



# Constructing learning spaces: What we can learn from studies of informal learning online

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## Abstract

A report from the market research firm Ambient Insight indicated that by 2015, 25 million post-secondary students in the United States could be enrolled in an online course (Adkins, 2011). As a consequence, they argued, we will see a decline in student enrollment in physical classrooms. In fact, the report estimated a five-year decline of 22 percent (from 14.4 million in 2010 to 4.1 million in 2015) in students attending traditional classrooms. Yet, in the face of these projections and despite innovation in educational technologies, there remains a consistent number of academics who are concerned that the quality of online instruction is not equal to face-to-face (f2f) encounters (Allen & Seaman, 2011). It is this question—a question of learning and how to facilitate high quality experiences—that we take up in this article. This question forces us to consider simultaneously: 1) what are the conditions that are necessary for learning to occur in online spaces, and 2) what are the best practices associated with effective learning these environments? To these ends, we focus on the characteristics of digital informal learning environments and on how these environments are constructed rhetorically and primarily discursively via deliberate facilitation strategies focused on encouraging learning.

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A report to the Sloan Consortium prepared by Elaine I. Allen and Jeff Seaman (2011) found that over 6.1 million college students took at least one online course during the fall 2010 term. This was a 20 percent increase from the number reported in 2003, when the organization first started tracking these statistics in higher education (Allen & Seaman, 2003, 2011). Other studies have supported this growing trend across higher education institutions, especially at community colleges (Quan-Haase, 2005; Kim & Bonk, 2006; Annetta, Folta, & Klesath, 2010; Instructional Technology Council, 2012). Neither online learning nor technological innovation is new. Those of us with a sense of history (or who are simply old enough and possessed of good memories) can readily note many parallels to earlier distance learning technologies like educational television and correspondence courses (Miller, 2001b). However, there may be reason to consider the fact that the distribution, penetration, and creativity of computer networks and services make the present historical moment different. A report from the market research firm Ambient Insight indicated that by 2015, 25 million post-secondary students in the United States could be enrolled in an online course (Adkins, 2011).

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As a consequence, they argued, we will see a decline in student enrollment in physical classrooms. In fact, the report estimated a five-year decline of 22 percent (from 14.4 million in 2010 to 4.1 million in 2015) in students attending traditional classrooms. Yet, in the face of these projections and despite innovation in educational technologies, there remains a consistent number of academics who are concerned that the quality of online instruction is not equal to face to face (f2f) encounters (Allen & Seaman, 2011). It is this question—a question of learning and how to facilitate high quality experiences—that we take up in this article. This question forces us to consider simultaneously: 1) what are the conditions that are necessary for learning to occur in online spaces, and 2) what are the best practices associated with effective learning these environments? It is our hope that addressing these questions will reveal what informal online learning can teach us about writing pedagogy and writing instruction.

Having declared our intentions in this way, we situate our argument outside of a writing classroom. We draw from our study of facilitating learning in online museum environments. Here we join the long-standing tradition of research on informal learning environments, particularly museum environments, within *Computers and Composition* scholarship (Morrison, 2011). Palmyre Pierroux and Synne Skjulstad (2011) have argued that more and more, museums turn to online environments to sustain their brand and cultivate their identity. Similarly, Dagny Stuedahl and Ole Smørðal (2011) pointed out that the use of social media in museums can enhance a visitors' experience with exhibits, yielding new, interactive, and participatory learning opportunities. Our study not only builds on these concepts but also focuses more directly on how digital environments and social media can be used as informal learning spaces. Not only that, but we are also interested in describing how these learning spaces are rhetorically constructed through the act of facilitation. In our study, we identified and then tested facilitation techniques that we believed helped construct an environment in which valuable outcomes like learning could happen. These techniques were mostly writing moves that could be taught and learned.

Online environments are always constructed—a claim that is not new to this audience—but our argument focuses on a question that is much less clear: how are (discursively) productive learning environments constructed? Any online learning environment, including classes in which learning to become a better writer is the focus, requires a form of rhetorical work that we call “facilitation” in this piece. In what follows, we focus on learning with respect to the (digital) environment itself and on how that environment is constructed (rhetorically and primarily discursively).

## 1. Characteristics of informal learning environments

Most of the attention in education research has focused on the study of formal learning environments (i.e., classrooms). Within these settings, the classroom becomes the locus where knowledge is built and learning happens. Regardless of whether the pedagogical strategies are student-centered or teacher-centered, the approach to learning focuses on a scaffolded, planned activity connected to curricular goals and outcomes. Formal classrooms, however, are not the only settings where people learn. People—including our students, of course—learn in a variety of informal locales that frame their everyday experiences (e.g., home, science museum, nature center, coffee shop). In fact, as John H. Falk and Lynn D. Dierking (2010) have pointed out, most of what and how we learn happens outside of formal learning contexts, yet we still lack adequate understandings of what learning looks like in informal spaces and what support is necessary to promote learning. For the purposes of this article, we define *informal learning* as an approach to learning that is not typically classroom-based, relatively unstructured, and places the control of learning (e.g., needs and interests) in the hands of the learner (see Schauble, Leinhardt, & Martin, 1997; Falk & Dierking, 2002).

