Although concerns over audience have long been considered a central part of the composing process (e.g., Ede & Lunsford, 1984), we suggest that relationships between authors and audiences have now become more fluid, less bounded, and ever more salient (Lunsford & Ede, 2009). No longer can we separate composing from reading, if ever we could, nor can we assume the division of author from audience in time and space. Instead, composing texts for online audiences involves both imagining a reader of one's assembled artifacts and messages and

interacting with that reader.¹ Young people—and indeed, all respondents—will need to become adept at constructing projected readers and in communicating and/or collaborating with those readers, particularly in transnational and intercultural contexts that require imaginative authorial and readerly leaps across potential geographic, linguistic, and ideological differences (cf. Appadurai, 1996). Thoughtful authors and responsive audiences adept at moving between those roles, we believe, are the quintessential literate identities of a global and digital age (cf. Brandt, 2009).

We demonstrate in this chapter that the youths in our study who were most adept at taking up these roles thoughtfully and artfully were highly strategic in the ways that they did so. Further, we argue that such a capacity to be hospitable readers and writers (cf. Silverstone, 2007)—and to be able to be both simultaneously—is an important ethical dimension of being literate in the 21st century (cf. Coiro, 2012; James, 2009). While much of the ethical impulse around online communication has arisen from concerns regarding bullying or privacy management (cf. Davis, Katz, James, & Santo, 2010; Livingstone & Brake, 2010; Mishna, Cook, Gadalla, Daciuk, & Solomon, 2010), we have found that interpersonal challenges and opportunities to communicate and interact ethically were in fact deeply embedded in small gestures of online communication: greetings, responses, the design of online artifacts to share (Stornaiuolo, Hull, & Sahni, 2011). In this chapter, we describe participants' strategic moves in becoming audience-alert reader/writers online, and in so doing, we also reveal the fortitude with which our young people persisted in the face of daunting challenges—a rhetorical and ethical stance that is consistent with the practice of cosmopolitan citizenship in a global age (cf. Hansen, 2011; Hull et al., 2010; Rizvi, 2009; Stornaiuolo, Hull, & Sahni, 2011).

Reading Online in a Global World

Literacy researchers have argued the importance of determining what it means to read digitally, on the screen, including how such reading differs from engagement offline with paper texts (Leu et al., 2007). Such scholarship is just beginning, but it is indeed promising, as is complementary work in media studies that has demonstrated the relationship between media literacy and academic performance, including reading comprehension (e.g., Hobbs, 2007). Readers bring more and different strategies to bear in comprehending online texts than they do in reading print-based texts (e.g., Castek et al., 2008; Leu Kinzer, Coiro, & Cammack, 2004; Naumann, Richter, Christmann, & Groeben, 2008; Salmerón & García, 2011). Reading online also requires increased self-regulation and inferential reasoning strategies (Coiro & Dobler, 2007) tied to readers' purposes (Zhang & Duke, 2008) and interests (Steinkuehler, Compton-Lilly, & King, 2010). Readers must recruit additional strategies because of the complexity of reading online, in no small part because they are required to engage in self-directed text construction as they chart their own paths through hyperlinked texts (Coiro & Dobler, 2007). Such research on self-directed text construction helps us see reading online as a kind

of composing process (Tierney & Pearson, 1983), with readers actively charting their own paths through online texts via their decisions about which hyperlinks to follow and click. In this way, which the research on online reading has made clear, readers' online communicative practices involve intertwined reading and writing processes that are both active and strategic.

Online communicative practices thereby offer readers new opportunities for interacting with diverse texts, especially multimodal ones that layer together written language with images, sound, and video (Burke & Rowsell, 2008; Rowsell & Burke, 2009). In multimodal texts, the relationships between modes (e.g., between music and image) multiply meaning potentials and provide qualitatively new systems of signification in which the whole is not reducible to its component parts (Hull & Nelson, 2005). Research into adolescents' digital literacies has illustrated the ways that such texts can serve as resources for meaning making (e.g., Black, 2009; Chandler-Olcott & Mahar, 2003; Lewis & Fabos, 2005; Ranker, 2007). For instance, they can offer multiple access points for readers, as young people use their familiarity or facility with one mode, such as music, to scaffold or augment their understanding of the whole. In this way, multimodal texts can offer "potentials for learning" (Bezemer & Kress, 2008, p. 168), affording youths the opportunity to build "rich intertextual landscapes" (Ranker, 2008, p. 229). Multimodal texts can also serve as resources for remixing content across multiple contexts, providing new authoring possibilities and generating textual innovation (Bearne, 2009; Erstad, Gilje, & de Lange, 2007; Forte & Bruckman, 2009; Lam, 2006). However, what we understand about the nature of online composing and reading, including the effects of increasingly multimodal digital textual practices, is still rudimentary, leaving unanswered fundamental questions. How do young people and teachers design "potentials for learning"? How do readers bring particular strategies to bear for making meaning with multimodal texts?

Similarly, we require a more nuanced understanding of how online reading practices are shaped by the interactive possibilities for readers (cf. McKenna, Conradi, Lawrence, Jang, & Meyer, 2012). As readers are more readily able to comment back to authors, read others' comments, create response texts, and otherwise engage with authors and other audience members interactively, to read means not only to decode, to comprehend, and to interpret texts but also to alter and shape them and to communicate about them (Das, 2011). Scholars investigating how young people make meaning in such interactive contexts have argued that socially networked environments in particular afford new textual possibilities for youths to develop an expanded communicative repertoire (Beach & Doerr-Stevens, 2011; Beach, Hull, & O'Brien, 2011; DePew, 2011; Dowdall, 2009; Hull et al., 2010; Reid, 2011; Richards & Gomez, 2010; Stornaiuolo, Hull, & Sahni, 2011). Although these studies indicate that people can extend their strategic repertoires by virtue of reading and writing in the company of others in networked, interactive contexts, we are still at the beginning of understanding how this interactivity shifts relationships between authors and audiences and demands new interpretive strategies for making meaning with interlocutors from around the

world, who may in fact appear and disappear from our screens unpredictably (Kushner, 2011). Our study addresses questions about the roles of multimodality and interactivity in online reading, which we characterize as a semiotic practice with profound ethical implications for communication and understanding in a radically interconnected world.

A Multimodal, Social Semiotic Approach

We ground this study in a conception of reading as sign making, a semiotic approach to reading that understands it to be a culturally situated and fundamentally dialogic process (Kress, 2003; Smagorinsky, 2001). As a socially situated practice, reading involves the active construction of meaning from culturally shaped materials in a particular social and cultural context. We make meaning of the world around us via a variety of culturally available sign systems and in relation to our personal, social, and cultural histories. Signs, as culturally codified representations, hold different meanings for different readers depending on the cultural resources that they bring to bear on the interpretive situation. Smagorinsky (2011) offered an example of how different readers—a white South Carolina senator, a black South Carolina resident, a resident of a small Indonesian island, and a meteorologist—might differently understand the meaning of the Confederate battle flag, depending on its context and the histories that the individual readers bring to bear. Signs are inherently polysemous and multifunctional in that they can serve as icon, index, or symbol in different contexts or simultaneously (Houser & Kloesel, 1992; The Peirce Edition Project, 1998). Texts, as configurations of signs, are inherently multivoiced (Bakhtin, 1981, 1986) and oriented both to the past (containing echoes of historical discourses) and the future (in conversation with potential audiences). It follows that the readers in our project, who hailed from, in most cases, dramatically different cultural, linguistic, and national backgrounds, would of necessity employ varied reading practices as they engaged in semiotic work online within a range of modes and genres.

Reading, from this point of view, always entails an iterative relationship between the socially situated reader and the culturally and historically embedded texts being read. As the shape of what we read and the contexts in which reading takes place continue to shift, so too must our definition of reading (Kress, 2003). Kress importantly argued that viewing reading as a semiotic design practice is now essential in light of “the increasingly and insistently more multimodal forms of contemporary texts” (p. 140). As young people engage with multimodal texts made easily available by virtue of digital and mobile technologies, they have opportunities to engage in new kinds of meaning-making practices that have implications for online reading. In this study, we found that most young people were eager to communicate multimodally. Focusing on those who seemed most proficient at this process, we investigated their strategic repertoires in navigating the complexities of making meaning in the globally oriented, interactive space of the social network, as well as the ethical stances that they enacted in and through their textual practices.

While reading and writing multimodal texts with global audiences online indeed afford new kinds of opportunities, it is simultaneously the case that authors and audiences also bear responsibility to one another to take into account diverse meaning-making trajectories made possible by interconnected, multimodal contexts. In an ethical media space, authors are compelled to imagine audiences for their texts, ideally creating texts that are respectful, open, and welcoming of a diverse readership. Readers become obligated to listen and respond generously, hospitably, and sensitively. We have been particularly interested in such ethical dimensions of young people's semiotic work, especially in the ways that they develop hospitable dispositions as they communicate across difference. In this chapter, we explore the ways that young people embraced authorial responsibilities in relation to their readers by looking at the degree to which they engaged in hospitable semiotic practices. That is, we wanted to know whether and how young people accepted the ethical obligation to "welcome the stranger" (Silverstone, 2007, p. 136).² Silverstone, whose project was to theorize the desired relationship between media and morality in today's global world, argued that hospitality "begins in the recognition of the other and in the sound of his or her voice" (p. 148). Thus, we examined the extent to which young people recognized others through their semiotic work. How did our participants imagine their readers and hear others' voices? How did young people take into account readers and viewers who would bring different personal and cultural histories to bear?

In thinking about the ways that young people created a hospitable semiotic environment, we found Eco's (1979) notion of textual openness particularly valuable. A central characteristic of media hospitality is "opening [one's] space to the stranger" (Silverstone, 2007, p. 148), and we drew on Eco's work on open texts to theorize what a hospitable opening of the space of the network might look like. Eco defined an open text as one that encourages a multiplicity of readings and offers readers invitations to work together with the author. We might say, then, that an open text embeds strategies of welcome while maintaining sufficient ambiguity to allow readers room to imagine multiple interpretations sensitive to their own meaning-making histories. Eco argued that open texts provide an array of textual cues that guide (and scaffold) the reader (e.g., direct appeals, the presupposition of intertextual competence). Yet, at the same time that open texts offer helpful guidance, they are also flexible in validating a range of interpretive proposals. That is, open texts are sufficiently ambiguous to be generative but not so ambiguous that they can "afford whatever interpretation" (p. 8).

