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Participation and Collaboration in Digital Spaces: Connecting High School and College Writing Experiences

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As literacy educators, we're particularly mindful of two different and current conversations about digital literacies that directly inform our experiences in the classroom. The first conversation stems from the development and initial implementation of the Common Core State Standards (CCSS) for high school instruction (Council of Chief State School Officers [CCSSO] and National Governors Association [NGA] 2010) and the work informing the Framework for Success in Postsecondary Writing (Framework), a statement that outlines expectations for incoming college students (Council of Writing Program Administrators [CWPA], National Council of Teachers of English [NCTE], and the National Writing Project [NWP] 2011). These documents directly affect our curricular decisions in a host of ways.

The second conversation that informs our experiences in the classroom is a larger cultural conversation about the implications of digital literacy practices and opportunities. Together, these twin conversations highlight the unsettled, ever-shifting landscape in which the authors of this chapter (Rachel Bear, a high school English teacher; Heidi Estrem and Dawn Shepherd, college professors and writing program administrators; and James E. Fredricksen, a college English education professor) work.

In particular, we focus on how digital literacy practices are developed, enhanced, and supported in two specific settings: one high school English classroom and several classes within a college first-year writing program. Our goal is to consider how our pedagogical decisions in these two different contexts might helpfully echo each other, providing opportunities for richer professional conversations and continued productive learning for students. To deepen our analysis, we explore how the CCSS and Framework inform our teaching while sometimes rendering invisible the kinds of digital literacies our students embody and that we describe in this chapter.

The CCSS are usefully described in this volume's introduction; the Framework is delineated in Chapter 4. Readers of this book might be less familiar with the Framework, a document that evolved out of a critical collaboration between leading professional organizations (NCTE, CWPA, and NWP) engaged with writing instruction at the postsecondary level. Leaders from these organizations developed a framework statement that seeks to describe both the "habits of mind" and the literacy-based "skills and experiences" that are "critical for college success" (CWPA, NCTE, and NWP 2011, 1). The eight habits of mind are curiosity, openness, engagement, creativity, persistence, responsibility, flexibility, and metacognition; the skills and experiences include rhetorical knowledge, critical thinking, writing processes, knowledge of conventions, and the ability to compose in multiple environments (1). Together, the CCSS and the Framework provide two important external maps, one of high school curriculum and one of entering college-level expectations, that capture an important perspective on the current national context within which literacy education occurs. Their

purpose is to provide clear points of entry into curricula for a variety of stakeholders. Our goal, then, is to locate how practices that support rhetorical digital literacy might best be supported within very specific, localized practices and through these macro-lens documents.

The intersections of these various contexts—in particular, the classroom and these standards-like documents—can make for a difficult landscape for teachers of writers to navigate. However, all of us are members of a larger “participatory” culture that digital work makes possible. This third factor—a proposal for 21st-century literacy education by media scholar Henry Jenkins and colleagues—helps connect these educational contexts to a conception of the hope and possibility in online cultures. We use Jenkins’s *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century* (2006) because he describes elements of a culture based on participation that we try to promote in our classrooms. Moreover, we believe his concepts aid us in helping to step back from our immediate contexts so that we might identify the challenges and gaps we often feel, but can’t quite name, in our day-to-day work. Although Jenkins locates participatory cultures as sites *beyond* “institutions” such as schools, our experiences demonstrate that the classroom can, in fact, embody and promote many aspects of participatory culture. As we aim to demonstrate here, the classroom often offers unique opportunities for students to engage with and experience many features of a “participatory” online culture within a specific community of learners.

In this chapter, we first describe Jenkins’s vision of participatory culture. We then use three selected terms from his definition—*collective intelligence*, *networking*, and *negotiation*—as especially powerful lenses to help enrich our understandings of rhetorical digital education. Using examples from high school and college classrooms, we draw from the CCSS and the Framework to explore the connections (or lack thereof) between participatory culture and the implications of these two documents for classroom practice. In doing so, we hope readers will be able to imagine new possibilities for digital literacies while also gaining

a more complex understanding of the possibilities and challenges of working in classrooms that are already a part of a participatory culture.

Participatory Culture and Literacy Classrooms

In *Confronting the Challenges of Participatory Culture*, Jenkins offers three faulty assumptions embedded in a “laissez faire approach” to media literacy. First, Jenkins describes the *participation gap*, or the assumption that all young people have even and equitable access to technologies. Second, the *transparency problem* is the assumption that students actively engage with and reflect on their encounters with media. Third, the *ethics challenge* is the assumption that adolescents can cultivate ethical standards in isolation (2006, 12). This kind of approach, also echoed in the culturally held stereotype that students are digital natives who take to new technologies effortlessly and willingly, expects students to acquire the competencies necessary for meaningful engagement with new media without training and support from educators or other adults. (For more on the controversy surrounding the term *digital natives*, see Prensky [2001] and Bennett, Maton, and Kervin [2008]. In this volume, see Chapter 16 by Tawnya Lubbes and Heidi Skurat Harris. Also see Chapter 7 in this volume by James Cercone and David L. Bruce, which discusses media literacy as a lens for understanding the CCSS).

Jenkins advocates for an approach to digital literacy that includes training not only in critical engagement with digital information, but also production of digital texts. He argues, “[T]he core goals of the media literacy movement should be helping young people to acquire the skills and competencies they need to meaningfully participate in the culture around them” (2006, 12). For Jenkins, participatory culture is “the emergence of a cultural context that supports widespread participation in the production and distribution of media” (6). Contemporary participatory culture includes these traits (7):

- *Low barriers* for making artistic or civic contributions
- *Strong support* for creating and sharing

- *Informal mentorship* in which experts assist novices with their work
- A feeling among all participants that what they do *matters*
- And a feeling that they are *socially connected* to one another

In addition to these five traits, the degree to which individuals contribute in a participatory culture matters less than the fact that members feel free to participate within that culture. Considering new media literacies as a matter of cultural participation, rather than technological expertise, allows us to situate writers and technologies within larger systems. This *ecological approach* includes “thinking about the interrelationship among all of these different communication technologies, the cultural communities that grow up around them, and the activities they support” (Jenkins 2006, 8).