Our definition is useful to distinguishing between formal and informal learning environments, but it is not sufficient. It is also necessary to understand informal learning by attending to the learners who seek these environments. Informal learners often approach learning situations with commitments, relationships, motivations, and tasks that are very different from those present in classrooms. For example, individuals often learn about science outside of the classroom to satisfy short-term personal needs rather than long-term cultural or civic duties, or because they want to succeed in school (Falk, Storksdieck, & Dierking, 2007, p. 455). The diverse and varied needs and motivations of learners, then, drive the ways in which learning environments are understood and constructed, and so it is the nature of learners themselves that allow us to make formal/informal distinctions. According to a report by the Committee on Learning Science in Informal Environments (Bell, Lewenstein, Shouse, & Feder, 2009), there are six interrelated strands that best describe what learning can look like in informal settings: learners 1) are motivated to learn because the nature of informal learning is driven primarily by learners' interests and excitement; 2) readily generate, understand and adopt concepts related to science; 3) make sense of the world through scientific inquiry practices (i.e., testing, manipulating, predicting,

questioning); 4) see science as a way of knowing and reflection on their own learning processes; 5) collaboratively participate in scientific activities and learning moments with others by using scientific language and tools; and finally, 6) view themselves as science learners and develop identities as contributors to science. It is true that these characteristics describe learning and learners in formal environments as well, but the particular challenge of informal learning is how to design exhibits and programs that promote learning experiences that scale across a typically wide range of learner identities, motivations, and abilities in addition to contexts that often look and function differently than classrooms.

## 2. Informal learning environments in computers and writing research and pedagogy

Our field has taken up issues typically associated with informal learning. This was most extensively addressed in a special issue of *Computers and Composition* on distance education, which did much work toward highlighting the challenges posed to our pedagogies and furthered the discussions of what constitutes good online communication (Peterson & Savenye, 2001). More recently, Kate Pantelides (2012) analyzed how informal online compositions impacted the ways in which writing center consultants and clients engage with writing conventions. Her comprehensive study presented consultants with strategies for approaching informal digital compositions and offered room for writing teachers to rethink their pedagogical assumptions with regards to emerging digital genres. The concern for informal environments is also represented by work focused on digital pedagogy attached to physical classrooms, such as traditional course management systems (e.g., Angel, Blackboard, Desire2Learn), blogs, and wikis (Barton, 2005; Car, Morrison, Cox, & Deacon, 2007; Carter & Arroyo, 2011; Strenski, Feagin, & Singer, 2005). While scholars in computers and writing share some concerns with researchers interested in informal learning, much of the work in our field shares a focus on these spaces as an extension of physical classroom environments (Vie, 2008; Sorapure, 2010; Maranto & Barton, 2010; Clark, 2010). There are no studies that we are aware of that focus on these spaces as learning environments with their own characteristics, uses, and affordances distinct from formal educational contexts. There is, however, a rich history of studies that look at digital environments in relation to physical classroom spaces. Stephanie Vie (2008), for example, argued that composition instructors should pay attention to social networking sites and incorporate them into the classroom as a means of helping students attain critical media literacy in relation to formal learning goals and contexts. Since social networking spaces are widely popular among college students, their incorporation into formal classrooms achieve the goals of bridging students' extracurricular interests with the pedagogical purposes of compositionists seeking to teach writing that is necessary for workplaces in the 21st century (see also Hart-Davidson, Cushman, Grabill, DeVoss, & Porter, 2005). Still, a tension arises when we see these sites in relation to traditional classroom spaces. In light of this, Vie (2008) wrote that there is a very real possibility that the inclusion of social networking sites can potentially "topple traditional classroom hierarchies of power in unpredictable ways" as they invert the panoptic relationships between instructors and students due to not only students' adept digital literacies and instructors' lack thereof, but also divergent norms of participation as students scale from the traditional classroom to Web 2.0 spaces (Vie, 2008, p. 19). Kristie S. Fleckenstein (2005) similarly offered a view of social media environments in relation to formal classrooms through a "layering of spaces" metaphor, writing, "Just as multiple windows enable users to inhabit multiple virtual sites simultaneously, virtual locations are always layered with multiple physical locations: computer setup, body, room, and building. Physical place is inextricable from virtual place" (p. 163). Therefore, it is still common to understand any number of digital spaces as structured by what is appropriate in the physical world and formal educational environments.

