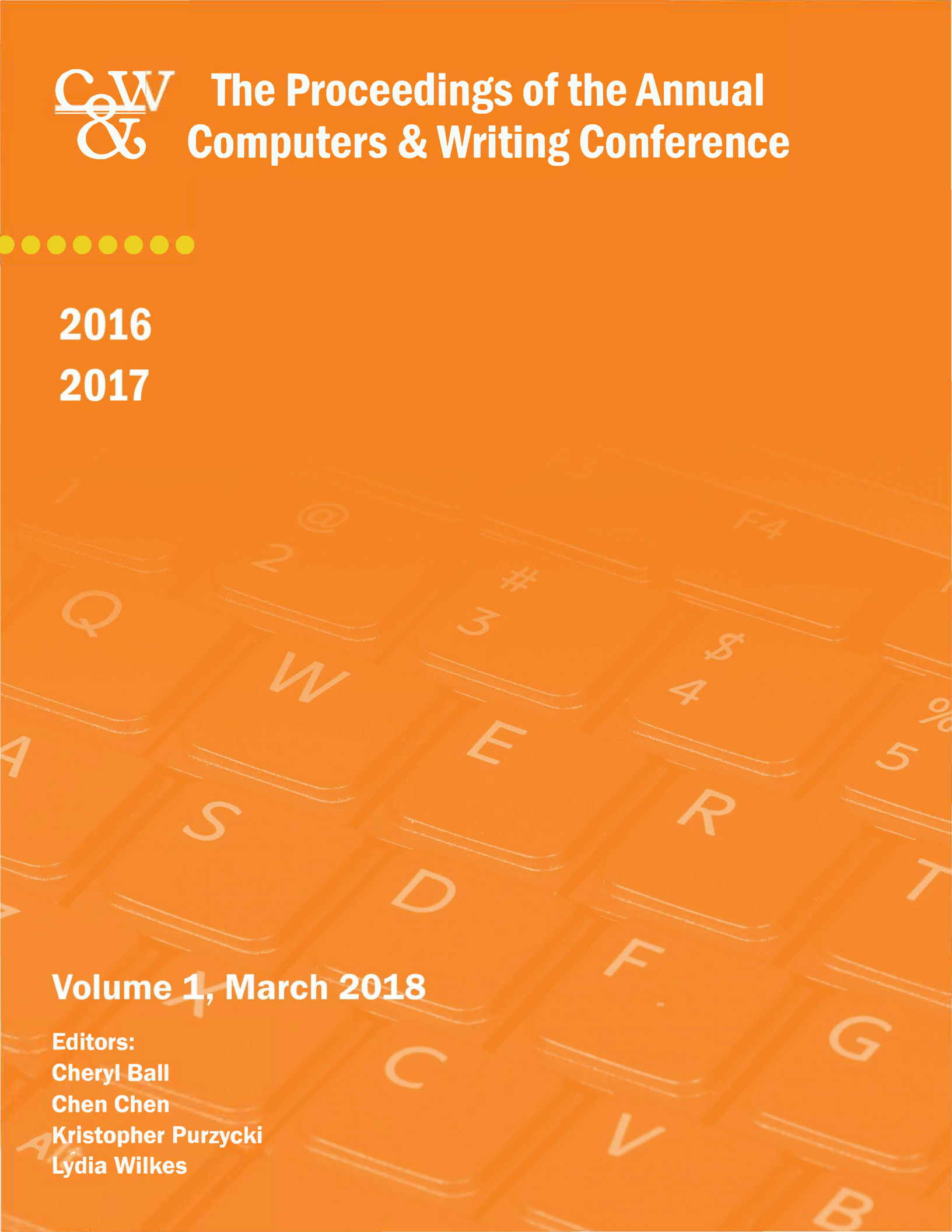
# The Proceedings of the Annual Computers & Writing Conference

2016
2017



## Volume 1, March 2018

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# The Proceedings of the Annual Computers and Writing Conference
## Volume 1, 2016 & 2017