Jenkins describes a kind of culture we hope to create in our classrooms of writers; in high school and college, we want our students to make contributions, to feel and to provide support for one another, to learn from more experienced writers, to write about topics and in different modes and media that matter to them and to others, and to feel connected to other members of the classroom community. As a new media scholar, Jenkins writes about young people participating in communities within and outside classrooms, which allows him to highlight participatory practices rather than concentrate on individual performances. This broader focus helps us understand literacy and learners in our classrooms. For example, when Jenkins writes that “all youth need to learn if they are going to be equal participants in the world of tomorrow” (2006, 21), we can begin to imagine a classroom community in which students participate in one another’s growth as writers. This, in turn, can help us and our students understand literacies “as ways of interacting within a larger community, and not simply an individualized skill to be used for personal expression” (20). Creating and sustaining a participatory culture in our classrooms of writers is difficult, challenging, and exciting, especially during a time with dynamic conversations that fuel changes in our teaching contexts. However, by imagining classroom spaces as yet another “cultural community”—one

with the affordances of participatory culture, even if mediated through the institutional setting—we can facilitate learning and empower students with important skills required for contemporary professional and civic engagement.

Participatory culture requires a unique set of capacities, and Jenkins identifies eleven key competencies for contemporary media literacy (4):

- Play
- Performance
- Simulation
- Appropriation
- Multitasking
- Distributed cognition
- Judgment
- Transmedia navigation
- Collective intelligence
- Networking
- Negotiation

Some of these competencies share a common spirit with important concepts in the fields of writing studies and English education. For example, Jenkins defines play as “the capacity to experiment with one’s surroundings as a form of problem-solving” and emphasizes the significance of engagement, as opposed to fun” (4–5). Likewise, one central component of most writing classes is a focus on the writing process, including drafting and revising, that allows students to experiment, explore, engage with ideas, and problem solve. All of these skills are valuable for writers and writing, and we cannot adequately account for all in the space of one chapter. We have chosen to highlight three skills—collective intelligence, networking, and negotiation—because we have focused on them in our teaching and because they are especially illuminating when applied to English Language Arts (ELA) and first-year writing pedagogies.

Collective Intelligence: Collaboration and Community in High School and College

Drawing on Pierre Levy, Jenkins defines *collective intelligence* as a capacity for cooperative knowledge production that allows people to come together, share what they know, and work toward a united objective. Capitalizing on computer network capabilities, individuals can participate in collaborations where “everyone knows something, nobody knows everything, and what any one person knows can be tapped by the group as a whole” (Jenkins 2006, 39). Levy is especially interested in the political and civic implications of collective intelligence, such as empowering citizens to organize for political action. Wikipedia—in which users work together to research, write, edit, and connect online encyclopedia entries—serves as a familiar example of collective intelligence at work. Jenkins offers potential collective intelligence class projects, including a student-created guide to local government that brings together officials’ contact information, reports, policies, discussions of local issues, and so on (43).

Just as digital spaces can increase opportunities for the benefits of collective intelligence to accrue, literacy classrooms can offer multiple opportunities for collaborative, collective work. In high school English and college first-year writing classrooms, collaboration (e.g., group work, peer review, and even pedagogical commonplaces like “think-pair-share”) is nearly a given. *Collaboration* is described in several places in the CCSS and points to how high school students could and should interact with others. However, re-thinking this term through understanding it as a form of collective intelligence helps us unsettle and enrich this kind of classroom practice.

As we see in Table 5.1, these frameworks usefully overlap with one another: Jenkins’s hopeful vision of collective intelligence imagines a space where “problem-solving [is] an exercise in teamwork” (2006, 40). The CCSS and the Framework approach this kind of purposeful collaboration in different ways. The CCSS see collaboration as a joint enterprise to help individuals make a point or to develop their own perceptions. For instance, the CCSS want students to build on others’

Table 5.1 Jenkins’s Idea of Collective Intelligence Compared to the CCSS and Framework

| Confronting the Challenges of Participatory Culture (Jenkins et al. 2006) | CCSS (CCSSO and NGA 2010) | Framework (CWPA, NCTE, and NWP 2011) |
|---|---|---|
| <p><i>Collective Intelligence:</i> The ability to pool knowledge and compare notes with others toward a common goal</p> | <p>Anchor Standard for Speaking and Listening #1 for 6–12: “Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others’ ideas and expressing their own clearly and persuasively” (48)</p> <p>Anchor Standard for Writing #6 for 6–12: “Use technology, including the internet, to produce and publish writing and to interact and collaborate with others” (41)</p> <p>Anchor Standard for Writing #7 for 6–12: “Conduct short as well as more sustained research projects based on focused questions, demonstrating knowledge of the subject under investigation” (41)</p> <p>Anchor Standard for Writing #8 for 6–12: “Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism” (41)</p> | <p><i>Openness:</i> “The willingness to consider new ways of being and thinking in the world. ... Openness is fostered when writers are encouraged to:</p> <ul style="list-style-type: none"> • Examine their own perspectives to find connections with the perspectives of others • Practice different ways of gathering, investigating, developing, and presenting information” (4) <p><i>Engagement:</i> “A sense of investment and involvement in learning. ... Engagement is fostered when writers are encouraged to:</p> <ul style="list-style-type: none"> • Make connections between their own ideas and those of others • Find meanings new to them or build on existing meanings as a result of new connections • Act upon the new knowledge that they have discovered” (4) <p><i>Responsibility:</i> “The ability to take ownership of one’s actions and understand the consequences of those actions for oneself and others. ... Responsibility is fostered when writers are encouraged to”</p> <ul style="list-style-type: none"> • Recognize their own role in learning • Act on the understanding that learning is shared among the writer and others—students, instructors, and the institution, as well as those engaged in the questions and/or fields in which the writer is interested • Engage and incorporate the ideas of others, giving credit to those ideas by using appropriate attribution” (5) |

ideas in conversations and to use technology to collaborate with others. When it comes to research, the CCSS also call for students to gather information from many types of sources and integrate that information in a final product, but doesn’t necessarily require that the information be shared with the group as a whole. The CCSS *seem* to see collaboration as a desirable practice for individuals; however, the implicit benefit is that the collaboration with others enables individual production.