Our field has most clearly taken up questions of environment or space (though not learning) in many of the inquiries focused on identity. Gina Maranto and Matthew D. Barton (2010) raised the potential implications for using Facebook and MySpace in the classroom through a theoretical discussion of how these spaces present ethical dilemmas for teachers and students as they attempt to navigate public and private divides in constructing their identities and social relationships. Both sites "privilege a type of discourse based on the construction and representation of personal and shared identities," which some individuals see as threat because they transgress "traditional cultural boundaries between private and public spheres, not only endangering individual users but also the surrounding culture" (Maranto & Barton, 2010, p. 43). This is heightened by the lack of rules that would govern how users appropriately act or represent themselves along the personal-private divide. Fleckenstein (2005) pointed to how creation of community is hindered by acts of online identity construction because the spatial differences and participants' "facelessness" reduce accountability to where "users blind themselves to the impact of their online actions, perceiving themselves and others as invisible" (p. 152). Other scholars in the computers and writing community have signaled that digital communication often

heightens the sense that identity must be built through direct discursive or visual interaction because interlocutors often have no pre-existing ideas about the reputation or character of those with whom they are speaking or writing (Sujo de Montes, Oran, & Willis, 2002; deWinter & Vie, 2008). Early, significant work in this area was done by Blair & Takayoshi, 1999 on gender and identity. Randall Woodland (1999) and Scott DeWitt (1997) both documented the ways in which LGBT individuals make use of cyberspace to come out and construct identity (see also Alexander, 1997). Much of this work has focused on first textual and then more diversely mediated performances to make claims with respect to identity (especially the visual: see Tardy, 2005; Barrios, 2004). There has also been much research into the shifting identities of students and teachers to that of facilitators. Susan Miller (2001a) in theorizing distance education issued a warning in that “writing teachers may appropriately fear for their powerful, crafted identities” as “distance classes in writing may be driven by syllabi, not by loyalty to teachers” (p. 327). Rena Palloff and Keith Pratt’s (2007) inquiry into collaborative learning and the construction of online learning communities touched on the emotional, psychological, and physical issues instructors experience as they move their pedagogies to online environments and attempt to establish a presence in those forums. In most examples of this work, language is an indicator of social or cultural identities that participants carry with them. But critical to this work is the focus on how identities are performed in online spaces. Our scholarship has clearly established the importance of identity to writing and learning to write in digital environments. Work in informal learning only deepens the importance of identity to learning. We would like to begin the process of putting these issues—identity, learning, writing—in relationship to each other in the interest of understanding how to construct productive informal learning environments. We turn now to a case in which we attempted to facilitate social media experiences to create learning environments. The facilitation in question is a type of rhetorical work that can be identified (as a matter of research) and taught (as a matter of good online teaching practice).

### 3. Case: Experimenth race & Experimenth identity

The Facilitation Project is a research study designed to investigate facilitation styles and their outcomes in two distinct but representative museum environments. The first, Science Buzz at Science Museum of Minnesota (SMM), is a popular website known as an exemplary platform for exploring current science. This is an example of a museum developing and maintaining its own tools and digital platforms [<http://www.sciencebuzz.org/>]. The second environment is the more distributed use of social software at the North Carolina Museum of Life and Science (MLS). Instead of creating learning platforms that are hosted internally, MLS is experimenting with building learning communities where people are already gathering, such as YouTube, Flickr, and Facebook. The Facilitation Project builds on our work in a prior research study in which we identified facilitation in social media environments as likely very powerful with regard to shaping productive conversations and identified some distinct facilitation styles as important. In the facilitation study, we have been deliberate in our design and facilitation practices, identifying and using replicable facilitation styles and attempting to identify outcomes associated with those styles.

Our research design focused on using particular facilitation styles to try to create a learning environment. We bounded the study in time through the use of a month-long set of activities created by MLS called Experimenth. Experimenth is a series of month-long participatory and inquiry-based sharing experiments that brings scientists and citizens together to use data and observation to make meaning and co-create knowledge [<http://science.experimenth.com/>]. Those who choose to participate in Experimenth take part in the scientific process and learn to become more critically engaged in their communities. The goals of Experimenth are to increase the public’s exposure to science, develop familiarity with discussing scientific topics in public forums, and have fun learning.

Our focus here is on an Experimenth we conducted in November of 2011, which we ran at both institutions, called “Experimenth: Race” at MLS and “Experimenth: Identity” at the SMM. With “Race,” participants were asked to engage in discussions and activities that revolved around issues of race, whereas “Identity” asked broader questions about identity (e.g., age, gender, sexuality, religion, etc). Experimenth: Race/Identity was an ideal setting to understand how facilitation occurs in online spaces. With different activities—each with its own level of engagement—Experimenth Race/Identity was a way for participants to become more aware of and critically engage with issues regarding race and identity. More importantly, Experimenth gave them an easy platform to share and connect with others and interrogate their own pre-existing knowledge, which ultimately led to moments of change (or learning moments).

#### 4. The sites of study: Facebook and Science Buzz

Because the Facilitation project relies heavily on the comparison between the two digital environments, it is necessary to point out how internal platforms (e.g., Science Buzz blog) and external platforms (in this case, Facebook) differ in how they sustain, maintain, and engage the community of users and the conversations that happen. The communities that exist at both sites are distinct as both serve different purposes. Science Buzz is designed to promote science learning. The internally-hosted blog provides users a “platform to engage current, public science, and in so doing, fulfills the mission of the SMM to serve as a resource for learning science” (Grabill & Pigg, 2012, p. 100). Facebook is not intended to be a learning environment—at least from a designer’s standpoint. Still, there are affordances to Facebook that make such uses viable, as we have pointed out through Vie’s (2008) scholarship.