Edited by Cheryl E. Ball, Chen Chen,
Kristopher Purzycki, and Lydia Wilkes

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## Series Information

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# The Proceedings of the Annual Computers and Writing Conference

## Volume 1, 2016 & 2017

# Town Hall 1: Recovering C&W Pasts for the Future

*Kristine Blair, Cynthia Selfe, Gail Hawisher, Mike Palmquist, Janice Walker, Will Hochman, Daniel Anderson, Michael Day, Kathleen Yancey, Traci Gardner, Joe Moxley, Nick Carbone, and Dickie Selfe, with Cheryl Ball.*

In the last few years, we have begun to see some of the field's founding scholars retire, which has put us in a bit of a reflective mood. Such reflection prompts this Town Hall that—in the spirit of Bruce McComisky's recent collection on the "Microhistories of Rhetoric and Composition"—aims to recollect brief moments in the history of computers and composition by the people who initiated this field. These moments have been crucial to the formation of the discipline, either by scholarly means, community building, or through lore. We invited the audience to listen to these brief stories during the opening Town Hall in 2016 (at St. John Fisher University) and to participate with their own memories of the field's important micro-histories. Our goal was to collect these narratives and publish them as a reference for the field, ensuring a remembrance and honoring of our historical roots for future generations of Computer & Writing scholars. We have transcribed and lightly edited the presenters' presentations for reading in an interview-style below. This Town Hall could not have been made possible with the help of the C&W Organizing Committee, led by Dr. Wendi Sierra, and this Town Hall's advisory group: Kristin Arola, Scott DeWitt, and Jason Palmeri.

**Cheryl Ball:** Okay, so first up, we have Kris Blair.

**Kristine Blair:** Good morning, everybody. I think I might have stayed a little bit too long at karaoke last night, so forgive me if I get a bit hoarse from having sung "Sweet Caroline" at 11:30 or so last night. But that's always part of the narrative, right? My first Computers and Writing conference was in 1992 in Indianapolis, and I have been coming back, obviously, for more than twenty years. I think it is that spirit of fun and collegiality that keeps bringing me back and keeps allowing so many of us to bring that next generation back with us. I have to say that my most fun Computers and Writings were El Paso in 1995, Detroit in 2007, Davis in 2009, and that is obviously in part because of the social events!

More seriously, I want to focus on several micro-historical moments in C&W's history, and I have a bit of script so that I don't have one of those John Bayer moments where I start crying, because these are really emotional types of stories, I think, and Cheryl alluded to that in her introduction. The ones that I want to address include a sense of the field's inclusiveness and the role of computers and writing as a feminist field. I'll give a couple examples of that.

In 1994, when I was a very new assistant professor with Gail Hawisher—it has been so wonderful to see you at this conference, Gail—Patricia Sullivan invited me to participate in an online research group. Its goals were to find a space to discuss online power relationships for academic women representing different career-levels, from graduate students to full professors. I was honored to be among this research group—I was a very, newly minted PhD—and particularly because it led to Gail and Pat's publication *Women on the Networks: Searching for e-Spaces of Their Own*, and the collection *Feminism in Composition: In Other Words*. As much as this project was meant to be inclusive, that doesn't mean there weren't others who didn't feel they could share all aspects of their life stories, both personal and professional. Sometimes, those were based on particular types of cultural markers that went beyond academics. This was most evident in the response by Joanne Addison and Susan Hilligoss, both of whom came out on the Web and felt compelled to write about that process in the collection that Pamela Takayoshi and I edited, *Feminist Cyberscapes*, in 1999. I mention this because their chapter then went on to win the Ellen Nold Award for Best Article.

I'm also focusing on these moments because, in many ways, I think it represents the spirit of the computers and writing community and that it celebrates diverse perspectives on the field, and also that we should not presume that the sense of community we might feel as long timers (notice I did not say old timers) is felt by those representing diverse academic and cultural identities. I felt this most keenly at the

2013 C&W hosted by Jill Morris, who was willing to bring forth these concerns about gender and identity politics, as were others, in ways that led to new discussions, both online and off, to not presume that our unique experience of the conference and the field represents everyone's experience of it.