Data Collection and Analysis

Our chapter draws from a three-year design research project linking youths in four countries—India, the United States, South Africa, and Norway—via a private social network called Space2Cre8. Although participants could view the site in English, Hindi, Afrikaans, or Norsk and use those languages to communicate within and across sites, most exchanges occurred in English, which served as the *de facto* lingua franca of the network. Like commercially available social networks,

Space2Cre8 allowed participants to design their online profiles, make friends, chat, blog, share media, and exchange messages. However, our network differed from commercial sites in that it was private and educationally focused, connecting adolescents ages 12–18 from around the world who did not already know each other and who were able to shape the design of the network. It was also unique in that young people met together in small groups off-line with a teacher who guided them in creating digital artifacts to share and in communicating on the network. In these class sessions, some during the school day and some after school, which were called the Kidnet program, young people created a wide range of new media artifacts that they could post online—digital stories, documentaries, dramatizations, photo collages, poems—as well as personalized profile pages by means of which to introduce and represent themselves on the network. We collected a variety of data, both qualitative and quantitative, over three years of the project. This data collection was greatly facilitated by a custom analytics program that we built, which archived all of the content data that the youths generated, their browsing and viewing histories, and statistical information about their online participation patterns. We also collected ethnographic data on the youths' participation in the project, including field notes and audio and video recordings of class sessions, participant interviews, and creative artifacts.

In light of our interest in the ethical dimensions of reading in a global world, we set out in this study to understand how young people create hospitable texts that welcome readers standing at the figurative door. By *hospitable text*, we mean a semiotic ensemble that offers a perspective on the world, self, and/or other that invites or welcomes a reader's or audience's response. We began by examining one of the most ubiquitous features of the network, the personal profile page, as a window into how youths marshaled different semiotic resources in imagining their readers and creating hospitable texts for them. We reasoned that the personal profile page represented the most common entry point into the network for members, who often began their sessions by viewing others' profile pages. On these pages, young people performed elaborate presentations of self, shaped for fellow members of the community, by customizing their pages to the extent possible on the network. Each page allowed users to post media content (e.g., avatar, music, videos, images) as well as written text (e.g., status messages, "About Me" text, wall messages, blogs). In one of the most popular features, users could change the background of their pages by choosing a solid color, a pattern, or an image to display as digital wallpaper. Members could see all the content on one another's pages, and they could comment on media or leave messages publicly on one another's walls. As the hub of interaction online, these designed profile pages functioned as important texts in and of themselves while also operating as entry points into other texts, such as videos and blogs, that were embedded within the pages.

We theorized that hospitable texts in this networked context would be open ones (Eco, 1979) that invited readers in, not just to decode or comprehend but also to respond. Thus, we looked to our data to see how young people constructed open profile pages. We began our analysis by examining the most-viewed profile

pages of the network between September 2009 and March 2011, a time of intense activity on the network. We surmised that these top-viewed profile pages would reveal a rich corpus of hospitable semiotic strategies that users had employed to invite readers to continue viewing and exploring. From the 355 users who signed on to the network during that period, we analyzed the top 10% of the most-viewed profiles (35), believing that this sample size would provide rich evidence of youths' interpretive performances (see Table 1 for a list of these 35 users). Using a constant comparative method (Glaser & Strauss, 1967), we looked

Table 1. Most-Viewed Profile Pages of Youths on Space2Cre8, September 2009–March 2011

Rank	Name	Profile Views	Site
1	Meryem	481	Norway
2	Bhakti	373	India
3	Nelson	332	United States (California)
4	Lillith	328	Norway
5	Usree	319	India
6	Nakida	288	United States (New York)
7	Isabella	276	United States (New York)
8	Susie	274	United States (New York)
9	Nadra	270	Norway
10	Supriya	225	India
11	Paloma	217	United States (New York)
12	Saravati	211	India
13	Emily	187	South Africa
14	Shushma	184	India
15	Sabina	169	India
16	Padma	168	India
17	Julian	167	United States (New York)
18	Kayla	166	South Africa
19	Luisa	161	United States (New York)
20	Selena	159	United States (New York)
21	Rachel	154	South Africa
22	Adira	151	United States (New York)
23	Laurel	145	South Africa
24	Diamond	143	United States (New York)
25	Ronan	142	South Africa
26	Gabriel	142	United States (New York)
27	Olina	142	Norway
28	Monica	138	United States (California)
29	Reggie	137	United States (California)
30	Colette	135	South Africa
31	Annisha	135	United States (California)
32	Aamira	134	Norway
33	Rahim	130	Norway
34	Willie	128	United States (New York)
35	Adele	128	South Africa

Note. All names are pseudonyms.

across the 35 most-viewed profiles, examining how authors implied their readers in composing them (Bakhtin, 1981) and the degree to which the profile pages employed open design elements. For each of these 35 adolescents, we further examined the visible traces that readers left on their pages, such as wall postings and comments, ascertaining not only how actual readers engaged with content on the profile pages but also how the authors in turn responded to their readers.

The 35 young people whose profiles we analyzed participated in six program sites: one in Lucknow, India; one in Oslo, Norway; one in the Western Cape of South Africa; and three in the United States—two in New York City and one in Oakland, California. At all the sites, this project represented a rare opportunity for the teens to access digital technologies and practices not generally available to them. In India, for example, our participants were a group of Hindi-speaking girls who worked to support their families in the mornings, attended school in the afternoons, and had never before used social media (for more information about this site, see Hull et al., 2010). In South Africa, the participants were Afrikaans-speaking eighth graders in a small farming village in the Western Cape who had never used computers prior to the project and did not know anyone, at the start of our study, who used e-mail. In Norway, the group of eighth-grade students, many of whom were children of immigrant parents living in Norway and speaking English as a third or fourth language, were familiar with computers but not necessarily with communicating online or creating media projects to share. The California participants were seventh- and eighth-grade students, primarily of Latino and African American heritage, who generally had access to computers only in school and were not experienced in creating media. In the two New York sites, the participants were adolescents in grades 9–12, many of them children of immigrant parents, who were familiar with computers and social media but often did not have access at home. All of these young people struggled with challenges in coming of age in a rapidly changing world, but they experienced markedly different lifeworlds and everyday realities, which they discovered as they communicated over time on the Space2Cre8 network.

To help us trace in more detail how students engaged with others on and off the network, we turned to an in-depth analysis of the students who had the top three most-viewed profiles: Nelson from the United States, Bhakti from India, and Meryem from Norway.³ In addition to having the most-viewed profiles, these three participants were also the most prolific users of the site, with the greatest number of friends, activities, and postings (Stornaiuolo, Frankel, & Hull, 2011). To understand how they both imagined and interacted with others on- and off-line, we analyzed their various creative artifacts, composed collaboratively or individually; their interactional patterns across the network, including participation in other collaborative spaces and communication with others via both public and private channels; and their interviews about their creative work and their participation in the Space2Cre8 community, including their design decisions in creating their pages. We used the qualitative analysis software Atlas TI during this case study analysis (Yin, 2003) as we inductively developed codes that helped

us trace participation across spaces and texts over time (Bogdan & Biklen, 2007). This in-depth analysis of the three adolescents' interactions on the network over time enabled us to generate new insights about the strategies that the 35 youths used in composing open texts for imagined audiences.

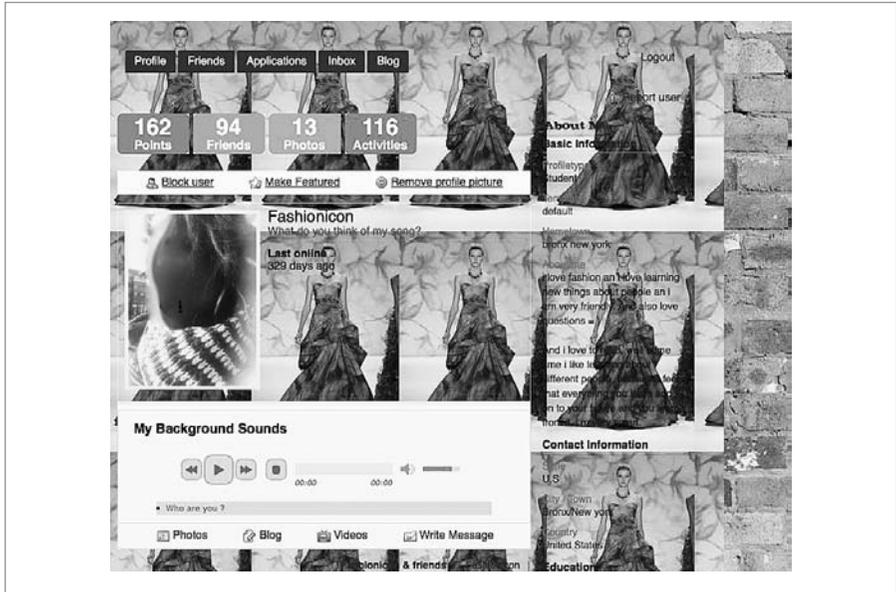
These questions guided the study: (1) In what ways did youths mobilize semiotic resources to design their profile pages for local and global communities? (2) How did these young people display hospitable orientations toward their projected readers through their semiotic practices over time? and (3) How did youths enact readings of one another through various textual artifacts? We address these questions in the subsequent sections, first by exploring the central strategies that the youths used in creating open texts, and then turning to our three case study students, Nelson, Bhakti, and Meryem, to illustrate the different kinds of roles that young people took up as authors and audiences and the strategic repertoires that they developed in doing so.