The participatory nature of sites like Facebook is one aspect of what Henry Jenkins (2006) has termed *media convergence*: that is, spaces where multiple media intersect, collide, and interact in unpredictable ways (pp. 259–260). Through this media convergence, we start to see rich bodies of discourse taking shape in Facebook, making it a useful site for “instructors who wish to talk with students about audience, discourse communities, intellectual property, and the tensions between public and private writing” (Vie, 2008, p. 21). These teachable moments will come at students from a familiar setting, as “students do not view computers as disconnected from their day-to-day activities but rather as an assumed part of their everyday lives” (Oblinger, 2003, p. 12). Additionally, Facebook acts as a “medium for faculty, staff, even administrators to be in contact with students, and maybe provide a little adult guidance. Individually, one faculty Facebooker might not have much influence, but a collective presence could raise the tone and dial down the antics on this increasingly public student venue” (Lemuel, 2006, para. 26). Indeed, Facebook did prove viable as a learning platform, and both environments were productive venues to explore how technologies can help support learning, particularly when facilitated.

#### 5. Description of Experiment activities

During Experiment Race and Experiment Identity, multiple activities ran simultaneously. Participants could choose which activities they wanted to be involved in. The results of every activity were shared by participants either via Buzz or Facebook, and it was these conversations that were facilitated. Table 1 provides the names and a brief description of each Experiment activity.

#### 6. Description of facilitation moves

While medium is an important consideration, we should also attend to how our practices within a space help to design an experience. Interactions in social media environments occur primarily through writing. Of course, there are exceptions to this rule (e.g., Flickr or Instagram; YouTube or Vimeo); however, our intention here is to focus on writing as the activity that most deeply shaped these informal learning experiences through facilitation practices.

Facilitation occurs when facilitators (or other participants) make moves that create an environment of safety and inquiry that allow learning to take place. Based on our prior work and informal learning research and theory, we worked with the following facilitation moves in this project: 1) provoking others to think differently about a subject; 2) constructing connections between ideas and people; 3) providing a framework whereby participants could develop ideas they presented through their claim making (suggesting follow-up actions); (4) making explicit requests to connect with a participant or have them further develop their ideas for the community; 5) introducing new ideas that allowed participants to evaluate pre-existing knowledge and potentially alter their understanding; 6) offering statements or requests that changed the focus of conversations; or 7) positively affirming a person’s account of their actions or identity. These facilitative interactions, when used deliberately and consistently, became ways to design a learning experience.

#### 7. Our approach to data analysis

Most of the data in this study was writing, and so we developed an approach to discourse analysis that might allow us to characterize the rhetorical work of facilitation (and other moves) and examine the discourse for indicators of learning. Discourse analysis is commonly used to understand interactions between speakers and writers in a variety

Table 1  
Experiment Race/Identity Activities.

Name of Activity	Description	
Confessional	Participants in this activity were asked to submit (either publicly or anonymously) a confession they had about race or race issues. This could be along the lines of “I’m uncomfortable with the thought of dating someone of another race” or “I realized that when I think of ‘American’ I only think of white people.” This confessional would then be discussed amongst participants.	MLS
Personal Timeline/My How You’ve Grown	Participants were asked to share photographs from various time periods in their life. After they uploaded their photo, they were asked to make comments about how something in that photo helped shape their racial identity at that time.	MLS/SMM
Shutterbug	In this activity, participants were asked to snap photos of anything that, in their opinion, portrayed ethnicity or seemed to be contrary to racial stereotypes (e.g., art, advertising, publications). They were also asked to make inquiries and comments about the posts of others.	MLS, SMM
Smart, Hot, Honest or Not	Participants uploaded photographs of themselves, which were then morphed into making them look like someone of a different race or ethnicity using a special computer software. As their morphed photo was shared, other participants were asked to rate if the person in the morphed photo looked smart, hot, honest, or not.	MLS, SMM
Cultural Plunge	This one-time activity asked participants to do something that they felt took them to a different culture (culture here was usually defined as race). They were then asked to report back to the group on their thoughts and experiences.	MLS, SMM
News Watchdog	The idea was for each participant to monitor their local news (picking their own source(s)) and post links of interesting race-related articles to the group page—hopefully about once a day. They were then asked to make comments about how they saw this article relating to race issues and why they found it relevant.	MLS, SMM
30 Days, 30 Questions	For this activity, the designated facilitator would ask one multiple-answer question a day that related to issues of race and identity. Participants would then pose the question to their friends on Facebook (or a subset of them) and get answers. The answers were tallied and, occasionally, made into visualizations.	MLS, SMM
Mistaken ID	Participants here were asked to note when they were a victim, observer or guilty of mistaken identity (e.g., mistaking someone’s religious, gender, sexual, or ethnic identity) and write about it on an external website that would post it anonymously to the Mistaken Identity Buzz blog. They were then encouraged to check back on the blog post and see how other participants related (or not) to their experience.	SMM

of environments (Fairclough, 1992; van Dijk, 1997; Wood & Kroger, 2000; Schiffrin, Tannen, & Hamilton, 2001; Bazerman & Prior, 2004; Gee, 2005). We believe that understanding discourse is essential for surfacing indicators of learning in digital spaces and that analyzing these moments and the conceptual and technical approaches that make them happen is vital for informing how we teach writing in informal online environments. Therefore, we designed a tool that would allow us to make use of discourse to visualize facilitation, learning, and instances where both are connected.