I think that that type of articulation is important to foster inclusive spaces going forward, as Gail and Pat did then, as Gail and Cindy [Selfe] and Dickie [Selfe] and Janice [Walker] and Michael [Day] and Cheryl [Ball] and so many other people in this room have done. That goal enables new people such as Traci Gardner and the Graduate Research Network (GRN) and the role of various caucuses to ensure that that commitment to inclusion and social justice is more than just passive rhetoric but is actually an active reality. We welcome those voices to this field and want to help mentor them so that they can sense the state of the profession. Thanks so much.

**Cynthia Selfe:** So I heard my whole career about how computers compare to print text. I've heard things like, "things disappear from computers and they don't disappear when they're in printed form." I've heard it all. "It doesn't count on computers, where it does count in books"—I've heard that. I want to question that a little bit today. We've also, I guess, heard that computers don't have to do with humans. And books, especially printed books, apparently do have humanity.

Okay, so I've heard all these things. I want to sit here today, and I want to look at an artifact and examine those claims. This is my artifact. [Cindy holds up a falling-to-pieces book.] This is the history book: *Computers and the Teaching of Writing in American Higher Education, 1979-1994* (Hawisher, LeBlanc, Moran, & Selfe, 1996). Jason [Palmeri] is smiling because he probably used it. It's tattered, and it usually sits on my shelf with a rubber band around it so I don't lose it. It has bite marks from the dog. The pages look something like this . . . [she thumbs through and pages fall out].

When I look at this history book, 1979–1994, it does remind me that we haven't done a history project in our field since 1994. That's 22 years! When we did this history book, we had to go back, and we had to get people to go into their closets and get stuff out of their closet, the floor of their closet, to get the artifacts. Here we are, yet again, 22 years later, and nobody has done a history of this community. I think that's important. In fact, it was, for me, doing this book that solidified an understanding of our field and who we were as a group, where we were coming from, where we were going. I don't want this group to lose history, even though we generally look very forward—we're always looking forward. I want another history book—or not a book. I don't want a book—a history project, a multimodal history project, and I think we have to start collecting those artifacts right away.

The other thing I would say is this book contains a lot of things, but the most important part of the book is something that nobody ever notices. I'll hold it up for you. I'm not sure you can see it, but in the back cover of this book are all the names of the people that we had worked with for those first years when we were working in the field. We probably didn't get it all right. We probably left some people out. We probably put some people in. But the impulse was the right impulse. The impulse was to look for the people and the technologies, including I might add the technology of the book. The technology is not the field. The technology is not part of the field. It's the people, you out there.

So do it again in the next few years, and do a project like this going forward. Thank you.

**Gail Hawisher:** I just want to add an addendum to what Cindy was saying. When we were doing this book, our print book, she said to me, "Gail, wouldn't it be nice if we had this hard copy—a book with hardback covers on it—and it's going to be blue, and we're going to have gold going across it. It'll be a lasting book." Look at it now.

To start where Cindy left off, all of us have really worked to build this field. I don't want to short what I'm going to talk about now, but the memory of the making of a discipline—that sounds very grand. Collaboratively. And the most important word there is collaboratively, because as Kris noted and Cindy noted, it's all of us looking into the future.

In those early years, when Cindy and I would talk about building a discipline—we were really using those grand words—we were talking about what we were going to do next and so forth. We did note that other disciplines are marked by journals, conferences, research and theoretical underpinnings, book series,

books, and articles. All of them important to the field. They're not always marked by an attention to pedagogy, and this is what I love about our field, computers and writing, which also is in rhetoric and composition and in writing studies.

Somebody asked me yesterday why our field is so collaborative. I think it does have a lot to do with the fact that we share a pedagogy. Our research might be different, and our theories, but our pedagogy, we share. As Cheryl has already mentioned, the C&W conference, which is now thirty-two years old—that was really one of the first entities of the making of this discipline. That was back in 1984.