Creating Open Texts: Audience-Sensitive Strategies

We found that all 35 top-viewed profile pages were highly designed, with youthful composers spending considerable effort to craft texts that were sensitive to and mindful of audiences from diverse linguistic and cultural backgrounds. For example, some adolescents added contextual information in their wall postings (e.g., explaining that Norway was in Europe), and others blended emoticons and other images with written text to amplify their message (e.g., "HELLO friends!!!!☺"). In characterizing the ways that these texts welcomed diverse audiences, we classified the features that indexed their openness. Following Eco (1979), we identified open texts as those that invited audiences to coordinate with the text in particular ways but that, at the same time, were open to multiple interpretations. Open texts thus offered guidance for readers, providing textual cues and invitations for audiences to read the authors as friendly interlocutors open to further exchange. Yet, open texts also afforded audiences flexible reading paths (Kress, 2003), with multiple ways to engage with a text. We turn to an example of one open text to illustrate how such profile pages provided guidance while also offering flexible reading paths for readers. Nakida, a 17-year-old from New York, took advantage of all available means to customize her profile page, creating an open text by virtue of her choices (see Figure 1).

The social network offered different ways of designing spaces, and the youths creatively took up those affordances (Gibson, 1986; Richards & Gomez, 2010). Because there were three primary options for customizing pages within the template of the social network, we attended closely to the ways that participants changed their profile pages, using these three options over time. First, users could add written text in predetermined fields, such as a statement about themselves under the heading "About Me," a short status message about themselves that appeared under their screen name, and wall postings and comments that appeared near the bottom of the page. On Nakida's profile page, for example, under her screen name of Fashionicon, she posted a status message that directly addressed

Figure 1. Partial Screenshot of Nakida’s^a Profile Page on the Space2cre8 Network



^aPseudonym of a 17-year-old girl from New York.

her readers: “What do you think of my song?” She also offered information about herself in the right column, listing her hometown as “bronx new york” and writing about herself, in part: “i love fashion an i love learning new things about people an i am very friendly. And also love questions =).”⁴ At the bottom of the page (not visible in Figure 1), she posted a number of messages on her public wall. By taking advantage of the opportunity to add written text in all of the possible predetermined areas, Nakida presented herself as a welcoming interlocutor—providing information that would help others find common ground with her, characterizing herself as a friendly person who welcomed questions, and inviting others to pursue a conversation with her.

The second way that participants could customize their profiles was via image and color in three areas of the page: an avatar image, the background, and the font color. On Nakida’s page, for example, she added a close-up picture of herself as her avatar image, editing it to add a white border that coordinated with the white stripe in her scarf. She wallpapered the page with an image of a fashion model on a runway, repeating the image in a checkerboard pattern across the entire page. To contrast with the reds and pinks in the background image, she chose a bold, navy blue font for the text. The final way that users could customize their profile pages was by embedding other texts within the page. Students could post four kinds of embedded texts: music, blogs, videos, and photos. For example, Nakida posted a song to play as background music so that anytime someone came

to her page, the song she called “Who are you?” played (her status message referred to this song and invited others to comment on it). Students could also post a blog entry (which could include customized written text, video, emoticons, or photos) that would be previewed on their pages along with a link to the whole entry. Similarly, students could post videos and images (uploading their own or ones from a video or image-sharing site) that would appear as a clickable thumbnail image near the middle of their profile pages. Nakida posted all four kinds of embedded texts on her page.

In customizing their pages—via predetermined text fields, multimodal design elements, and embedded mixed media—the young people offered readers guidance in interpreting their texts. For example, Nakida invited readers to comment on her choice of song by asking audiences to listen to it, and she welcomed readers to ask her questions about her interests, especially fashion. At the same time, these multimodal textual designs offered readers a flexible means of navigating through the texts. For example, Nakida’s readers could concentrate on getting to know her through her avatar or background images, or they could choose to read her wall comments or listen to her music—all possible entry points for readers. In these ways, the students customized their profile pages for audiences, creating hospitable texts that welcomed readers into the cross-cultural meaning-making enterprise with them. Examining the central ways that authors created these open texts, we created a taxonomy of textual strategies (see Table 2) that we organized in terms of the four primary approaches that the youths employed: designfulness (cf. Kress, 2003; The New London Group, 1996), overture, reciprocity, and resonance (cf. Du Bois, 2007).

All 35 young people whose profile pages we examined employed at least one of these four approaches in designing open texts, and the majority of them mixed several approaches to demonstrate a wide variety of audience-sensitive strategies. The most widely used approach was designfulness, as young people altered, appropriated, and hybridized multimodal content to communicate to their audiences that they were welcoming and interesting interlocutors. For example, Nakida chose an image of herself to share with her readers, a close-up of her face framed by an added border, that she coordinated with a navy blue font and an appropriated image of a fashion model. While these strategic choices were primarily designful, she also engaged in the second most popular approach of making overtures to her audiences. Her choice of avatar photo was also a way of disclosing information about herself to others, and she invited others to interact with her by soliciting comments on her posted song. Even the title that she added to that song was an overture, a question about her audience’s identity. Many of the young people with the most-viewed profiles engaged in a similar kind of mixing of approaches, although when we traced the authors’ design decisions over time, we found that the participants favored one approach more heavily than others. For example, while Nakida spent time designing her page for aesthetic appeal, she often made those changes to reach out to others. Her preferred means of creating

Table 2. Strategies for Creating Open Texts

General Approach	Description of Approach	Textual Strategies
Designfulness	Authors who took a designful approach were those who artfully and carefully crafted texts across multiple modes. Authors employing designful strategies made an effort to compose texts via multiple modes in order to create a welcoming environment for audiences.	<ul style="list-style-type: none"> • Appropriation: The author appropriated material for new purposes. • Alteration: The author edited texts to visibly alter color, perspective, line, shape, texture, form, value, or space. • Hybridization: The author edited two or more elements together to form a new design. • Synesthesia: The author layered multiple modes together to form a meaningful whole greater than the sum of the individual parts. • Symbolism: The author used something to stand for something else.
Overture	Authors who took an overture approach invited others to participate with them in the interpretive process either implicitly or explicitly.	<ul style="list-style-type: none"> • Direct address (e.g., “You, you all”) • Greetings (e.g., “Hello!”) • Inclusive language (e.g., <i>we, our, let’s</i>) • Gambits (e.g., “I like your page!”) • Questions (e.g., “Do you like school?”) • Invitations (e.g., “Come check out my page”) • Self-disclosure (e.g., “I am a foster child”) • Offering information (e.g., “I have two sisters”) • Referencing shared information (e.g., “all Bieber lovers”) • Boundary marking (e.g., “Only cool people should join”) <p style="text-align: right;"><i>(continued)</i></p>

hospitable texts was the overture approach—regularly changing her status messages to invite others to talk to her and embedding media that reached out.

Like Nakida, we found that the 35 authors whose pages we examined used these first two approaches the most often in creating open texts. Many students also used a number of reciprocal strategies when interacting with others: answering questions, elaborating responses, and offering extensions, connections, and repairs to keep conversations moving and maintain intersubjectivity. However, these reciprocity strategies were not as widely used as strategies of designfulness and overture, and only a handful of students took a reciprocity approach as their central one. It is plausible that students engaged in fewer responsive strategies for a number of reasons, the most salient being that it was difficult work to sustain a conversation with unknown others across time zones, languages, and cultural and ideological

Table 2. Strategies for Creating Open Texts (Continued)

General Approach	Description of Approach	Textual Strategies
Reciprocity	<p>Authors who took a reciprocal approach used responsive strategies to reciprocate a conversational move and encourage further conversation or interaction.</p>	<ul style="list-style-type: none"> • Assumption of intertextual competence: The author referenced shared text or context (e.g., posting a picture that the author assumed an interlocutor would recognize). • Prediction: The author predicted what others knew (e.g., assuming an interlocutor did not know that Norway was in Europe). • Answer: The author answered a question, often part of an adjacency pair (e.g., replying yes when asked if he or she likes school). • Elaboration: The author offered additional information when asked a question (e.g., replying “I like my teachers” when asked if he or she likes school). • Extension: The author used a variety of back-channel or phatic responses to continue an exchange (e.g., “uh huh,” “☺,” or “lol”). • Repair: The author repaired a potential breakdown (e.g., saying, “Sorry if I offended u!”; correcting an error: “*Norway, not No way”). • Connection: The author synthesized information to talk about a similarity or difference (e.g., “India has a high level of poverty similar to parts of the US”).
Resonance	<p>Authors who used a resonance approach echoed other authors’ design choices, language, or ideas. Often achieved through parallelism in conversation, resonance builds affinity between interlocutors by highlighting connections.</p>	<ul style="list-style-type: none"> • Syntactic parallelism: The author repeated part of another author’s syntax during an exchange (e.g., when one partner shifted in chat from writing “to you” to echoing the partner’s use of “2 u”). • Semantic parallelism: The author repeated key phrases or ideas during an exchange (e.g., repetition of the term <i>random</i> in messages). • Symbolic resonance: The author echoed others’ uses of symbols (e.g., several girls took photographs in which they used their hands to frame a photo of something, e.g., the sun, a flower, a person). • Iconic resonance: The author echoed others’ uses of iconic images (e.g., an author posted a picture of his home in response to another student’s posting of a picture of her home).

differences. None of our 35 young people took a resonance approach as their primary approach for engaging with others, although about half of the students did engage in resonance strategies, often to powerful effect. For example, we noted that several girls chose a series of images that echoed one another; that is, in each photo, the photographer had framed the subject of the photo with her hands. In one such image, a female student in India posted an avatar photo of herself framed by the photographer's cupped hand, which echoed the avatar photo of a young woman in Norway who posted an image of the sun framed by the photographer's index finger and thumb. Other kinds of parallelism, such as the echoing of vocabulary or syntax of an interlocutor, were prevalent but not used as often as other strategies.

During our case study analysis of the students with the top three most-viewed profile pages, we found that each of the three used the full strategic repertoire over time. In the subsequent sections, we describe how each of these students used a wide repertoire of audience-sensitive strategies in ways very different from one another. We demonstrate through our analysis how highly strategic these three young people were in designing open texts and presenting themselves as welcoming and hospitable authors and potential interlocutors and the different approaches they took in doing so.