Less clear is what the CCSS see as benefits for the entire group. That is, unlike Jenkins, the CCSS do not address how collaboration shapes the group or the community as a whole, which is something that educators who work with groups of all kinds must consider.

Similarly, the Framework describes *a* learner—a learner who embodies the eight habits of mind outlined in the Framework and will, in turn, be well situated for participatory culture. However, this vision of a learner is one who might “find connections” between her ideas and those of others and “engage and incorporate” the ideas of others. The document does state that “learning is shared,” which usefully points back to Jenkins’s vision of collective, generative knowledge production. Overall, though, the location for the learning is within the individual.

Collective Intelligence in a High School English Classroom Context

Over several years of experimentation with wikis in the classroom, Bear, a high school ELA teacher, has seen how and why wikis are particularly useful in helping students experience and navigate participatory culture. A wiki is only sustainable, in our opinion, through collective intelligence. In order to effectively use wikis, Bear sets up a situation where students have a common goal and a reason for pooling knowledge, a presentation project where students research a story that is often referenced in literature and pop culture, and then present the information to their classmates and share the information on a wiki. This is a relatively short research project (Anchor Standard for Writing 7; CCSSO and NGA 2010, 18), but one that gives students an opportunity to gather and integrate “information from multiple print and digital sources” (Anchor Standard for Writing 8; CCSSO and NGA 2010, 18) with the goal of “demonstrating understanding of the subject under investigation” (Anchor Standard for Writing 7; CCSSO and NGA 2010, 18). By making presentations available to all class periods, the wiki provides an opportunity for students to reach an audience of more than 120 students and to think about revising content for a different “task, purpose, and audience” (Anchor Standard for Writing 4; CCSSO and NGA 2010, 18).

Bear emphasizes the importance of making decisions based on a different task, purpose, and audience, and the fact that students are accountable to their peers for what they produce. The idea is to set up a situation focused on collaboration and teamwork, as Jenkins puts it, “how the workplace is structured—around ad-hoc configurations of employees, brought together because their diverse skills and knowledge are needed to confront a specific challenge, then dispersed into different clusters of workers when new needs arise” (2006, 41). Once students start working on their wikis in their groups, they quickly began negotiating how to meet a specific challenge, creating the document for their peers to view, understand, and, perhaps most importantly, use.

During one wiki project, Bear saw much evidence of collective intelligence (see Appendix A at the end of this chapter for the complete assignment). Groups who were not ready to tackle an entirely new digital space collaboratively composed a document or a slideshow to upload to the wiki. These students learned “to work and play in [this] knowledge culture” and “to think of problem-solving as an exercise in teamwork” (Jenkins 2006, 40). The same was true for groups who embraced the challenge of creating a wiki, something none of them had done before; they embedded videos, images, and songs to their pages; hyperlinked to other websites; and composed simultaneously, adding new ideas as they developed. Some students were interested in visuals and films and brought their knowledge to the table. Other students conducted research while still others employed their skills to embed video clips. During the composing process, some groups accessed other groups’ sites from across class periods to get ideas for how to make their own pages better. Although a new opportunity for these traditionally “autonomous problem solvers,” Bear was amazed at how easily students joined this “collective intelligence community [which encouraged] work as a group” (Jenkins 2006, 41).

Collective Intelligence in a First-Year Writing Context

As we note in Bear’s experience, digital work is challenging and even results in productive failure for students and educators. At Boise State University, the first-year writing curriculum of Estrem and Shepherd

takes up many of the same practices that Bear employs in her ELA classroom. Like many educators working within institutions, they too have kept the focus on individual students because of assessment demands. However, many informal activities within the writing classroom have helped provide students with brief, informal, low-stakes experiences as a member of a team working within a collective, unstable knowledge community.

The first-year writing curriculum at Boise State coheres around shared outcomes. For example, the English 101 curriculum focuses on exploring and analyzing writing as a subject while experiencing (and reflecting on) writing as an activity. Informal and formal writing assignments generally engage students in thinking carefully about their writing experiences and those of others as they work to build their own theory of writing, analyze and contribute to ongoing intellectual conversations, analyze discourse communities, and engage in rhetorical problem-solving in a new context.

The first-year writing instructors at Boise State, like Rachel, intuitively understand the pedagogical power of collaborative online work. To develop more intentional opportunities for experiencing ways to build collective intelligence within the classroom, they have encouraged the use of digital tools, and more and more instructors have used seemingly simple Google apps in ways that engage students in “pool[ing] observations and work[ing] through interpretations with others studying the same problems” (Jenkins 2006, 42). They have seen how low-stakes engagements in spaces that encourage collective intelligence can occur even within the physical classroom space.

Jessica Ewing, a teaching assistant (TA) in the first-year writing program, experiments alongside her students with Google apps. As a strategy to foster interaction and brainstorming, she implements in-class, informal Google presentations that in some ways push back against the very genre expectations themselves, using a *presentation* tool as an *inventive* space. In teams, students generate a slide about a particular course reading (see Appendix B at the end of this chapter for an explanation of this activity). During one recent class, Ewing used an

incredibly challenging article that requires students to think about professional writing and community-specific vocabulary. Ewing's students expressed discomfort with the reading, but after demonstrating how they could all collaborate on their slides, she encouraged them to read and re-read, to work on their slides, to see what others were sharing, and to check in verbally as needed. Students were engrossed in their work, moving quickly between online composing, in-person discussions, and immediate revisions to their collaborative slide presentations. This teamwork approach, then, became an exercise in problem-solving on the fly. It wasn't just an act of collaboration; it was an experience that demonstrated how their perspectives could shift and change as they added, refined, and deepened their understanding of a difficult reading through this form of online composing.

Networking: Source Use and Integration in High School and College

Within participatory culture, *networking* is “the ability to search for, synthesize, and disseminate information” (Jenkins 2006, 49). Jenkins points out that contemporary students regularly use web applications that rely on social information sharing and knowledge production. Search engines, online retailers, and streaming media services use a combination of user-generated content (e.g., reviews) and aggregated data about users to make suggestions. For example, Amazon recommends products to customers based on items they have previously viewed or purchased—and items previously viewed or purchased by other, similar users. Customers can then further filter their options by reading user-created reviews. In such a data-rich, networked world, it's no longer enough to imagine an individual scholar working independently. Instead, as Jenkins describes, a “resourceful student” is “one who is able to successfully navigate an already abundant and continually changing world of information” (49).