The rumblings of this new discipline were all occurring as early as the 1970s, with Hugh Burns with his 1970 dissertation *Stimulating Invention in English Composition through Computer-Assisted Instruction* and Ellen Nold's 1975 article *Fear and Trembling: The Humanist Approaches the Computer*. You won't be surprised to know that the first two awards that *Computers and Composition* gave out were the best dissertation award, the Hugh Burns award, and the Ellen Nold best article award, as Kris has mentioned. Kris will be giving out a total of five awards tonight from *Computers and Composition*.

I want to tell you a short memory of mine. It goes back to the beginning of these awards, which was in 1990. I was just on the faculty of Purdue University, which Kathi [Yancey] will remember when I joined the faculty there. I was going to my first rhetoric conference, and I found myself so excited to be doing that. I had founded those C&C awards with great excitement, and Janice Lauer looked at me, and she said "Gail," and she sighed. Then she said, "You know, we really usually give out awards to people who are no longer with us. This is highly unusual." She sighed again. But fortunately, she was a great fan of both Hugh and Ellen, and she said, "Well, maybe it will work out."

We're glad to say it *did* work out. I'm going to stop now. But I'd love to hear from you at some time what directions you think the field should be heading in now to continue building this discipline of ours. Thank you.

**Mike Palmquist:** I will never again be on a program following all these people.

**Cynthia Selfe:** That's true.

**Mike Palmquist:** It's really an honor to be here. I have a visual aid. I'm going to talk about this book. It's an old book. I love books. Most of you who know me know that I love books. They're wonderful things. So, I'm going to talk about this one. [Mike holds up his copy of Bill Wresch's collection, *The Computer in Composition Instruction*.] I'm going to pass it out. If someone could make sure I get it back…Cindy autographed it. She's the only person that is here that's in that book. That book is really cool, and Cindy just signed it. She's the only person at the conference who's in that book, and it gives a sense of the history of all this. It's really wonderful.

**Audience Member:** What is the year?

**Mike Palmquist:** 1984.

I tell my friends that I'm an accidental professor. In 1985, my wife decided to go to graduate school at a place I'd never heard of—Carnegie Mellon University—and I tagged along. That was good—and not just for my marriage. It was because of my wife that I applied to CMU's doctoral program. And it was because of the people I met there that I became part of the computers and writing community.

In my first semester at CMU, Chris Neuwirth's seminar on computers and composition introduced me to people who would become a central part of my academic life. Chris used Bill Wresch's 1984 collection, *The Computer in Composition Instruction: A Writer's Tool*, to explore key ideas in the field. This was a time when word processing software was in its infancy (well before Gail Hawisher had figured it all out); when helping writers generate ideas and review and comment on drafts was still getting started; and when we were just beginning to recognize the pedagogical implications of computer networks.

Thanks to a CMU program that brought leading scholars to campus each year, I was able to spend time with some of the people who had contributed to Wresch's book—in particular, Helen Schwartz. The

same program brought Nancy Kaplan and Trent Batson to CMU. And through them I met other members of the C&W community. Trent Batson and his ENFI Project [Electronic Networks for Interaction] put me in contact with Terry Collins, Geoff Sirc, and Chip Bruce, among others. Through Nancy Kaplan, I met Stuart Moulthrop and Michael Joyce and Jay David Bolter, who were among the early leaders in hypertext.

And there were happy accidents. My advisor asked me to drive Carol Berkenkotter and her colleague, Cindy Selfe, to the Penn State Conference on Rhetoric and Composition. Cindy was yet another contributor to the Wresch collection. I recall a long conversation with Cindy about flaming and student anonymity, and I recall missing a few turns and ending up somewhere near West Virginia before we finally found our way to Happy Valley. At that point, I was sure my career was over.