A Designfulness Approach: Taking Advantage of Multimodal Resources

To explore the ways in which youths strategically mobilized semiotic resources on the social network, we first turn to Nelson, an energetic and thoughtful eighth grader, as the Space2Cre8 user who capitalized on the varied multimodal resources of the network most vividly and frequently. An articulate 12-year-old boy, Nelson was young for his eighth-grade class but a popular figure with kids of all ages, on and off the network. Regularly sporting a wide grin and a sharp wit, Nelson often bounded into the computer lab after school, dropping his backpack on the ground and dramatically announcing, "I'm here!" He had grown up his whole life in West Oakland, an urban area in the East Bay of San Francisco, as an only child who was part of an extended African American family living all around the neighborhood. On Space2Cre8, Nelson was one of the most prolific and popular users, with hundreds of friends and numerous postings across the network. In an early blog titled "My Cool Life," he described himself:

My life is interesting. I am 12 years old and in the 8th Grade. I like to play video games and I like to go out doors. Once, I hiked all day on the Castro Valley Mountains. I like to play adventurous, shooting, and puzzling games. I like to play football, basketball, and soccer. I am really good at basketball. I was on a team last year. (blog, 9/18/09)

This blog was posted on his profile page along with numerous other artifacts that he layered there carefully. For Nelson, the profile page was his communicative window into the networked space, and he spent a considerable amount of time designing it.

and he, like many others on the site, preferred using his own photo to represent himself online. He expressed this opinion in an exchange of private messages with Colette in South Africa, who had used a photo of a popular singer as her avatar:

Colette: hey hey i really like you and would like to be your friend. can you pretty please tell me your real name!!!

Nelson: [Nelson], wat is yours???? Show a picture of yourself!!

Colette: mine is [Colette]...Don't worry you'll soon see the real me!

In this message, he exhorted Colette to show herself via a personal photo, and reciprocally, he regularly pointed people to his profile page to see pictures of himself. Interestingly, in this case, Nelson's preference for personal profile pictures seems to have been activated through the coconstruction of resonance across conversational turns. Colette opened with a bid for authenticity ("tell me your real name"), to which Nelson first affirmatively responded and then made a similar authenticity bid ("show a picture of yourself"). Here in miniature, then, via a brief sequence of turns, Nelson and Colette began to stipulate the ethical conditions and commitments that would underpin their textual practices and friendship.

By coordinating the texts, images, and colors on his page to send a greeting to people in the space of the network, Nelson designed his profile page as an open text that invited others to make meaning with him. Through its carefully choreographed design, his profile page as a whole created a sense of openness that invited readers to make meaning across the images and texts. Whether others responded to the use of his own photo, his greeting to the world, or his space background—or ideally, all three working in concert—his audience was invited to interact with someone who represented himself as a friendly and welcoming interlocutor across different modalities. This strategy was very useful for communicating with others who spoke different languages, and Nelson was mindful of building in multiple ways for his friends who spoke English as a second, third, or fourth language to understand him.

Nelson used this strategy of synesthetic design in almost all of his interactions on the network, not just his profile page. That is, he regularly used multiple modes to invite others to read his work and to interact with him. Even in primarily textual media like chat or private messages, Nelson incorporated emoticons or emotive punctuation to amplify or provide nuance for his message. In his status, for example, he added three exclamation marks to emphasize his greeting, and in his chat with Colette, he used repeated question and exclamation marks to both mirror her own textual enthusiasm and add affect to his messages. He also regularly used emoticons, which the site converted to images in the chat window. Nelson knew how to make all kinds of emoticons appear in chats, and people on- and off-line regularly asked him what to type to generate the smiley face with sunglasses as well as other kinds of emoticons. Nelson's chat with 14-year-old Olina in Norway was punctuated with many such emoticons from both participants, and the following excerpt illustrates how Nelson used them not just to amplify his message but also to complicate it:

Nelson: r u like a dude, who is just posing as a 14 year old girl?

Olina: No 🙄

Olina: I'm a girl

Olina: why do u think that?

Nelson: i dont know?

Nelson: i saw it happen on this TV show

Olina: Ok... But I'm a girl. read my profile...

Olina: don't u belive me?

Nelson: yea

Nelson: if i c your picture, i'll trust even more 😁

When he asked to see Olina's picture, he included an emoticon of a wide grin to mitigate the sting of asking to see a picture because he did not fully trust her word that she was a girl. He regularly used emoticons and punctuation to similarly extend his meaning, and every message and chat that he engaged in (thousands of lines of text) were filled with these multimodal layerings. As these young communicators illustrate in brief, and as we discuss in more detail later, a part of an ethics of communication is the acceptance of risk and the construction of trust (cf. Levinas, 1969).

Nelson was very serious about the idea of design and took the idea of design research to heart, regularly offering suggestions about how the network should be changed (he was an early advocate of the chat and wallpaper features). Many of the 11 groups that he created had a community orientation designed to bring a variety of opinions together in one space, and he regularly solicited peers' engagement with these groups by sending messages that requested participation. He created one group dedicated to issues of design, "Space2cre8 Students," which he described in the group description field this way: "Suggestions on what you would like the website to improve, have more of, or take off. Make suggestions in this group. All space2cre8 members can join to give your suggestions." This message was accompanied by an avatar of a finger pointing at the reader (see Figure 3).

Figure 3. Avatar for Nelson's^a Online Group "Space2cre8 Students" on the Space2cre8 Network



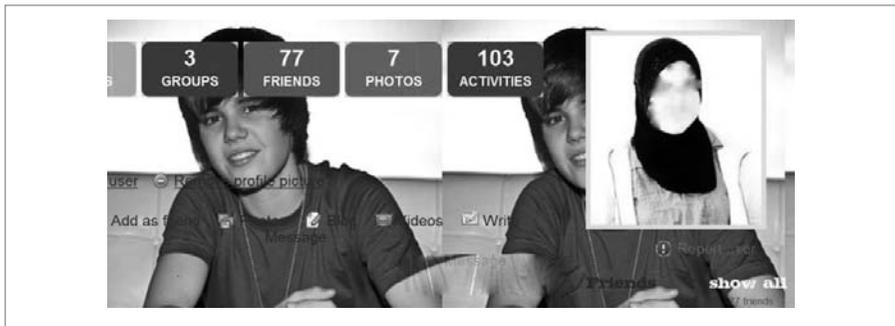
^aPseudonym of a 12-year-old boy from California.

Like the direct address in the description, calling on readers to participate and including “all space2cre8 members” in his imperative to “make suggestions,” this image amplifies that directive by addressing indexically the person viewing the page. For some viewers, the image would have additional indexical resonance, calling up via synecdoche the U.S. military’s emblem for recruitment. Just as Uncle Sam demanded soldiers, Nelson wanted participants. In this way, he synesthetically designed a group space, as he did his profile page and messages, to elicit as much participation as possible in the redesign of the network space. He was strategic in how he used different available modalities to craft a message that could be heard and understood by others, including those for whom English was an emergent language.

While Nelson was highly strategic in how he approached meaning making across the network designfully, all of the students in our sample used the designfulness approach to differing degrees to communicate multimodally via strategies of appropriation, alteration, hybridization, synesthesia, and symbolism (see Table 2). The student who used this strategy most frequently in authoring her profile page was Nadra, a 13-year-old girl from Norway, who customized her page design 46 times. Nadra focused particularly on coordinating different modalities and articulating relations between them, and the comments that readers left on her page indicated that they appreciated her efforts. In an early iteration of her page, Nadra signaled her love of Justin Bieber, the Canadian pop singer, by using his image as her wallpaper, which she coordinated with a photo of herself smiling directly at the camera dressed in a traditional headscarf (see Figure 4). Additionally, she included information about herself in the “About Me” section of her page, which read,

I am a girl who is 13 years old. my name is [Nadra] but it pronounced [Nadru]. I am from Kurdistan but live in Norway. I speak kurdish at home and norwegian with my friends and teacher. I Love JUSTIN BIEBER.

Figure 4. Partial Screenshot of Nadra’s “Earlier Profile Page on the Space2cre8 Network



“Pseudonym of a 13-year-old girl from Norway.

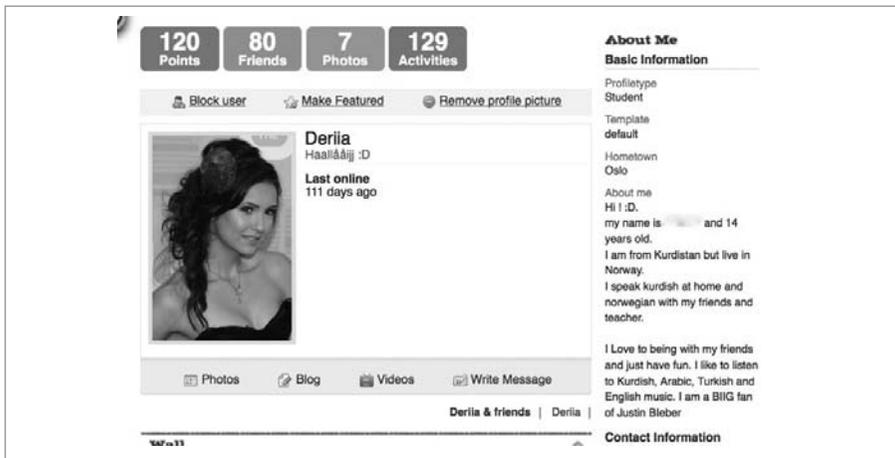
This profile design can be considered open in nature because it revealed quite a lot about Nadra via different modalities. Through the juxtaposition of the background and profile images with her “About Me” statement, readers could surmise that she is a fan of Justin Bieber, of Kurdish nationality, a trilingual speaker, and an immigrant to Norway. These revelations invited readers to engage with her around any of these potential points of connection, and readers responded with compliments like “Nice pic!” or “*Fint bakgrunnsbilde!*” (Nice background image!).

One of the remarkable characteristics of Nadra’s participation in the network was the sheer number of times that she shifted her semiotic strategy. For example, her later profile page was much less busy than her initial one (Figure 4), with a crisp white background and bright blue lettering that matched the flower in the hair of her avatar, American actress Nina Dobrev (see Figure 5). This version of her page, as a kind of blank canvas (distinct from the default blank canvas, which was beige parchment), highlighted the written text and avatar photo. Her “About Me” statement shifted as well, as she broadened her interests to include international music (while remaining a “BIIG” Justin Bieber fan):

Hi !:D my name is [Nadra] and 14 years old. I am from Kurdistan but live in Norway. I speak kurdish at home and norwegian with my friends and teacher. Love to being with my friends and just have fun. I like to listen to Kurdish, Arabic, Turkish and English music. I am a BIIG fan of Justin Bleber.