Theoretically, our approach to learning drew from the report referenced earlier by the National Research Council’s Committee on Learning Science in Informal Environments (Bell, Lewenstein, Shouse, & Feder, 2009). The authors of the LSIE report argued for a “strands of science learning” approach to understanding learning in informal environments that focuses on issues of experience, motivation, the use of concepts, making arguments, reflection, participation, and identity. These strands essentially define what learners do when they are learning, which best represent “the more abstract, conceptual, and reflective aspects of science learning” (Bell, Lewenstein, Shouse, & Feder, 2009, p. 295). We used this report to develop our approach to data analysis to allow us to make learning visible by marking participants’ identity performances and leveraging of knowledge.

### 7.1. The rhetorical work of facilitation

Our project focused on trying to generate learning moments within discussions of race by consciously utilizing the facilitation moves described previously. Indeed, we found that it is possible to point to specific facilitation moves as

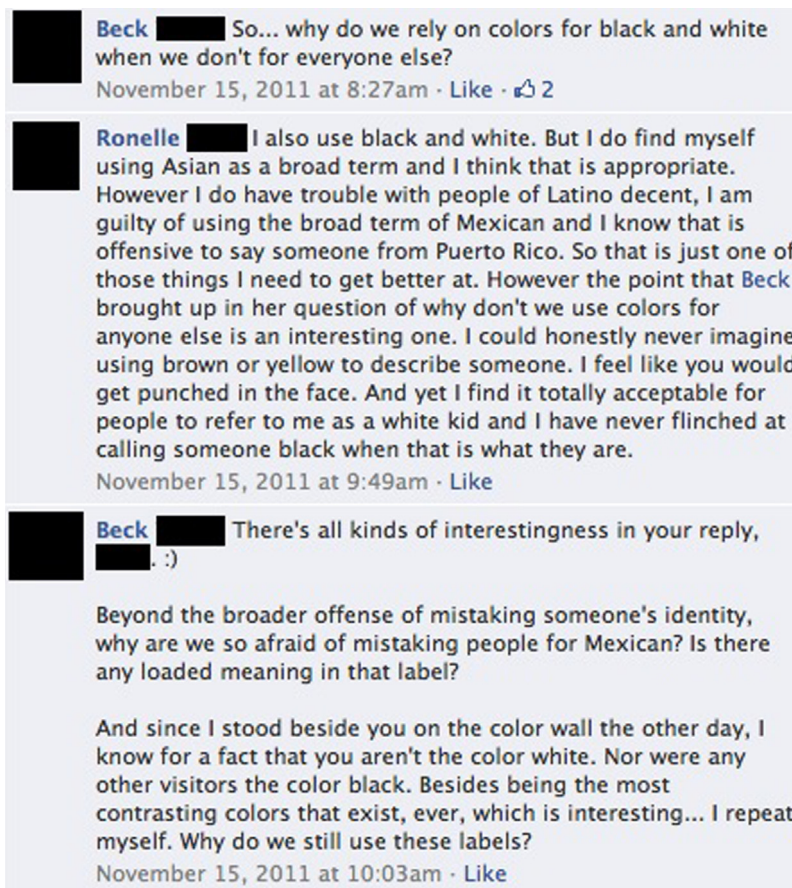


Figure 1. Experimenth: Race (“confessional”) thread 1.

having agency with regard to moments of change. That is, we were able to facilitate learning. Among the facilitation moves available to us, invitations and to a lesser degree constructing connections between people and ideas were meaningful. What we would like to do now, then, is to walk through a number of examples that illustrate the rhetorical work of facilitation as a way to build a learning environment.