While I was still a graduate student, I began participating in the discussions taking place on Bitnet. Inevitably, I started arguing with people. I recall some exchanges with Fred Kemp about the value of showing every character as you typed it during chat. Fred was kind to me about my foolishness. Through Fred, I met still more members of the C&W community, among them Hugh Burns (still another contributor to the Wresch book), Joyce Locke Carter, Paul Taylor, Wayne Butler, and John Slatin.

When I arrived at Colorado State University in 1990, I had the opportunity to work with more of the people who were in Wresch's book: Kate Kiefer (who helped establish the fifth C [a special interest group on computers at the Conference on College Composition and Communication] and co-founded *Computers and Composition* with Cindy), Charles Smith, and Dawn and Ray Rodrigues. They mentored me as I worked toward tenure, and they collaborated with me on articles, books, and research projects.

When my son was young and things were going well, he often said, "I'm a lucky guy." I'll say the same thing today. I'm lucky my wife brought me to graduate school. I'm lucky I worked with Chris Neuwirth. I'm lucky to have read Bill Wresch's book and got to know so many of the people in it. C&W is a great community, and I'm lucky to be a part of it.

**Cheryl Ball:** I invited Fred Kemp to come rabble-rouse, but he couldn't make it.

**Janice Walker:** Like Mike, I'm also an accidental professor. The book on our history that Cindy was talking about ended in 1994. My first foray into academia *began* in 1994, when at the age of 43, I finished my bachelor's degree and started graduate school. Even though I'm of the age—or older—than the first generation of C&W scholars, I guess I'm actually a second generation-er.

My first professional conference was my first year in the MA program. In the spring of '95, I went to CCCC. I had already met the computers and writing folks online, in MOOs. It seemed that at CCCC, though, that all of our presentations were in the basement of the conference. The following year, I didn't go to El Paso's C&W, and that's something I have always regretted.

**Cheryl Ball:** Me too.

**Cynthia Selfe:** You missed the mechanical bull!

**Janice Walker:** No, that was 2000. I got that one. Gail and Cindy riding a mechanical bull!

The following year, I went back to CCCC, and I signed up for the research network forum because I had gotten hammered by all this computer stuff. I was teaching in a computer classroom—the *only* computer classroom they had at University of South Florida—and I was using MOOs in the classroom. I decided I was going to do this really cool project in my first-year writing classroom. I took it to the research network forum as a peace act. They're looking at me like, so, what's a MOO? What's a listserv? Why would anyone want to use computers in writing classrooms?

A few months later, I found myself at my first ever computers and writing conference. That was '96. I never looked back. I didn't have to explain any of these things. I had found a home where I could talk about the things that I was interested in. I could talk with people who were my heroes and heroines in the field. All of the people that I had been reading about and talking to online—they knew what I was talking

about, and I could learn from them. Many of us remember people of that time—Nick Carbone, Todd Taylor—a lot of people who are stars in this field were still graduate students at the same time I was, even if they were a little younger than me.

We were often alone on our campuses, with no one that we could actually talk to, other than my major professor who directed my dissertation and sent me to learn about computers and writing my first semester in graduate school. But other than that, who could we really talk to about our projects?

We started thinking that there ought to be something like the Research Network Forum [at CCCC] at the Computers and Writing conference, something that would provide a space for those of us doing work in this field to get the feedback that we needed from knowledgeable peers. Guess what that was? The Graduate Research Network [that Janice founded], starting in 2000 at the Dallas–Fort Worth conference.

This year [2016] was our 17th GRN. We had about eighty people. That is not our record; we've had over one hundred at some conferences. We're still going strong. We've got a whole new generation of C&Wers who have come through; some started as grad students at GRN and they're now full professors.

**Cynthia Selfe:** And you've given away how many thousands of dollars?

**Janice Walker:** The travel grant fund started in 2004, when I had asked for some money to help pay for grants, I had extra. I gave it away. Cindy said, why don't we do something bigger to raise money for the next year, which was in Hawaii[1]. We began the travel grant fund and give away $8,000–10,000 every year to help graduate students. We're still going strong.

**Will Hochman:** Hi, my name's Will Hochman[2], and I'm just going to say a few quick things. In fact, you can use my extra time, Cheryl.