As Table 5.2 demonstrates, these statements all ascribe some degree of value to the ability to navigate information through research. In both high school English and college first-year writing classrooms, deepening

Table 5.2 Jenkins’s Idea of Networking Compared to the CCSS and Framework

| Confronting the Challenges of Participatory Culture (Jenkins et al. 2006) | CCSS (CCSSO and NGA 2010) | Framework (CWPA, NCTE, and NWP 2011) |
|---|---|--|
| <p><i>Networking</i>: The ability to search for, synthesize, and disseminate information (49)</p> | <p>Anchor Standard for Writing #2 for 6–12: “Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content” (35)</p> <p>Anchor Standard for Writing #8 for 6–12: “Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism” (41)</p> <p>Anchor Standard for Reading #7 for 6–12: “Integrate and evaluate content presented in diverse media and formats and media, including visually and quantitatively, as well as in words” (35)</p> <p>Anchor Standard for Speaking and Listening #5 for 6–12” “Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations” (48)</p> | <p><i>Curiosity</i>: “The desire to know more about the world. ... Curiosity is fostered when writers are encouraged to:</p> <ul style="list-style-type: none"> • Use inquiry as a process to develop questions relevant for authentic audiences within a variety of disciplines • Seek relevant authoritative information and recognize the meaning and value of that information • Conduct research using methods for investigating questions appropriate to the discipline • Communicate their findings in writing to multiple audiences inside and outside school using discipline-appropriate conventions” (4) <p><i>Openness</i>: “The willingness to consider new ways of being and thinking in the world. ... Openness is fostered when writers are encouraged to:</p> <ul style="list-style-type: none"> • Examine their own perspectives to find connections with the perspectives of others • Practice different ways of gathering, investigating, developing, and presenting information • Listen to and reflect on the ideas and responses of others—both peers and instructors—to their writing <p><i>Creativity</i>: “The ability to use novel approaches for generating, investigating, and representing ideas. ... Creativity is fostered when writers are encouraged to:</p> <ul style="list-style-type: none"> • Take risks by exploring questions, topics, and ideas that are new to them • Use methods that are new to them to investigate questions, topics, and ideas” (4–5) |

students' flexibility as researchers is a key goal. Successful writers grow to understand these concepts:

1. "Information" is not static.
2. The "information" landscape is not flat—that is, there are quite different values, contexts, and purposes for publications that might appear similar when read, for example, on a screen.
3. They need not just to consume "information" but to interpret, analyze, and reshape it.

These are highly context-specific strategies that writers accumulate over time and space. Or, in Jenkins's words, students must be able to "identify which group is most aware of relevant resources and choose a search system matched to the appropriate criteria ... networking involves the ability to navigate across different social communities" (2006, 50). It's not only about identifying sources; it's also about "a process of synthesis, during which multiple resources are combined to produce new knowledge" (50). Students, then, need to understand "how to sample and distill multiple, independent perspectives" (51).

This process of synthesis and knowledge production is something the CCSS expect of students. For example, the CCSS ask students to "convey complex ideas and information clearly and accurately (Anchor Standard for Writing 2; CCSSO and NGA 2010, 18), to "gather relevant information from multiple print and digital sources" (Anchor Standard for Writing 8; CCSSO and NGA 2010, 18), to "integrate and evaluate content presented in diverse media and formats" (Anchor Standard for Reading 7; CCSSO and NGA 2010, 10), and to "make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations" (Anchor Standard for Speaking and Listening 5; CCSSO and NGA 2010, 22). Situated behind each of these individual standards is an overarching emphasis for students to take into account the task, purpose, and audience during rhetorical occasions, whether the student is a writer, reader, speaker, or listener during those moments. The implication for us as teachers and librarians is clear: We must teach students to be able

to navigate rhetorical situations independently and strategically. That is, context matters. By this, we mean that networking is not a skill that is practiced in isolation; instead, it is a practice that relies on being able to read situations in which writers, readers, speakers, and listeners participate.

Networking practices are also present in the Framework; the habits of mind section of the Framework speaks to the intellectual dexterity and rhetorical flexibility that 21st-century literacies demand. The description of learners who are curious, open, creative, and persistent describes the kind of student who is able to search for, analyze, and interact with others' ideas. The Framework also imagines "information" as something relatively static, something that writers "seek ... gather, investigate, develop, and present" (CWPA, NCTE, and NWP 2011, 4). Similar to Jenkins's point that networking is a process of synthesis and knowledge production, the Framework describes how engagement is fostered through students' work to "find meanings new to them or build on existing meanings as a result of new connections; and act upon the new knowledge that they have discovered" (4). Networking, then, might occur within a literacy classroom in a variety of ways; it might mean how to navigate search engines, how to make informed rhetorical decisions about source use and accessibility, and how to integrate those ideas within one's own in a meaningful way (see Table 5.2).

Networking in a High School English Classroom Context

Bear recently integrated a multimodal project into her senior high school English course (see Appendix C at the end of this chapter for the complete assignment). Students used their wikis as a platform for composing and sharing different modes of writing (e.g., visual text, videos, hyperlinks, written words) to explore a topic. Since wikis provide a situation in which students can view the work of their peers *as they are composing*, Bear's students were able to use the in-progress work of others to inform their own multimodal projects. Understanding that their work is being shared during and after writing was a huge motivator for Bear's students to create something that fits the specific purpose of the writing task—and to understand *audience* differently than they might

have before. This understanding points to the notion that networking is a process in which students need to see and discuss the choices they and their peers make as they are searching for, synthesizing, and sharing the material they shape into texts for audiences. That is, networking is not something that is done in isolation; it involves choices based on purpose and audience. When students like Bear's can see and discuss those choices in real-time, then they can see networking of knowledge and networking of practices in tandem. Moreover, such transparency about process can assist not only individual writers, but also communities of writers.