Consider, first, the following excerpt of data from the Confessional activity in Experimenth: Race, which used Facebook as platform (Figure 1). The conversation began with Natasha asking group members what terminology they used (White vs. Caucasian or Black vs. African American) when referring to a person’s race. Participants responded by offering their own understanding and use of terminology. This conversation proceeded in this manner until Beck, a facilitator, raised an important question that no one in the discussion had raised:

Beck is an experienced facilitator. The act of facilitating comes naturally to her and she often easily recognizes when to step in to guide discussion and when to let conversations evolve on their own. In this particular instance, Beck recognized an important moment in the conversation that might lead to learning among participants in the thread. She engaged the conversation through a connecting move by asking, “Why do we rely on the colors black and white when we don’t for everyone else?” As simple as the move might have seemed, it changed the direction of the conversation and produced discourse in which we identified a number of indicators of learning. For instance, Ronelle made a series of claims where she acknowledged that she was guilty of using the term “Mexican” to refer to Hispanic people. This culminated in her saying, “So that is just one of those things I need to get better at.” In our coding scheme, a move such as this, in which a participant acknowledges a change in thinking, was marked to indicate a moment of learning. This change in how she planned to think and act in the future likely would not have occurred had Beck not changed the conversation. Thereafter, Beck followed with other facilitative moves, such as demonstrating respect for Ronelle’s perspective (“interestingness”), and, more importantly, seeking to connect more deeply with Ronelle’s ideas as she

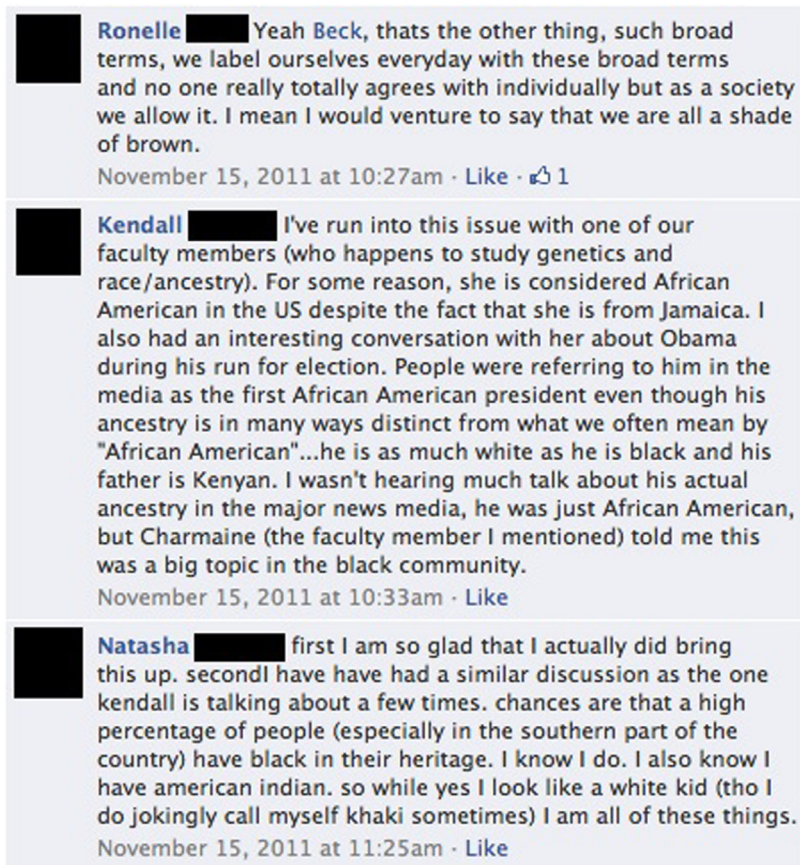


Figure 2. Experimenth: Race (“confessional”) thread 2.

asked, “Beyond the broader offense of mistaking someone’s identity, why are we so afraid of mistaking people for Mexican? Is there any loaded meaning in that label?” This resulted in more claim-making where Ronelle was able to develop her position further (Figure 2).

This act of facilitation by Beck also sparked another moment of change with a participant named Kendall (Figure 3). Kendall opened with a claim that allowed her to identify with Natasha and other Experimenth participants who wrote prior to her having written, “Maybe time to stop this?” This is very similar to Ronelle in that Kendall had acquired new information from the discussion that provided her with the opportunity to change how she acted in the future. Yet, the moment of change did not stop with the post. Having been influenced to think differently, Kendall was motivated to continue learning more. She ventured off Facebook and looked up the definition of *racism* in the dictionary. Based upon her reading, she added to the discussion:

to me it suggests that identifying someone based on their race isn’t “racist” as long as you aren’t doing it or implying by it that their race explains something about them it doesn’t, or makes them inferior or superior. Actually, interesting to me that the number 1 definition of racism says involving the idea that your own race is superior.

Although she acknowledged that her definition of race was “hatred or intolerance of another race or races,” the definitions that she did not have before ultimately changed her understanding of a complex issue.

Kendall’s comment is a good example of a repeated dynamic in Experimenth activity conversations. The view we have provided here is deliberately granular because we think the moves themselves matter a great deal. We need to see them as researchers—we want you to see them as colleagues—and the facilitators themselves needed to see, learn, and write in these ways as well (more on this to follow). It is the accumulation of these moves and their outcomes that