I want to say that I came to this community via Megabyte University, loving email. I still love email. I know listservs are a little bit out of date, but that's where I've lived my life.

I put a poem in *Computers and Composition* somewhere in the '90s—it's hard to remember, because I was hanging out [with Quentin?] so much. This is called *Sharkboy@Hombre*, and I'd just like to read it for Mike Palmquist, Nick Carbone, and Jonathan Alexander, three amigos who've helped me start a life in the community. This is my home. I'm home. I'm happy, and you're my family. I love you.

That's a good way to get people to like a poem.

*I probably live best*
*On e-mail these days*
*I don't live wonderfully*
*Otherwise, I just feel*
*Victimized by my liver*
*(pollution)*
*And not doing enough*
*(beyond couch and screen)*
*Except I do go on*
*Appearing neatly at work*
*On working dawns*
*Each and every week*
*Almost swimmingly*

*Like my father,*
*I'm not really the hombre*

[1] Here's the original auction website for the 2004 GRN Travel Grants, which includes some items of note that have become part of the field's lore: http://www.u.arizona.edu/~kimmehea/cw/index.htm

[2] Will was a mensch and a mentor for all who knew him. He passed in the summer of 2017.

*With technical hobbies…*
*And like my brother,*
*I'm not always enough the sea lover…*
*Yet like my mother,*
*I swim with my heart anyway*
*Why not cry my family*
*Electric into your own*
*Oceanic reply?*
*Maybe I'm more than just some*
*Sharkboy ranching fishing lines,*
*Maybe I'm someone to chum with e-mail*
*For those ripe online remarks*
*To stake your sick posts into*
*With fences like nets to follow*

The last thing I'm going to read—I think we all found our way into the computers and writing world because we love literature and we love writing. Sometimes, we don't recognize that well enough. To me, I'll always be both and everything.

The first presentation I made at Computers and Writing was *I Sing the Poetic Electure* or *I Sing the Electure Poetic,* I still don't remember, but I was ripping off Walt Whitman left and right—still do, as much as I can. I'd like to read his poem *A Noiseless, Patient Spider*:

*A noiseless patient spider,*
*I mark'd where on a little promontory it stood isolated,*
*Mark'd how to explore the vacant vast surrounding,*
*It launch'd forth filament, filament, filament, out of itself,*
*Ever unreeling them, ever tirelessly speeding them.*

*And you O my soul where you stand,*
*Surrounded, detached, in measureless oceans of space,*
*Ceaselessly musing, venturing, throwing, seeking the spheres to connect them,*
*Till the bridge you will need be form'd, till the ductile anchor hold,*
*Till the gossamer thread you fling catch somewhere, O my soul.*

**Daniel Anderson:** I'm so honored to be among all of these wonderful, wonderful scholars and people.

I'm going to talk about a post-human moment that happened before we decided there was post-humanism. It was 1993, and I'm going to start with an artifact as well, which is a NeXT computer. If any of you are unfamiliar with the early UNIX machine called the NeXT computer, there was one that sat in the basement at the University of Texas. Here's the post-human moment: It had a name. The name was odd.en.utexas.edu. I'll always remember that URL or that domain name.

Two things are significant about it. One, the "en." The English Department had a subdomain at the University of Texas, probably along with "cs," computer science, and those were probably the only two entities at this university that were doing this stuff. That's a really important lesson for us. We are leaders, not followers, when it comes to digital humanism. That is something we always need to pay attention to and make sure that we're aware of that. The second thing is that the computer sat in this really great space—which was a basement, which is kind of an alternative space—and in that space, it welcomed newcomers.

I was a graduate student thinking I was going to do literary criticism. People said, "Come try this other stuff, and see what happens." It's a bottom-up discipline; it's not a top-down discipline. Always has been bottom-up. I encourage all of you to—even today as you go into these sessions—click on the website. Volunteer to review a session. Post something. Publish your proceedings. Whatever you want to do. You are the ones who are going to drive. It's the bottom-up way that this system works.