Networking in a First-Year Writing Context

One feature of Estrem and Shepherd's first-year writing curriculum is their commitment to engaging students with academic inquiry in new and different ways; the "abundance" of resources is both a challenge and an opportunity for writers new to college. Networking is a rhetorical act, one where students need to learn a lot: how to find sources, how to synthesize them, how to consider when, how, and why to use them. Just as multimodal projects are employed in Bear's high school classes, many first-year writing instructors use digital projects with relatively accessible points of entry for student writers to gain experience with how information develops within networks—and how to assess, synthesize, and respond to that information.

For an English 101 unit, the TA Ewing uses an approach that gives her students immediate experience with networked information. Throughout the semester, Ewing's students regularly share ideas and negotiate understandings of what writing really *is* through collaborative Google presentations, docs, and site pages. This consistent, ongoing informal work prepares her students well for their final project—a collaborative, dynamic online map that identifies locations of writing on campus (see Appendix D at the end of this chapter for the complete assignment). For example, many student groups created SlideRocket slideshows depicting the writing practices of a discourse community they had studied. Then they linked those slideshows to an interactive Google map, which allowed readers (initially within their class and later

beyond) to toggle through various writing contexts within a particular location. Recently, as students read and re-read one another's work, they shifted and revised their embedded presentations, integrating sources and adapting to ongoing in-process feedback as needed. Their first-year writing classroom became a space for trying out new digital tools, reflecting on how they affected a community of peers, and integrating evidence thoughtfully and purposefully. They networked information and ideas within a classroom reflecting many features of participatory culture: ongoing exchanges, constant purposeful play and revision, and immediate audience.

Negotiation: Rhetorical Flexibility in High School and College

The concept of negotiation highlights the competencies necessary for navigating networked and globalized contexts. Jenkins defines *negotiation* as “the ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative sets of norms” (2006, 52). He notes that online spaces, such as social networking sites, allow not only connections based on shared interests and values, but also exclusions based on difference. For this reason, Jenkins calls for fostering digital literacies that enable students to interact decorously in new environments. He presses educators to build on activities that address cultural awareness and sensitivity—such as reading and discussing work from other cultures or analyzing portrayals of gender, race, and religion in popular media—with those that empower them to participate within these “diverse communities.” Such participation requires the capacity to negotiate “between dissenting perspectives” and “through diverse communities” (53). Jenkins recommends having students observe or contribute to online spaces (e.g., Wikipedia) that include deliberating among users with multiple perspectives and backgrounds or discussing cultural norms (e.g., what it means to be a good parent) with students in other countries (54–55).

Both the CCSS and the Framework recognize the value in the ability to negotiate diverse contexts and situations (see Table 5.3). This kind of meta-awareness about what one is doing is an “active, dynamic process,”

Table 5.3 Jenkins’s Idea of Negotiation Compared to the CCSS and Framework

| Confronting the Challenges of Participatory Culture (Jenkins et al. 2006) | CCSS (CCSSO and NGA 2010) | Framework (CWPA, NCTE, and NWP 2011) |
|---|---|---|
| <i>Negotiation</i> : The ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms (52) | <p>Anchor Standard for Speaking and Listening #1 for 6–12: “Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others’ ideas, and expressing their own clearly and persuasively” (48)</p> <p>Anchor Standard for Language #3 for 6–12: “Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening” (51)</p> <p>Anchor Standard for Speaking and Listening #2 for 6–12: “Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally” (48)</p> <p>Anchor Standard for Reading #6 for 6–12: “Assess how point of view or purpose shapes the content and style of a text” (35)</p> | <p>Flexibility: “The ability to adapt to situations, expectations, or demands” (4)</p> <p>Metacognition: “The ability to reflect on one’s own thinking as well as on the individual and cultural processes used to structure knowledge” (5)</p> <p>Critical thinking: “The ability to analyze a situation or text and make thoughtful decisions based on that analysis, through writing, reading, and research” (7)</p> |

and engaging in this process increases the opportunities for the transfer of learning from one situation to the next (Bransford 2000, 53). In other words, students in literacy classes both *do* things and *reflect* on them. In the CCSS, students need to be able to work on “collaborations with diverse partners,” to use “diverse media,” and to understand how “point of view or purpose shapes ... a text” (Anchor Standards for Speaking and Listening 1 and 2; CCSSO and NGA 2010, 48, 35). As writers, students are expected to engage with divergent perspectives and then shape their writing in response to audience expectations. Similarly, the Framework emphasizes flexibility, adaptiveness, and metacognition. It describes writers who are able to adapt and respond to a variety of rhetorical choices, “reflect on the choices they made,” and “reflect on one’s own thinking” (CWPA, NCTE, and NWP 2011, 4).

Negotiation in a High School English Classroom Context

Secondary teachers often have concerns about whom students will meet in the virtual world and how to ensure that they are respectful of other

students in online collaborations. Jenkins points out that “cyber communities often bring together groups that would have no direct contact in the physical world” (2006, 52), but dealing with this problem is not so different from teaching a group of 15-year-olds to have a respectful, academic conversation about a political topic or a work of literature. The answer to concerns about respect in digital platforms is the same as the answer to concerns about other peer interactions: Students need to be *taught* (through modeling, reflection, and evaluation) the skills necessary for “understanding multiple perspectives, respecting and even embracing diversity of views, understanding a variety of social norms and negotiating between conflicting opinions” (2006, 53).

One strategy Bear uses for teaching these skills is to simulate online discussions in the classroom before setting students free to practice in digital spaces. For example, an in-class discussion activity with sticky notes added to posters around the room can simulate the kind of online post-and-comment exchanges that writers negotiate. After in-class work, students can then write entries on individual blogs and comment on one another’s posts. Bear has found that understanding the scarcity of reader attention is a huge motivator for students to create posts that look appealing and are easy to read. In addition, Bear’s classes review blogs in class and discuss strengths and areas for improvement. This creates a culture of openness about proper etiquette for online discussions and strategies for setting up “a deliberative process in the classroom that encourages collaboration and discussion across different positions” (Jenkins 2006, 55). The key to ensuring students have the skill of negotiation (and can demonstrate the related CCSS) is to keep in mind that this must be taught just as we teach the other necessary skills more explicitly outlined in the CCSS.