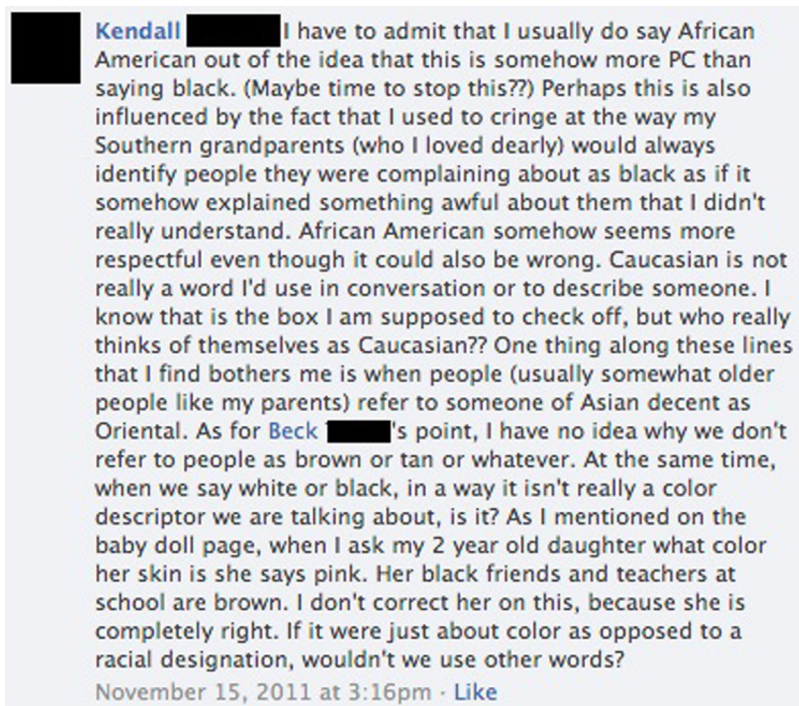


Figure 3. Experimenth: Race (“confessional”) thread 3.

ultimately mattered because in the aggregate, this rhetorical work made a culture and created an environment in which it was safe to talk about race, to risk learning, and to engage. Writing is a design practice.

Distinct facilitation moves were not the only factors in constructing these learning environments. Important as well was a dynamic that we came to understand as “Experimenth itself.” Not only did we find that certain facilitative moves led to outcomes of learning, but also we saw a larger phenomena occur wherein Experimenth itself had agency in creating moments of learning as well. But what do we mean when we talk about Experimenth—or any set of learning activities—having agency? When we look at the data, it was clear that behavior was shaped by a set of “things” associated with the shared experience that people were having. Things such as the community associated with Experimenth, (both inherited or created), the technology used to support such an event like Experimenth (Facebook and Science Buzz), and the culture/norms that were enacted by Experimenth are all important elements to consider when discussing how something like Experimenth becomes important to outcomes like learning. We believe there are four aspects of Experimenth that have been most meaningful in facilitating learning:

#### 7.1.1. Activities that create heightened awareness

Some activities within Experimenth asked participants to make observations about race and identity issues in the world around them. Being involved in such activities increased some participants’ awareness about certain issues causing them to see things they never had before (“I had never noticed this, but...”) or causing them to see things in a new way (“I never realized how racist this sign was until now.”). For these participants, their learning was sparked by completing the assignments of Experimenth.

#### 7.1.2. Activities that ask people to share (pictures, links, articles, etc.)

Other activities within Experimenth asked people to share from their daily lives (such as Confessional, Hot or Not, and News Watchdog). Participants who were active in sharing also reported a high number of change codes, particularly with regards to self-reflection (“Looking back on this picture, I realized I’ve always loved tight spaces.”). The act of sharing was a crucial part of their learning process.



Figure 4. Experimonth: Race (“confessional”) thread 4.

### 7.1.3. Technology and cultures that allow for meaningful conversations to happen

While we don't spend time in this piece on technologies themselves, the selection, design, and anticipated use of the technologies in our project was a source of sustained thought and conversation. Technologies matter, of course, and Experimonth, in providing participants with 1) the technological “space” to talk (i.e., Science Buzz or Facebook) and 2) a culture of sharing (i.e., specific prompts and social norms that allowed for sharing), played a direct role in causing many of these conversations to happen.

### 7.1.4. Experimonth facilitators

Facilitation obviously played a key role in many of the observed moments of change. Experimonth was designed to be facilitated. Such conscious interventions by facilitators are difficult to separate from the overall experience of Experimonth. It is worth mentioning, however, that the role we have identified here is “facilitator” and not “teacher,” and this has everything to do with our focus on informal learning. As we discuss in the conclusion, we believe that those of us in formal learning situations and institutions have a few things to learn from those who practice the art of informal learning.

Consider the following excerpt of data from Confessional. The conversation began with Ronelle, who shared a video with the group from the musical “Avenue Q.” The video was of a song titled, “Everybody’s A Little Racist.” Beck followed-up by suggesting that participants “spend 3 minutes and 50 seconds of [their] time” on the video. Most of the responses to the video were a mix of initial emotive responses (“I laughed so hard at multiple points during this. Wow.”). Two participants connected viewing the video to previous racial experiences. For example, one participant recounted an episode with her mother:

I said something very similar to my mom recently.. Something like “I’m racist, I just choose to be aware of it and am ready to apologize when needed.” She gave me a look and kind of reaffirmed that she did not consider herself racist.