In this iteration of her profile page, Nadra still attended to the synesthetic aspects of the design (e.g., matching the colors of the flower and font) and continued to invite readers to connect with her through popular culture, music, language, or

Figure 5. Partial Screenshot of Nadra’s “Later Profile Page on the Space2cre8 Network



“Pseudonym of a 13-year-old girl from Norway.

national/ethnic background. However, she did not reveal herself quite as directly as before, shifting from using her own picture as her avatar to appropriating the image of a popular American actress. This new strategy led one girl in India to inquire, “hello why you use this photo?” For the young woman in India, Nadra’s choice of avatar was apparently not intertextually meaningful, and thus she questioned Nadra’s strategy in choosing it. Designing a page that allows for multiple meaning-making paths can signal an admirable and intrepid openness, we suggest, a willingness to welcome multiple interpretations and responses to textual overtures. Yet, it can also be risky, making one vulnerable to questions around representational choices, such as using a popular American actress’s photo instead of a self-portrait.

Young people regularly took advantage of the multimodal capacities of the network to take a designful approach to creating open texts, especially in juxtaposing and layering texts to create meaning synesthetically. Nelson and Nadra, like other participants whose texts we examined, were strategic designers who exploited the communicative potential of multimodal composing to create open texts. These texts invited others into the meaning-making process by representing the author’s stance as welcoming across all the modalities available to them (e.g., Nelson’s “hello world” was written text that he coupled with the space/world theme of his background image). Yet, these texts were also open in the sense that the relationships among the modes were sufficiently ambiguous that others could construct different meanings than the author might have intended but still understand enough to communicate. That is, whether someone could read Nadra’s English text about her interests or recognize Justin Bieber as a singer, that participant could still understand that Nadra was making an effort to communicate her interests to her viewers/readers. As designers, our young authors strategically coordinated various available semiotic resources to create a hospitable semiotic environment.

An Overture Approach: Creating a Welcoming Persona

All of the authors whose pages we examined also engaged to some degree in what we have called an overture approach to creating open texts. In this approach, young people strategically created openings for future communication with their audiences by threading many kinds of overtures throughout their networked communication. In this section, we explore how young people displayed orientations toward their projected readers through the ways they reached out to others over time. Many young people made direct and explicit overtures to their audiences, such as addressing readers through exhortation (e.g., “be my friend!”), greetings (e.g., “Hi everybody!”), or questions (e.g., “How are you today?”). Conversely, all of the young people in our study exercised a wide repertoire of subtle overtures to others as well, such as seeking similar interests with others, posting personal photos and videos, or using jointly oriented language (e.g., inclusive personal pronouns). Although all the students engaged in these kinds of outreach strategies at some point in their participation online, some of them seemed to prefer this

approach over the others and spent considerable effort crafting messages of welcome in almost every move. One of the students with a top-viewed profile who engaged in a systematic and strategic campaign of welcome was Bhakti, a 17-year-old girl from India who displayed her orientation to readers as potential new friends and as a hospitable audience for her poems and other compositions. She might best be characterized as a Space2Cre8 ambassador, someone who embraced new members of the community through a vast repertoire of welcoming strategies in every online interaction. Again, we view such an orientation as a dimension of hospitality, one in which a host makes a welcoming overture and renders herself vulnerable via a textual offering to an unknown guest, who may embrace, misunderstand, ignore, or choose to reject that offering.

A central figure on the social network, Bhakti used many kinds of outreach tactics to connect with others and to portray herself as friend-worthy. Whereas in other writings (e.g., Hull et al., 2010), we analyzed an early digital story that Bhakti created and its impact as it circulated through the network, here we focus on her role in the online community. A slender teenager who seemed stately at a distance, Bhakti was always ready with her wide smile and a warm arm casually tossed across her friends' shoulders. Of all the girls in her program, Bhakti usually had her hand raised during class time, trying to answer a question or volunteering for a role in the activity at hand. She loved learning about computers, quickly becoming among the most expert in the room and mentoring her friends as they learned to navigate online. As the person on the site with the most friends (161), Bhakti initiated most of those friendships (141) by sending requests to people she had not yet met. Similarly, Bhakti reached out to others via private messages and chats, initiating 35 of her ongoing 55 message conversations and 82 of her 101 chats. She stated that her favorite part of going on the Space2Cre8 network was "making friends and sharing my life" (interview, 7/12/10), and clearly she used many of the outreach functions of the network to connect with others. As someone who had had to battle many obstacles to pursue her dream of an education and financial independence, Bhakti compared herself to the image of the sun that she posted on her profile page, spreading hope and warmth across the Space2Cre8 community (interview, 7/12/10).

One of the ways that Bhakti positioned herself in the community was as an open person, someone who shared personal information freely. This openness meant sharing some of her struggles, especially her efforts to make enough money to support her siblings after her mother's death while still staying in school. In frequent postings to her profile, she shared information about herself and her community through three videos, 35 photos, 12 blog posts, and 140 status and wall posts. Additionally, she provided background information about her love of school and her difficulties at home in her "About Me" statement:

hey i am [Bhakti] from India. i like to make more friends. I am student of class 10th...I study in [Prayas] school. In school we have freedom to express our selves. Our School begins at 2:30 pm. Our Teachers Love us and they are Like OUR Friends. We get more love in school compared to our homes. We forget our troubles when we

are at school. We cannot share anything with anyone at home. We don't get to play, dance, sing and study at HOME. We can participate in many activities at school, so our school life becomes very interesting. There is no freedom at home. We are not allowed to visit our friends. SCHOOL HAS Taught US to be independent. [Prayas] has given us dreams and courage to fulfill our dreams.

Bhakti assumed that her readers would be interested in the details of her everyday life, such as the time her school day began and her grade level, as well as her feelings about these things. By sharing her struggles and her hopes and dreams, Bhakti displayed an orientation toward others as potentially caring friends, ones worthy of her confidence and trust. In all of her postings online, she adopted this stance toward others, frequently asking others to be friends and sharing sometimes intimate parts of her life in the hopes that her interlocutors would do the same.

In addition to representing herself as an open and trustworthy person through her personal sharing, Bhakti signaled friendly intent by incorporating messages of welcome in every posting across the site. She regularly infused her messages with deep care for and awareness of her audience, writing status messages like "I LOVE YOU ALL" and "hi!!!everybody" and posting regular greetings to visitors to her page with wall posts like "hello every one how are you i miss you all." These postings conveyed a sense of openness to others through both her message (e.g., "love," "care") as well as her orthographic choices (e.g., capital letters, multiple exclamation points). Furthermore, she characterized her audience as members of a collective community (e.g., "everybody," "you all"), which positioned them in relationship with her and with one another. She wrote frequent messages like the following, posted on her wall for everyone who came to her page to read:

hello everyone how you all and how is going your kidnet class i miss you all . and what you all are doing at this time ? after 2 month ago what you all do and how you all sped your holidays. m..well i went to my grand mother house and there i was spend my holidays and enjoyed so many thing . and after i came to my house suddenly i join....this is company's name where i work. right now i am doing job so i don't have time to spend to our kidnet class . i miss my all kidnet class. this time i am feeling so bad . but there is problems so i need to do that .because this time i have so many problems at my home reply me soon about your holidays.

Anyone in the community who read this posting could be part of the "you all" she addressed here, as she solicited her readers' advice about her conflict in working instead of attending the Kidnet classes. In addition to addressing readers directly, she inquired about them as well, reciprocally asking them to "reply me soon" about how they spent their holidays. She spoke to her readers as members of a community whom she had missed, inviting them to interact with her in the role of concerned friend. Through her strategic positioning, Bhakti framed herself and her readers as reciprocal members of a supportive community, roles that readers often took up.

Through multimodal and textual means, Bhakti and others who preferred this welcoming approach regularly positioned themselves as thoughtful and hospitable authors concerned about their readers' needs. Moreover, they framed their relationships with their readers as reciprocal, positioning their audiences as participatory. Although not all of the young people in our study were willing to share personal information, some even expressing reservations about talking with others who were essentially strangers, all of the participants authored invitations for their audiences to take up participatory roles, inviting them to comment on media, to talk, to share information, to offer opinions, to be visible to one another.

A Reciprocity Approach: Extending the Conversation

When readers responded to authors, leaving messages, answering questions, and taking up invitations, the authors did not always know what to do next. How does one sustain dialogue with a distant other? What is textual hospitality, beyond the offer of a welcoming text? Participants with experience in other online venues were often practiced at deploying conversational strategies to draw out others, extend their responses, and solicit more interaction. Others were less practiced, answering in yes-or-no form or incorrectly predicting what an audience might understand (e.g., answering "sup" instead of "what's up" in response to a greeting). Regardless of their facility with these strategies, we found that participants persisted in their attempts to connect with peers whom they had never met and whose needs they had to infer. Several students, however, privileged a reciprocity approach, always seeking opportunities to extend conversations with others. We turn to one such student, 14-year-old Meryem from Norway, who had many opportunities for interaction, having the most-viewed profile page in our study (481 views). We found that by deploying a wide number of responsive strategies, Meryem supported her interlocutors and did something that few others did as systematically and comprehensively: She answered everyone. She took her responsibility to her readers seriously and assiduously answered anyone who contacted her. Like Nelson and Bhakti, Meryem created a hospitable semiotic environment and positioned herself favorably in relation to others, but her preferred approach was to employ a repertoire of responsive strategies that facilitated communication.

A social young woman in a Norwegian eighth-grade classroom, Meryem regularly talked to her classmates as she moved from desk to desk during Space2Cre8 activities. In her "About Me" statement online, which she regularly updated with new information, she emphasized her relationship with her friends and also highlighted her status as an immigrant to Norway: "My homecountry is Turkey. There I have a house and my aunts, uncles, grand-parents and my relatives lives there. My interest is to be with friends, shopping and much another things:)." With access to a computer with an Internet connection at home, Meryem was a practiced online communicator when she joined the Space2Cre8 project. She spent a considerable amount of time outside of class on the network and, thus, had the opportunity to chat with youths in other countries regularly at different hours of the day and night. Meryem also put energy into designing her page, coordinating

her carefully posed and edited profile pictures with the background and font colors so they all worked in concert (the pink of the text matching the pink in her blouse, for example). She always used a carefully edited photo of herself each time she updated her profile, often with embellishments such as added text, borders, and soft back lighting. Like Nelson, she regularly asked people for photos of themselves and pointed potential viewers to her own photo as a means to get to know one another.