Negotiation in a First-Year Writing Context

Like Bear, Estrem and Shepherd also view negotiation both as something that needs to be taught and as something for which literacy classrooms have particularly rich opportunities. They are especially appreciative of Bear’s activities described earlier, as they demonstrate how “digital” and “online” work can occur in low-tech settings. They

too make use of posters, sticky notes, and “commenting” in many classroom activities. Instead of sharing examples along those lines, they would like to build on Bear’s activity descriptions and consider how to foster knowledge *transfer*, how to help students like Bear’s find their bearings and negotiate new rhetorical contexts when they come to college. Skilled negotiators will, they believe, have better opportunities for understanding learning in different contexts as they move from high school to college, from first-year writing to disciplinary contexts, from disciplines to the workplace and the community.

Like Jenkins, Estrem and Shepherd are interested in providing an environment where students learn to negotiate across communities, particularly rhetorical contexts and situations. Digital learning experiences give students multiple opportunities to experience different rhetorical contexts—and then to critically analyze and reassess their work within those contexts. Digital platforms make abstract concepts about writing—in particular, *audience* and *context*—differently visible, and thus afford an opportunity to unsettle students’ sometimes-rigid definitions of writing.

One strategy to help foreground audience is facilitated through the use of Google Docs (go to drive.google.com and click on Docs). For example, students write and share their writing within a classroom group on Google Docs, adding their own questions and comments about their evolving text—and inviting others to do the same. Much like Bear describes, Estrem, Fredricksen, and Shepherd too see students who begin to understand audience differently when they must repeatedly make decisions about how to address audience needs and questions. This kind of commenting is easily replicated in a low-tech classroom and gives students a different way to understand audience since the audience is in the room with them. (For further discussion on how economically strapped schools are meeting the CCSS, see Chapter 11 by Amanda Stearns-Pfeiffer in this volume). Writers can respond to comments and can—either immediately or over days and weeks—rethink and revise. The text becomes an act of connection, an opportunity to communicate, and a means through which a writer

must revise if she is to be heard. Like Bear describes, “commenting” has become a common digital practice, and learning how to imagine an audience and respond to it is a 21st-century negotiation skill that literacy classrooms can foster.

Participatory Cultures and Literacy Classrooms

In this chapter, we have worked to explore the possibilities for participatory culture within classroom contexts, and Jenkins’s vision has helped us enrich the CCSS and the Framework by giving us a way to see the gaps and connections between our contexts and by providing a new lens for understanding our students’ experiences in learning to write, particularly in digital environments. Our aim has been to use the notion of participatory culture to enrich our understanding of teaching. At the same time, we have shared experiences from our own teaching contexts to better comprehend the challenges, nuances, and tensions of working with writers under a framework that centers on learning within participatory culture.

This collection’s goal is, in part, to support teachers’ and librarians’ implementation of strategies related to the CCSS. Working with the CCSS is deeply important and can bring layers of productive change to the classroom. Simultaneously, a focus on “college and career readiness” can diminish the importance of preparing students for civic engagement, just as a reliance on individual assessment can limit opportunities to develop truly collaborative social skills required in participatory culture. Indeed, the CCSS and the Framework emphasize individual *performance* while Jenkins emphasizes individual *participation*. However, this distinction sheds light on the silences in our driving documents and opens up the opportunity for us to reframe how we think about working and writing together.

Finally, the contexts in which we teach matter a great deal to us. That is, our contexts shape what we think is possible and desirable for our students; they shape our vision of professional practice. When we have students collaborate, for instance, they have to negotiate what things mean (e.g., what a task means, what content means, what audiences

expect, and so on). The same is true when teachers collaborate; we have to navigate and negotiate a whole host of communities we participate in, and documents like the CCSS and the Framework become sites where that negotiation of meaning is made visible. Much of what we've discussed from our literacy classrooms has been rooted in understanding writing as a conversation, and this chapter is a conversation starter rather than a last word. As we bring together the CCSS, the Framework, and *Confronting the Challenges of Participatory Culture*, we see a chance to refocus our attention on ideals that we honor, such as collaboration and civic engagement, that are fostered overtly in digital spaces.

References

- Bennett, Sue, Karl Maton, and Lisa Kervin. 2008. "The 'Digital Natives' Debate: A Critical Review of the Evidence." *British Journal of Educational Technology* 39 (5): 775–786.
- Bransford, John. 2000. *How People Learn: Brain, Mind, Experience, and School*. National Research Council Committees on Developments in the Science of Learning and Learning Research and Educational Practices. Washington, DC: National Academy Press.
- Council of Chief State School Officers and National Governors Association. 2010. *Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects*. Washington, DC: National Governors Association Center for Best Practices, Council of Chief State School Officers. Accessed February 10, 2014. www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf.
- Council of Writing Program Administrators, National Council of Teachers of English, and National Writing Project. 2011. *Framework for Success in Postsecondary Writing*. Accessed February 10, 2014. wpacouncil.org/files/framework-for-success-post-secondary-writing.pdf.
- Jenkins, Henry with Katie Clinton, Ravi Purushotma, Alice J. Robison, and Margaret Weigel. 2006. *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. Chicago: MacArthur Foundation. Accessed February 10, 2014. digitallearning.macfound.org/atf/cf/%7B7E45C7E0-A3E0-4B89-AC9C-E807E-1B0AE4E%7D/JENKINS_WHITE_PAPER.PDF.
- Prensky, Marc. 2001. "Digital Natives, Digital Immigrants." *On The Horizon* 9 (5): 1–6.

Appendix A: How Do Stories Matter?: Student-Led Lesson on Stories We Remember and Tell Assignment for Advanced Placement Literature and Composition

Purpose

The purpose of this assignment is for students to research and present a character, object, event, place or plot line, or story that is often alluded to in literature in order to help all students have a better understanding of these elements to identify and analyze them when they appear.

Assignment

Each group will choose one item from the list I have compiled. It will be your job to research this item and teach it to the rest of the class in a way that is meaningful. You will also need to create an electronic document with the information to be posted to the wikispace. Finally, you will turn in a hard copy MLA formatted Works Consulted Page (it's just like a works cited page only it includes all the sources you consulted in creating your presentation and documents). You are encouraged to use Dropbox to create these parts of the assignment to ensure a balanced workload.