An interesting moment in the thread occurs when Beck asked Ronelle how the “treatment of humor” in the video related to an image posted in the Shutterbug activity (Figure 4). The photo was designed to be a humorous reinterpretation of the “We’re a Culture, Not a Costume” campaign despite its cultural insensitivity.

It is Beck’s facilitative move that put Ronelle in the moment to reflect upon not only the video’s appearance across activities, but also the role of Experimonth in changing the way she understood and acted regarding issues of race. Specifically, she wrote:

I think that in doing this Experimonth it has led us to notice this or be more hyper aware of the things and images around us. It has sparked conversations and led me to ask questions about myself, to identify the things about myself that may be racist or that I may take offense to.

Moments like this point to the importance of how we design learning activities within digital spaces. While we design these experiences to encourage learning within sites, learning cannot be contained solely within a space like Facebook. In fact, what makes Experimonth useful to participants like Ronelle is that it became less of a set of activities and more of a lens through which they viewed the world. Here, Experimonth assumed the role of a facilitator as it provided a space where participants could develop a sense of critical awareness that was very similar to what might arise through interactions with participants within an informal learning environment like Facebook.

## 8. Conclusion

We started this article with two questions in mind: 1) what are the conditions that are necessary for learning to occur in online spaces, and 2) what are the best practices associated with effective learning these environments? Questions such as these are among many important questions to ask given the current dynamics in educational technologies. If Massive Open Online Courses (MOOCs) offered by education ventures such as Coursera, edX, and Udacity are the future, then we have to reassess our understanding of e-learning and strategies for facilitating learning in online environments. Nevertheless, the increase in the prevalence of these online experiences only underscores the concern for designing quality learning experiences. Designing high quality experiences necessitates that we inquire as to the conditions necessary for learning to occur in online spaces and what are the best practices associated with effective learning in these environments. We believe that our discussion of facilitation during Experimonth is useful for deepening our understanding of how informal digital spaces can serve as robust learning environments. Moreover, our data from Experimonth offers key considerations for the computers and writing community.

First, we must recognize that the rhetorical work of facilitation is what constructs digital environments as learning spaces. Technologies, structure, and culture matter a great deal, but central to these dynamics is the rhetorical work of constructing a culture of sharing, which leads to learning. We have to understand the pre-existing architecture of any platform and carefully weigh the affordances and consequences. This will affect how participants interact with each other. While our data suggest that technologies can act as facilitators, what makes experiences like Experimonth meaningful is how we made use of the digital infrastructure to promote a level *groupness* where participants engaged in sharing experiences and objects, making their ideas public, and were attentive and accountable to each other. We believe that facilitation is what made these conditions possible. Second, we believe that facilitation can be seen, taught, and learned. Through our study—and specifically our analytical practices—we saw that facilitative moves could be easily identified within the discourse of a digital space (invitations, constructions of connections, etc.). More importantly, these facilitative moves could be indexed and operationalized to draw specific learning outcomes in many different settings.

Third, it might, therefore, be possible to learn how to construct learning environments within our own formal learning programs from informal learning projects. It is important to note that we see the relationship between formal and informal learning as one that is nuanced and dialogic. That is to say, it is possible and even desirable to use formal learning techniques in informal learning settings because they both rely on each other and work toward the same goal. However, we focus here on the usefulness of informal learning spaces as sites where conversations are rhetorically constructed through facilitation, which is acutely distinct from teaching. Through our research, we found

that cultivating and using specific facilitative moves was key in engendering moments of learning and change (the richness of the environments we studied for those interested in writing to learn has not been lost on us either). Using online spaces, and especially those with Web 2.0 sensibilities, as a lens to construct learning environments can also help to bridge the gap or diffuse the power dynamics between student and teacher, which is where facilitation in informal environment thrives and differs from formal learning spaces. It dismantles the deficit model of learning that can sometimes color formal learning spaces by creating an open discourse of inquiry where facilitators are engaged in the same learning tasks as participants. And finally, how we perform our teacherly roles and how we design experiences so that others adopt a teacher's persona in informal online environments matter. That rhetorical work is what we have called *facilitation* here, and it is rhetorical work that can be identified, learned, and practiced.

It is through the role of the facilitators, both those designated by the online environment and those that naturally become facilitators through the nature of discussion, that spaces like Facebook transform from a social networking site to a setting where learning can take place. Maranto and Barton further contended that “teachers should not try to colonize these spaces, but rather should enact pedagogical practices and theoretical approaches that employ them as a means of teaching students about identity construction and social networking” (2010, p. 38). By focusing less on the affordances and constraints of the sites themselves as social networking tools and focusing more on the discourse happening within these sites, we can start to trace and see how learning moments and moments of change are possible through Web 2.0 technologies. As Maranto and Barton wrote about Terry Mayes and Chris Fowler (2006), we also see “online social spaces as extending and facilitating classroom discourse, and increasing the likelihood that students will learn not only from teachers and texts but also from one another” (p. 39). This idea sits at the heart of the facilitation project and our emphasis on the role of facilitation.

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