What most distinguished Meryem's approach from Bhakti's or Nelson's was that all of her efforts to create a hospitable communicative environment seemed designed to facilitate and sustain interchange with others. Meryem's participation on Space2Cre8 was characterized by a pattern of responsivity: She responded to every comment on her page right away, which usually led to further communication through other channels (i.e., chat, private message). Further, she often used humor and repartee to spark new exchanges and create a welcoming environment. In one example, a boy in New York posted on her wall that he wanted "2 instigate a conversation wif u." Whereas other students might have ignored this posting, written in American slang without greeting or context and using complex vocabulary and shorthand spelling conventions, Meryem answered right away: "if you are cute so." She turned the tables on this teenage boy, implying that she would talk to him only if he were cute (echoing the flirtatious undertones in his message). Her two friends later complimented Meryem on this conversational move, reinforcing to others who might be looking on at this public interaction that she was an open, responsive, and ultimately cool person. This in turn created a welcoming and hospitable environment on Meryem's page.

Other participants' postings on Meryem's wall, which were available for all to read, certainly added to the perception that she was a cool girl in the community. A case in point is Q'nisha's posting, the first on Meryem's page. Q'nisha, a 12-year-old girl from Oakland, was funny, bold, and confident, and her posting, using slang like "wats up grll" and praising Meryem's page design, indicated to others that Meryem's page was worth viewing. Plus, in response to Q'nisha's statement that "I think we have to talk with each other," Meryem chose to answer publicly rather than via a private channel (i.e., chat, private message), agreeing that they should talk more and complimenting Q'nisha's page design as well. Nearly eight months later, miss d (username) from South Africa posted a reply on this comment thread, writing that Meryem struck her as a "nice girl" who was worthy of friendship. An author and designer who took the time to craft her online presence as well as to answer the comments of others, Meryem came across as a desirable friend.

Not only was Meryem responsive to all who contacted her, but she was also quite adept at using strategies to extend the conversation and at offering her interlocutors support. For example, when Kayla, a 13-year-old girl in South Africa commented on Meryem's wall, "hi my name is lovergirl [her username] i live in Shouth Africa," Meryem responded, "Hi, my name is [meryem] and i live in norwy who is in europe." Instead of responding like Kayla, with a fictional username,

Meryem offered her real name as well as reciprocal information about her location. Yet, rather than simply telling Kayla that she lived in Norway, Meryem offered additional information to orient Kayla, assuming that Kayla would know where Europe is, if not Norway. This kind of extension strategy provided scaffolding to global friends who may not have been as practiced at building relationships online, where one must reveal certain information to gain trust as well as infer what audiences might or might not know.

Meryem positioned herself in the role of supportive audience in many of her online interactions. That is, she transitioned from being a hospitable author/designer to a hospitable reader in her online interactions, and she did so fluidly. We see her model this ethical communicative stance in most of her conversations, such as the following chat with Jorell, a 13-year-old boy from Oakland:

Jorell: hey hey hey it is your friend here

Meryem: Hii, where do you live?

Meryem: Hii 🤔 What is you'r real name?

Jorell: who wat when wher why

Jorell: united staes

Jorell: kevin

Meryem: Ok, what do you mean with (who what when where why) ???

Jorell: it is just a question

Meryem: Oooh 😊

Jorell: lmao

Jorell: lmao

Jorell: lmao

Jorell: lmbo

Meryem: lmao ? lmbo ?

Jorell: it is saying laugh my but off

Meryem: Ok

Jorell: thanks for understanding

Jorell: i have 2 names but people call me [jorell] so just call me dat

Meryem: Ok, my name is [Meryem] in real:)

Jorell: sweet

Meryem: Ok

Jorell: thanks for understanding

Meryem: Thanx

Meryem: Thanx

Jorell: hey u r pretty

Meryem: Thank you, you too <3

Jorell began the interchange with a friendly gesture, positioning himself as Meryem's friend, although they had not communicated directly before. Meryem responded in kind, asking two questions that required him to share personal information. However, Jorell was cautious about what he revealed online, and in his next conversational turn, he was deliberately vague and a little critical. He provided the information that he lived in the United States and that his name was Kevin. His residential status was accurate, if quite general, but the second piece of information was false: Kevin was the name of another boy in his school. Jorell also retorted, "who wat when wher why," which implied that Meryem was asking too many questions too quickly. Although she was practiced with certain online exchanges in English, she did not understand Jorell's implication and so asked him to explain what he meant. When he told her the phrase was just meant as a question, she playfully stuck her tongue out at him via emoticon. He responded in kind, assuming that she would understand his acronym *lmao*, which glosses as laughing my ass off. However, after posting this without a response three times, Jorell changed the acronym to *lmbo*, the less offensive version of his earlier post, which he also needed to explain when she did not understand (laughing my butt off). He apologized when she did not answer in a reciprocal manner ("thanks for understanding"), relieved that she was not offended by his language. At this point in the conversation, Jorell revealed his real name to her, claiming that he had two names to cover up his lie and again apologizing for misleading her. Meryem, in persisting in conversing despite potential misunderstandings, modeled for Jorell how to playfully but respectfully engage in a conversational exchange. She offered personal information and encouraged him to do so, and she acknowledged each of his responses with a continuer ("Ok," "Oooh") or the provision of more information (questions, her name, compliments).

Through a range of responsive strategies, then, young people regularly found ways to elaborate, extend, and otherwise scaffold one another in conversation. More than just imagining audiences, our young people participated with their audiences across the network, which we view as a reading practice that required imagining what these unseen people might want or need to know to continue the conversation. This hospitable effort was challenging for participants, who sometimes, like Jorell, made communicative efforts that did not go so smoothly. However, young people often persisted through these difficulties, and efforts like Meryem's to create open texts that invited others to switch roles as both authors and audiences helped young people develop new communicative competencies. Even when they did not participate directly in such exchanges, the textual traces left by these public interactions proved important in inviting readers like miss d into the communicative process.

Communicating in a Global World

Social media and mobile and digital technologies now afford the rapid global circulation of texts and increasingly compel communication and literacy practices that are interculturally alert. They also set new horizons for those educators and

researchers who would consequently redraw the boundaries of reading, writing, and literacy pedagogy. Our focus in this chapter has been the semiotics of reading online texts created for a global audience. We asked what it means to read in a world in which audiences have exploded, space and time are ever more compressed, and audiences and authors can interact in new ways. As the young people in our project imagined how to communicate with readers different from themselves culturally, linguistically, ideologically, and geographically, we examined one kind of reading practice in particular: reading one's audience. Especially in this international context, the presence and significance of imagined readers appeared magnified, constantly prompting participants to consider, how might I read, how might I be read, and how might I do so most generatively when to read requires meaning making across varied semiotic and cultural contexts? As readers meet in global, transnational spaces like social networks, they will surely experience a range of challenges around differences in their personal histories, cultural backgrounds, and communicative preferences and norms. While there are various ways to conceptualize and address such challenges, our approach has been to take an ethical turn, examining the ways that our youthful authors assumed responsibilities toward readers and stipulated with them joint commitments of hospitality and reciprocity. As young people predicted and inferred what their projected readers might need and desire, they stretched their imaginations to take into account their peers' experiences and knowledge, employing interpretive strategies that we argue are increasingly critical for communicating in a global world.

These strategic efforts to take into account potential and actual audiences were at heart hospitable gestures. Our adolescent participants welcomed virtual strangers into their online spaces through various semiotic practices. In this chapter, we operationalized the construct of hospitality in terms of openness, finding that youths who designed the most sought-after pages on the network engaged in these hospitable practices by creating open texts that invited readers to engage with authors and construct varied reading paths. The generative polysemy and indeterminacy of their multimodal compositions encouraged readers to construct multiple meanings in service of making friends and influencing people and featured overtures for engagement to which peer audiences regularly and positively responded. In characterizing how our participants took their global audiences into account by creating these open texts, we created a framework of four approaches that the young people in our study employed: designfulness, overture, reciprocity, and resonance. Although the youths used a wide repertoire of textual strategies across all four approaches, we found that they generally had a preferred method for presenting themselves as welcoming and hospitable interlocutors, and our three case study students, Nelson, Bhakti, and Meryem, were particularly adept at deploying a diverse strategic repertoire in different ways via these approaches.

One finding that is important to consider as we turn these digital technologies toward educational purposes is the sociocultural, sociocognitive challenge of

this literate enterprise. Although teachers encouraged and supported the youths to develop hospitable stances toward others through the offline programs (cf. Stornaiuolo, 2012), this process was often bumpy and replete with communicative missteps and misunderstandings. Members of the network struggled to communicate in a language and register that others would understand, sometimes wrangling over the intended meanings of colloquial terms like *sup* and *lmao*. Moreover, the polysemy of the multimodal artifacts that offered audiences multiple reading paths (Kress, 2003) and opened interactional spaces could sometimes lead to unruly texts, with tensions and communicative breaches that undermined or interrupted an intended narrative. While the youths learned to communicate with others who were very different from themselves, they were simultaneously tasked with juggling the multiple roles required of them. They sometimes fumbled as they shifted between authorial and audience roles, and at other times, they failed to anticipate what their readers might need. It is noteworthy, then, that the young people persisted in their efforts to communicate with one another, compelled by their engagement in what they appeared to experience as a meaningful, creative, and interpersonal endeavor. As Nelson's, Bhakti's, and Meryem's efforts demonstrate, they did so generously, thoughtfully, and artfully as they turned their semiotic practices toward ethical purposes.

The literate challenges with which our youths engaged have taught us not only about their persistence and ingenuity in creating and responding to open texts but also about online literacy practices more generally. These online practices, which increasingly entail composing for and reading of unknown, heterogeneous, and culturally and linguistically diverse interlocutors, foreground and deepen our understanding of the inherent precariousness of communication as an encounter with the other (cf. Levinas, 1969). More than with face-to-face encounters, in which the other is never completely unknown or unidentified, or in print communication, in which the text, the author, and the reader are given a fixity that is significantly destabilized in the more ephemeral realm of digital textual transactions, in online literacy/communicative practices, the risks of misunderstanding and unfulfilled semiotic potential are greater. For this reason, composing and reading online take on a primary ethical meaning.