Requirements

Both parts of the assignment (presentation and post to wiki) should include:

- Definition/explanation of the story (background, heritage, chronology, summary, etc.)
- Exploration of how the story functions within a specific text (a direct passage and explanation of its significance)
- “Tip-Offs”—for the allusion or its presence in the work
- Examples of the story in mythology, fairy tales, pop culture, music, contemporary literature, etc.

Basically, your presentation and other documents should address what it is, where we can find it, how we know when we come across it and why it matters.

The Different Parts

Presentation

You will have 8 to 10 minutes to “teach” your story to the class. I do not consider standing up and reading PowerPoint slides to be teaching. Think about the effective ways in which you learn new concepts and draw from that experience to teach your peers. Of course it is acceptable to have information on PowerPoint slides and to use slides to guide your lesson, but find an engaging and meaningful way to share the information you have found. All group members should be involved in the presentation in some way. You will have access to the computer, smartboard, document camera, and whiteboard in your presentation. Please test all technology prior to the day of presentations. Consider what is typically done in class presentations and avoid doing that so we are not overwhelmed by repetition during presentations.

Some ideas: guided small/large group discussion; creation of visual representations; sharing and discussing videos, commercials, ads, songs, etc.; games, dramatization, etc.

Wiki Document

Each group will be expected to create an electronic document to post to the provided page on the wikispace. This document should be designed so that students from the other class periods can access it and get the information you have found. Your audience is different (individuals reading the information on a computer rather than receiving a presentation) so this document should not be exactly the same thing you share in class. You have a number of options for the format of this document, but remember that your purpose here is the same as the presentation: to teach the other Advanced Placement (AP) Literature and Composition students about your story. The title of this document should be the name(s) of your story followed by the names of your group members. Your audience is other AP students who need this information. Consider how you can most effectively share it with them. Some ideas: interactive PowerPoint, web page, multimodal essay, wiki page.

MLA-Formatted Works Consulted Page

You must submit an MLA-formatted Works Consulted Page to me on the day of your presentation. This document should include *all* the sources you consulted in the process of planning your presentation and wiki document. Google *Owl Purdue* for a great site that will help you with this task.

Appendix B: Using Google Presentations Informally in First-Year Writing***Process***

1. Before the class session, Jessica creates one Google presentation and shares it with the class. It includes blank slides for students to use during class.
2. Before class, students are put into groups.
3. In class, students sit with their group and have one assigned slide per group.
4. Depending on the reading, each group has a prompt or activity. For example, Jessica has used this approach for informal work, from having students deliberately apply reading strategies they'd generated as a class to a particular text to brainstorming ideas around a particular topic.
5. Students then work individually on computers but near each other. This way, they are talking and writing and revising at the same time. Throughout this work time, slides evolve and change quickly; students often experiment with formatting and even write questions to each other within the slide.
6. Then, students present their findings to the class (see, for example, Figure 5.1).

**Strategy #3:
Highlights**

1. Pick a section (roughly 2 paragraphs) to work with. Have one person read that section out loud, very slowly.
 <<student group inserts their assigned or chosen section here>>
2. Other group members begin highlighting/underlining important information you want to remember.
3. Discuss your highlighted segments and why you chose to highlight them, and create a master list below:
 - <<students collectively list 3-5 quotes from the text>>
 - <<explanation of why they chose these quotes and how they understand them>>

Figure 5.1 Example of a student-generated slide

Appendix C: Advanced Placement Literature and Composition Multimodal Essay Assignment

Essential Question

Whose Story Gets Told?

Sub-Questions

How Can We Listen to Silenced Voices? To What Extent Are Our Views of the World Shaped *for* Us Through Story?

Objective

Synthesize examples from literature, information from research and ideas from another student relating in some way to the question “Whose Story Gets Told?” by composing a collaborative multimodal essay.

What Is a Multimodal Essay?*

An essay that blends multiple modes.

What Is a Mode?

Mode can be conceived of in many ways. On the most basic level a mode is “how something is done or how it happens” (Princeton University).

Other Definitions and Examples of Modes (from a variety of sources)

1. Modes of Discourse = descriptive, narrative, imaginative, persuasive, expository.
2. Mode = a particular form, variety, or manner.
3. According to The Writers Web, *A List of Important Literary Terms*, the term “mode” can be described in the following way: “An unspecific critical term usually identifying a broad but identifiable literary method, mood, or manner that is not tied exclusively to a particular form or genre. [Some] examples are the satiric mode, the ironic, the comic, the pastoral, and the didactic.” (CB)
4. Other ways to think about mode: letters, journal entries, poems, images, graphs, music, audio recordings, videos, blogs, podcasts, mind-mapping, etc.

Requirements

1. Create a collaborative composition with another AP Lit Student. You are encouraged to use the wikispace to compose and present this composition, but it is not required. You may choose to turn in a hard copy if you wish.
2. Composition must address the essential question or a sub-question (or a question you create that relates to the topic) in some way.
3. Include ALL of the following *blended* in a composition:
 - original words and ideas from each partner
 - passages from *Things Fall Apart* or *Heart of Darkness*
 - researched information from a credible, reliable source (use databases!)
 - visuals—original creation, photographs, art, video, graphs or tables, mind-map, etc.
 - an MLA formatted Works Cited Page for *all* sources

4. Include *at least* two “modes” from the list below *blended* in the composition:

- images
- music
- audio recording
- interview
- graph
- mind map
- symbolic representation
- newspaper article
- original letters or journal entries written
- from the perspective of a character
- researched information
- maps
- comic strip
- storyboard
- advertisements
- Wordle
- another mode you identify

Appendix D: Writing as Participation: Rhetorical Problem-Solving in a New Context Assignment

Overview

In Unit 3, you observed and studied the writing that occurs in particular contexts, considering such aspects as genre, communication, and audience. You explored and analyzed these written conversations and then developed a lengthier, more thorough and thoughtful essay on one textography. Now, in Unit 4, you have the opportunity to repurpose your Unit 3 Project for a specific identified audience in a

nonprint medium of your choice. Your culminating project will depend upon focused writing, detailed analysis, and critical, rhetorical decision making. I am opening the door wide on this unit project: You all have creative control—and I'm excited to see what you come up with—but I will have to first approve your project and then evaluate how well you meet your own goals.