Our overarching interest in this chapter, as well as in related research on social media (Hull et al., 2010; Stornaiuolo, 2012), has been the exploration of ethical spaces for encounter and communication with others. For this purpose, we have found particularly generative the philosophical construct of hospitality. As Silverstone (2007) argued,

Hospitality, an obligation, principally, rather than a right, is a primary ethic in a cosmopolitan world. It goes to the heart of our relationships with others. Indeed it is constitutive of such relations. The capacity, indeed the expectation, of welcoming the other in one's space, with or without any expectation of reciprocity, is a particular and irreducible component of what it means to be human. (p. 139)

Silverstone was interested especially in the ethical entailments of hospitality in a global and intensely mediatized world, where it “becomes intertwined with the requirement not just to let the other speak but the requirement that the stranger should be heard” (p. 139). Thus, he aptly captured an important dimension of digital readerships that we have hoped to illustrate in this chapter: the requirement, indeed the responsibility, to attempt to imagine, to know, to hear one’s audience, and to compose accordingly. We would add, referencing the exchanges of our youths, that once having read their audience hospitably, authors next must trust their readers to be hospitable themselves. Here, then, is another important ethical dimension concerning the host and guest, self and other, author and reader relationship. In offering a wide and largely unknown audience access to one’s textual creation and thereby to oneself, the composer/designer takes the risk of being misunderstood and/or rejected. We might in fact usefully think of the posting of a textual bid online as an act of trust in an assumed hospitable audience. Our data provide, we believe, striking examples of how young people took risks to create the conditions and then nurture an ethical space for encounter and communication with the other.

The ideal of hospitality—whether this hospitality would be offered by a nation in regard to its borders, an individual in relation to his home, or an author with respect to her text—is shot through with ever present relational tensions and challenges. The ethical nature of these challenges, we suggest, makes the semiotic work of readership complex in ways that are often not acknowledged or are reduced to matters of textual etiquette. Derrida’s (1999, 2001) discussions of the fundamental aporia that rests at the core of hospitality are instructive here. He points out that to be hospitable, it is first necessary to have the power to host. Hospitality is therefore predicated on claims of property ownership, or in our case, textual authorship. To be hospitable, the host must have a measure of control over the guests who are being hosted—or over the boundaries of a nation, or over the meaning/interpretations of the text that is being offered to an audience/readership. Derrida’s analysis offers us a provocative and cautionary perspective, one that acknowledges the complexity, challenge, and contradictions of hospitality but does not assert its impossibility. Authentic hospitality is a radical act imbued with uncertainty and risks. We believe the youths in our study strived to be radically hospitable—that is, hospitable in an unconditional and nonhegemonic way. As they composed and designed texts, they created spaces for encounter and communication. They were open to the possibility that readers would appropriate their texts in unanticipated ways, ways that blur the boundaries between author and audience, and ways that question the asymmetrical distribution of semiotic rights in meaning making between textual host and textual guest, if you will. At the same time, when taking on the role of readers, the youths displayed an orientation toward an ethic of listening and responsiveness—to wit, an ethical commitment to reciprocity. This compelled them to look for and acknowledge the other in the text, proffering a response in which their subjectivity was exposed to and engaged by the other. Such hospitable textual practices, in our estimation, constitute an overlooked but significant ethical dimension of being literate in the 21st century.

QUESTIONS FOR REFLECTION

1. Do students need direct instruction in the hospitable text strategies of designfulness, overture, reciprocity, and resonance to be successful online communicators? Why or why not?
2. How do you think students engaging in global communication can develop ambassadorial skills for interacting with others?
3. What questions might you ask students in a class discussion of authoring and audience in an online environment?
4. What discussions about communication interactions might you have with students who are finding new friends in other countries and cultures?
5. How might reading teachers capitalize on young people's interest in communicating multimodally?

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¹We refer here to interacting with the reader in a literal sense—that is, the actual exchange between author and audience. Such an exchange does not negate the anticipated interaction that the writer had imagined and encoded in the text, but rather builds on it. In fact, in the actual exchange between reader and writer, the reader can variously reject, negotiate, subvert, or ratify the position and interpretive actions that the writer had projected.

²The philosophical construct of hospitality has a long lineage: Kant's (1983) work from the period of 1784–1795, Levinas (1969), Arendt (1998), and Derrida (1999, 2001). Among contemporary theorists, Silverstone (2003, 2007) has used hospitality quite powerfully to frame the moral challenge of living in an age of media saturation and radical connectivity (see also Chouliaraki & Orgad, 2011). In other work (Hull & Stornaiuolo, 2012), we have followed Silverstone in linking hospitality to the related construct of proper distance to theorize the challenges of interacting with mediated others. In that work, as in the present chapter, our interest was in exploring the digital, literate entailments of hospitable dispositions and habits of mind.

³All names of individuals and schools are pseudonyms. In the screenshots reproduced in this chapter, names have been erased as needed to maintain anonymity.

⁴Although teachers discussed with participants how messages might be perceived by others on the network and used the postings as learning moments, the students were free to use any

kind of writing style they chose. Therefore, postings quoted in this article may not follow conventions for standard written English. We thank Gunther Kress for helpful consultations on the nature of reading as semiotic design as well as for the inspiration of his work.

REFERENCES

- Alvermann, D.E., & McLean, C.A. (2007). The nature of literacies. In L.S. Rush, J. Eakle, & A. Berger (Eds.), *Secondary school literacy: What research reveals for classroom practice* (pp. 1–20). Urbana, IL: National Council of Teachers of English.
- Appadurai, A. (1996). *Modernity at large: Cultural dimensions of globalization*. Minneapolis: University of Minnesota Press.
- Arendt, H. (1998). *The human condition* (2nd ed.). Chicago: University of Chicago Press.
- Bakhtin, M.M. (1981). Discourse in the novel. In M. Holquist (Ed.), *The dialogic imagination: Four essays* (C. Emerson & M. Holquist, Trans.; pp. 259–422). Austin: University of Texas Press.
- Bakhtin, M.M. (1986). *Speech genres and other late essays* (C. Emerson & M. Holquist, Eds.; V.W. McGee, Trans.). Austin: University of Texas Press.
- Beach, R., & Doerr-Stevens, C. (2011). Using social networking for online role-plays to develop students' argumentative strategies. *Journal of Educational Computing Research*, 45(2), 165–181.
- Beach, R., Hull, G., & O'Brien, D. (2011). Transforming English language arts in a Web 2.0 world. In D. Lapp & D. Fisher (Eds.), *Handbook of research on teaching the English language arts* (3rd ed., pp. 161–167). New York: Routledge.
- Bearne, E. (2009). Multimodality, literacy and texts: Developing a discourse. *Journal of Early Childhood Literacy*, 9(2), 156–187. doi:10.1177/1468798409105585
- Bezemer, J., & Kress, G. (2008). Writing in multimodal texts: A social semiotic account of designs for learning. *Written Communication*, 25(2), 166–195. doi:10.1177/0741088307313177
- Black, R.W. (2009). Online fan fiction, global identities, and imagination. *Research in the Teaching of English*, 43(4), 397–425.
- Bogdan, R.C., & Biklen, S.K. (2007). *Qualitative research for education: An introduction to theories and methods* (5th ed.). Boston: Pearson Education.
- Brandt, D. (2009). Writing over reading: New directions in mass literacy. In M. Baynham & M. Prinsloo (Eds.), *The future of literacy studies* (pp. 54–74). New York: Palgrave Macmillan.
- Burke, A., & Rowsell, J. (2008). Screen pedagogy: Challenging perceptions of digital reading practice. *Changing English*, 15(4), 445–456. doi:10.1080/13586840802493092
- Castek, J., Leu, D.J., Coiro, J., Gort, M., Henry, L.A., & Lima, C.O. (2008). Developing new literacies among multilingual learners in the elementary grades. In L.L. Parker (Ed.), *Technology-mediated learning environments for young English learners: Connections in and out of school* (pp. 111–153). Mahwah, NJ: Erlbaum.
- Chandler-Olcott, K., & Mahar, D. (2003). "Tech-savviness" meets multiliteracies: Exploring adolescent girls' technology-mediated literacy practices. *Reading Research Quarterly*, 38(3), 356–385. doi:10.1598/RRQ.38.3.3
- Chouliaraki, L., & Orgad, S. (2011). Proper distance: Mediation, ethics, otherness. *International Journal of Cultural Studies*, 14(4), 341–345. doi:10.1177/1367877911403245
- Coiro, J. (2012). Understanding dispositions toward reading on the Internet. *Journal of Adolescent & Adult Literacy*, 55(7), 645–648. doi:10.1002/JAAL.00077
- Coiro, J., & Dobler, E. (2007). Exploring the online reading comprehension strategies used by sixth-grade skilled readers to search for and locate information on the Internet. *Reading Research Quarterly*, 42(2), 214–257. doi:10.1598/RRQ.42.2.2
- Das, R. (2011). Converging perspectives in audience studies and digital literacies: Youthful interpretations of an online genre. *European Journal of Communication*, 26(4), 343–360. doi:10.1177/0267323111423379
- Davis, K., Katz, S., James, C., & Santo, R. (2010). Fostering cross-generational dialogues about the ethics of online life. *The Journal of Media Literacy Education*, 2(2), 124–150.
- DePew, K.E. (2011). Social media at academia's periphery: Studying multilingual writers' Facebook composing strategies. *Reading Matrix*, 11(1), 54–75.
- Derrida, J. (1999). Hospitality, justice and responsibility: A dialogue with Jacques Derrida. In R. Kearney & M. Dooley (Eds.), *Questioning ethics: Contemporary debates in philosophy* (pp. 65–83). New York: Routledge.
- Derrida, J. (2001). *On cosmopolitanism and forgiveness* (M. Dooley & M. Hughes, Trans.). New York: Routledge.
- Dowdall, C. (2009). Impressions, improvisations and compositions: Reframing children's text production in social network sites. *Literacy*, 43(2), 91–99. doi:10.1111/j.1741-4369.2009.00521.x
- Du Bois, J.W. (2007). The stance triangle. In R. Englebretson (Ed.), *Stancetaking in discourse: Subjectivity, evaluation, interaction* (pp. 139–182). Philadelphia: John Benjamins.
- Eco, U. (1979). *The role of the reader: Explorations in the semiotics of text*. Bloomington: Indiana University Press.
- Ede, L., & Lunsford, A. (1984). Audience addressed/audience invoked: The role of audience