You'll be required to propose your project, to complete a progress update, and to reflect on the process. These three brief assignments will be required for all students, but the individual Unit 4 projects will, I imagine, be quite different. The work in this fast-paced unit asks you to plan, revise, and reflect; to be creative and take risks; and to explore how writing can be represented through different methodologies and modes. You will need to further develop your meta-awareness of your own writing at each stage in order to successfully complete this task.

Your creative contributions to Unit 4 will be presented in digital map form: We will work as a class to develop a Google MyMap that illustrates the writing you've studied at BSU. Mapping your projects in various ways will (re)present all of your hard work, reinforce the notion that writing takes place in a community, foster peer-to-peer collaboration, and create an opportunity for further academic success (more on that later).

Readings

(From custom reader)

Scott McCloud, From "Understanding Genres"

Anne Frances Wysocki, "The Multiple Media of Texts: How Onscreen and Paper Texts Incorporate Words, Images, and Other Media"

Reading Responses

There will be one reading response for this unit, and you may use either/both of the above readings. You'll continue to post your responses to your Reading Journal sub-page off of your personal student page. The rules from Units 1–3 still apply: You have until the start of class (10:30 AM) to post a brief response to the day's reading assignment, you should include a proper MLA citation for the reading as the post's title, and

you should spend at least 150 words *thinking with* the reading. Ask questions, summarize, quote parts that you found confusing or particularly interesting—really get in there and try to make sense of it. These journal entries count toward your participation grade (I will not be evaluating them, but I will sometimes add comments to your page), and I will occasionally use them to trigger class discussions.

In Unit 2, we engaged with challenging reading materials and strengthened our reading strategies in order to become active, critical readers. I expect your reading journals to reflect the strategies we covered in class and through our readings. As always, I encourage you to employ a specific strategy or two as you navigate these texts. You should also make clear connections between the assigned readings and the observations you've made—as well as the texts you've encountered—through your Explorations.

All Explorations must follow MLA conventions and be at least 2 pages in length, typed in Google Docs, shared with me (give me editing privileges), and uploaded to your Assignments page, within a "Unit 4" folder.

Proposal

After we do some brainstorming in class, you'll want to focus on what, exactly, you hope to accomplish by repurposing Unit 3's culminating project. You'll need to identify an audience and to describe the final outcome, as well as which methods will be used to reach that goal. So, you need to propose a Unit 4 Project by addressing the following:

- Clearly state what you think your specific focus will be as a one-sentence statement or question.
- Describe your project—what it will look like, which non-print medium you'll work with, what type of product will best capture your focus.
- Identify your specific, chosen audience for this piece.
- Explain your purpose—why you're writing for this audience, as well as the intended effect.
- List your materials, programs, apps, etc.

- Create a brief timeline, setting yourself small goals for specific steps and dates.
- Brainstorm solutions to any possible difficulties.

Essentially, you need to convince me that this is a viable option—that this project (whatever it may be) is doable and appropriate. Don't worry; I'm easy to convince.

Progress Update

About halfway through the unit, I'll want to know how you're doing. Use this exploration to update me on your work. Please respond to the following prompts:

- What have you accomplished so far and when? Are you following your timeline well?
- What rhetorical decisions have you made? How have you revised your project since the proposal?
- What difficulties did you encounter, and how did you handle them?
- What have you done really well? What are you excited about?
- What more needs to be done, and how will you do it?
- Do you have any questions or concerns?

Reflection

This exploration will be an extended cover letter—or a really extended writer's memo—in which you look back on the work you completed leading up to the final Unit 4 project. Please be thorough and specific, and please answer the following (but feel free to add more thoughts):

- What went really well for you in Unit 4? What are you most proud of? What were some of your best moments in the writing process?
- What did you struggle with? Which difficulties did you face, and were they expected or unexpected? How did you handle them? How did you learn from them?

- What more would you like to do? To write? To know? If you had more time to spend with this project, how would you further revise it? What more would you like to accomplish?

Unit 4 Writing Project

In addition to the three brief assignments described here, each of you will submit a culminating project in a non-print medium of your choice. How you create this project will depend on what it is, and the requirements for this project will depend on your proposal. I will be evaluating your three explorations in relation to your final project, in order to ensure fairness in the midst of creative chaos (everyone will be required to write the same three texts, but the final projects will vary greatly); this means that, basically, I'm evaluating the process more than the product. We will work on a rubric together.

I expect you to take risks, to have fun, and to do a lot of thinking. By the end of the unit, you will have three explorations in your Unit 4 folder on your Assignments page, and you will have submitted/shared/presented your culminating project on our Google MyMap. Your Unit 4 project should be clearly focused and should represent your Unit 3 project somehow; it should utilize the tools of your chosen medium; and it should reflect the plans and revisions that occurred throughout these two weeks. We will spend nearly all of our class time on creating this project; every class day will be a workshop day—workshopping in a community of writers means providing feedback and support and sharing ideas. I expect you to use this time wisely and purposefully.

Course Outcomes

- **Writerly Choices/Rhetorical Awareness:** Producing writing with a clear focus, purpose, and point
- **Meta-Awareness Of Rhetorical Choices:** Articulating rhetorical choices; illustrating your awareness of your relationship to your subject and the context surrounding these choices

- **Processes:** Understanding that writing takes place through recurring processes of invention, revision, editing, and reflection; and in a community of resources and support

Week 11 Unit 4 Schedule

| Date | What's Due | What We're Doing in Class |
|---|--|---|
| Tuesday Nov. 6 | McCloud, "Understanding Genres" Wysocki, "The Multiple Media of Texts [...]" Journal entry | Student Success Stories Exploration 3.1 Proposal Workshop |
| Thursday Nov. 8 | | Workshop |
| Sunday, Nov. 11: Exp. 4.2 Progress Update is due by the end of the day (11:59 PM) | | |

Week 12 Unit 4 Schedule

| Date | What's Due | What We're Doing in Class |
|------------------|------------------------------------|--|
| Tuesday Nov. 13 | Nathan, "Academically Speaking..." | Workshop |
| Thursday Nov. 15 | Complete and final Unit 4 Project | Exp 4.3 Reflection Other activities TBD, pending identification of culminating projects |