- in composition theory and pedagogy. *College Composition and Communication*, 35(2), 155–171.
- Erstad, O., Gilje, Ø., & de Lange, T. (2007). Remixing multimodal resources: Multiliteracies and digital production in Norwegian media education. *Learning, Media and Technology*, 32(2), 183–198. doi:10.1080/17439880701343394
- Forte, A., & Bruckman, A. (2009). Writing, citing, and participatory media: Wikis as learning environments in the high school classroom. *International Journal of Learning and Media*, 1(4), 23–44. doi:10.1162/ijlm_a_00033
- Gibson, J.J. (1986). *The ecological approach to visual perception*. Hillsdale, NJ: Erlbaum.
- Glaser, B.G., & Strauss, A.L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.
- Hansen, D.T. (2011). *The teacher and the world: A study of cosmopolitanism as education*. London: Routledge.
- Hobbs, R. (2007). *Reading the media: Media literacy in high school English*. New York: Routledge.
- Houser, N., & Kloesel, C. (Eds.). (1992). *Selected philosophical writings: Vol. 1 (1867–1893). The essential Peirce*. Bloomington: Indiana University Press.
- Hull, G.A., & Nelson, M.E. (2005). Locating the semiotic power of multimodality. *Written Communication*, 22(2), 224–261. doi:10.1177/0741088304274170
- Hull, G. A., & Stornaiuolo, A. (2012, April). *Cosmopolitan literacies, social networks, and 'proper distance': The struggle for understanding in a global world*. Paper presented at the annual meeting of the American Educational Research Association, Vancouver, Canada.
- Hull, G.A., Stornaiuolo, A., & Sahni, U. (2010). Cultural citizenship and cosmopolitan practice: Global youth communicate online. *English Education*, 42(4), 331–367.
- James, C. (with Davis, K., Flores, A., Francis, J.M., Pettingill, L., Rundle, M., et al.). (2009). *Young people, ethics, and the new digital media: A synthesis from the Good Play Project*. Cambridge, MA: MIT Press. Retrieved July 31, 2012, from www.goodworkproject.org/research/goodplay/
- Kant, I. (1983). *Perpetual peace and other essays* (T. Humphrey, Trans.). Indianapolis, IN: Hackett.
- Kress, G. (2003). *Literacy in the new media age*. New York: Routledge.
- Kushner, S. (2011). Virtually dead: Blogospheric absence and the ethics of networked reading. *The Communication Review*, 14(1), 24–45.
- Lam, W.S.E. (2006). Culture and learning in the context of globalization: Research directions. *Review of Research in Education*, 30(1), 213–237. doi:10.3102/0091732X030001213
- Leander, K.M., & Lewis, C. (2008). Literacy and Internet technologies. In N.H. Hornberger (Series & Vol. Ed.) & B. Street (Vol. Ed.), *Encyclopedia of language and education: Vol. 2. Literacy* (2nd ed., pp. 53–70). New York: Springer.
- Leu, D.J., Jr. (2000). Literacy and technology: Deictic consequences for literacy information in an information age. In M.L. Kamil, P.B. Mosenthal, P.D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 743–770). Mahwah, NJ: Erlbaum.
- Leu, D.J., Jr., Kinzer, C.K., Coiro, J.L., & Cammack, D.W. (2004). Toward a theory of new literacies emerging from the Internet and other information and communication technologies. In R.B. Ruddell & N.J. Unrau (Eds.), *Theoretical models and processes of reading* (5th ed., pp. 1570–1613). Newark, DE: International Reading Association. doi:10.1598/0872075028.54
- Leu, D.J., Zawilinski, L., Castek, J., Banerjee, M., Housand, B., Liu, Y., et al. (2007). What is new about the new literacies of online reading comprehension? In L.S. Rush, A.J. Eakle, & A. Berger (Eds.), *Secondary school literacy: What research reveals for classroom practice* (pp. 37–68). Urbana, IL: National Council of Teachers of English.
- Levinas, E. (1969). *Totality and infinity: An essay on exteriority* (A. Lingis, Trans.). Pittsburgh, PA: Duquesne University Press.
- Lewis, C., & Fabos, B. (2005). Instant messaging, literacies, and social identities. *Reading Research Quarterly*, 40(4), 470–501. doi:10.1598/RRQ.40.4.5
- Livingstone, S., & Brake, D.R. (2010). On the rapid rise of social networking sites: New findings and policy implications. *Children & Society*, 24(1), 75–83. doi:10.1111/j.1099-0860.2009.00243.x
- Lunsford, A.A., & Ede, L. (2009). Among the audience: On audience in an age of new literacies. In M.E. Weiser, B.M. Fehler, & A.M. González (Eds.), *Engaging audience: Writing in an age of new literacies* (pp. 42–72). Urbana, IL: National Council of Teachers of English.
- McKenna, M.C., Conradi, K., Lawrence, C., Jang, B.G., & Meyer, J.P. (2012). Reading attitudes of middle school students: Results of a U.S. survey. *Reading Research Quarterly*, 47(3), 283–306. doi:10.1002/RRQ.021
- Mishna, F., Cook, C., Gadalla, T., Daciuk, J., & Solomon, S. (2010). Cyber bullying behaviors among middle and high school students. *American Journal of Orthopsychiatry*, 80(3), 362–374. doi:10.1111/j.1939-0025.2010.01040.x
- Naumann, J., Richter, T., Christmann, U., & Groeben, N. (2008). Working memory capacity and reading skill moderate the effectiveness of strategy training in learning from hypertext. *Learning and Individual Differences*, 18(2), 197–213. doi:10.1016/j.lindif.2007.08.007
- Nelson, M.E. (2006). Mode, meaning, and synaesthesia in multimedia L2 writing. *Language Learning & Technology*, 10(2), 56–76.
- New London Group, The. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66(1), 60–92.

- Peirce Edition Project, The. (1998). *Selected philosophical writings: Vol. 2 (1893–1913). The essential Peirce*. Bloomington: Indiana University Press.
- Ranker, J. (2007). Designing meaning with multiple media sources: A case study of an eight-year-old student's writing processes. *Research in the Teaching of English, 41*(4), 402–434.
- Ranker, J. (2008). Composing across multiple media: A case study of digital video production in a fifth grade classroom. *Written Communication, 25*(2), 196–234. doi:10.1177/0741088307313021
- Reid, J. (2011). "We don't Twitter, we Facebook": An alternative pedagogical space that enables critical practices in relation to writing. *English Teaching: Practice and Critique, 10*(1), 58–80.
- Richards, K.A., & Gomez, K. (2010). Participant understandings of the affordances of Remix World. *International Journal of Learning and Media, 2*(2/3), 101–121. doi:10.1162/ijlm_a_00052
- Rizvi, F. (2009). Towards cosmopolitan learning. *Discourse: Studies in the Cultural Politics of Education, 30*(3), 253–268. doi:10.1080/01596300903036863
- Rowell, J., & Burke, A. (2009). Reading by design: Two case studies of digital reading practices. *Journal of Adolescent & Adult Literacy, 53*(2), 106–118.
- Salmerón, L., & García, V. (2011). Reading skills and children's navigation strategies in hypertext. *Computers in Human Behavior, 27*(3), 1143–1151. doi:10.1016/j.chb.2010.12.008
- Silverstone, R. (2007). *Media and morality: On the rise of the mediapolis*. Malden, MA: Polity.
- Smagorinsky, P. (2001). If meaning is constructed, what is it made from? Toward a cultural theory of reading. *Review of Educational Research, 71*(1), 133–169. doi:10.3102/00346543071001133
- Smagorinsky, P. (2011). Reading as culturally mediated, mediating, and meaningful action. In *Vygotsky and literacy research: A methodological framework* (pp. 123–159). Rotterdam, The Netherlands: Sense.
- Smith, A., & Hull, G. (2012). Critical literacies and social media: Fostering ethical engagement with global youth. In J. Avila & J.Z. Pandya (Eds.), *Critical digital literacies as social praxis: Intersections and challenges* (pp. 63–86). New York: Peter Lang.
- Steinkuehler, C., Compton-Lilly, C., & King, E. (2010). Reading in the context of online games. In K. Gomez, L. Lyons, & J. Radinsky (Eds.), *ICLS '10 proceedings of the 9th International Conference of the Learning Sciences* (Vol. 1, pp. 222–229). Retrieved November 12, 2012, from dl.acm.org/citation.cfm?id=1854389
- Stornaiuolo, A. (2012). *The educational turn of social networking: Teachers and their students negotiate social media*. Unpublished doctoral dissertation, University of California, Berkeley.
- Stornaiuolo, A., Frankel, K., & Hull, G. (2011, March). *Ambassadors, provokers, and appraisers: Understanding the participation spectrum on an international social network*. Paper presented at the annual meeting of the Digital Media and Learning Conference, Long Beach, CA.
- Stornaiuolo, A., Hull, G.A., & Sahni, U. (2011). Cosmopolitan imaginings of self and other: Youth and social networking in a global world. In J. Fisherkeller (Ed.), *International perspectives on youth media: Cultures of production and education* (pp. 263–280). New York: Peter Lang.
- Tierney, R.J., & Pearson, P.D. (1983). Toward a composing model of reading. *Language Arts, 60*(5), 568–580.
- Warschauer, M., & Grimes, D. (2007). Audience, authorship, and artifact: The emergent semiotics of Web 2.0. *Annual Review of Applied Linguistics, 27*, 1–23. doi:10.1017/s0267190508070013
- Yin, R.K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Zhang, S., & Duke, N.K. (2008). Strategies for Internet reading with different reading purposes: A descriptive study of twelve good Internet readers. *Journal of Literacy Research, 40*(1), 128–162. doi:10.1080/10862960802070491