The other thing about that space was that it was a wonderful pivot space, because it was looking backwards and forwards. In that space, there was a kind of flux moment of a writing system that was wrapping up in some ways as local networks were transitioning to a global network model. That needs to be in our history. There was a crucial pivoting there, and what was happening at that pivot was a transition. Even though we're about people-building, about ideas, we're also about things. Tool-building is a very, very strong strand in our DNA. It's ongoing.

Now, I know in this room there are four or five major, really interesting tool-building projects. If something isn't working for what we need, pedagogically or scholarly, we make it. If we can't make it, we find someone who can help us. We have tool-building history that is so valuable to our field. Everyone's already been named, people I would like to reference.

The last part—and I appreciate following Will—was that the "en" and the "odd" had a literary reference in there as well. We used that NeXT server and started to build on the Web. We figured out we could add a comment form. What a novel thing! The Web is a flat thing. All you do is read. It's passive. Suddenly, you write a script and you can put something back into it and make a transaction happen. That was really valuable. On that server, we also started playing around with MUDs, which were unbelievably strange to me. I had no idea what this was, but someone said, "Oh, it's like creative writing." I never really followed through with that, but I worked on it for a little while. The idea was that you could try anything that you want. You should try everything so you know what people are talking about.

So we worked on those things, and the impetus was to embrace creative production. I think that's something our field has always valued. At the '93 Computers and Writing conference, I did a little presentation about MUDs. I spoke creatively. Afterword, someone came up to me and said, "You should do more of that," which was really encouraging. Instead of saying "Why are you off-base? Why aren't you citing x, y, or z?" they said "Go for it. Do more of that." And that was John Slatin[3].

**Michael Day:** I'm going to take you back to 1993, as well. Thanks to Dan for setting me up with all of that.

The hinge moment of historical significance to the community has two parts. They're both in 1993, when we really learned to play online in text-based environments, especially when we learned how to use play to inform our work. In short, 1993 was a hinged moment. It was a Kathi-Yancey-We-Have-A-Moment in which we learned to use luddicity to achieve lucidity.

The first part is excerpted from the first ever C&W online conference in 1993, when Bill Condon and others chaired the conference. He invited us to let the group know how we felt in virtual group environments. And feel we did. We often took recourse in metaphors of navigating physical space such as haunted houses or exploring caves while roped together. Witness what some of us said in discovering our online playfulness:

> Eric Crump: Feel a little awkward in this system. Expected that if this were a non-virtual parlor, I'd probably knock over a vase or track mud on the rug.
>
> Michael Day: I feel disoriented. I'm not knocking over vases or tracking mud on the carpet of this virtual parlor so much as trying all the wrong doors with keys that wouldn't fit anyway. And sure, I'm following Eric and following Bob Child, and I hope we're all roped together.
>
> Chris Hult: I'm having so much fun in this conference that my colleagues are beginning to worry about my sanity. Wish I could just drop everything and play in your virtual parlor all day.

[3] John Slatin was a pioneer in Web accessibility. He passed in 2008. See https://www.legacy.com/obituaries/statesman/obituary.aspx?page=lifestory&pid=106462227

> Bob Child: Yikes. Follow me at your own risk. I'm the one who overloaded the network Saturday night and got us all dumped out.
>
> Ildana Hamilton: I too am feeling more comfortable than I did, but I want to wander away from the virtual parlor analogy. I sometimes feel like a spelunker whose lamp flickers or goes out, leaving me feeling somewhat in the dark.
>
> Bill Condon: Help! I've fallen into a virtual space, and I can't get out! We co-chairs can't believe how complicated this has turned out to be. A warning to Eric Crump, next year's chair.
>
> Eric Crump: Warning taken. My head's spinning already just thinking about it, but of course, I'll have the advantage of your experience and precedence.
>
> Mike Morgan: Okay Eric and Jeff, let's not keep it to ourselves. Let's share. What the heck is a MediaMOO? Some kind of multimedia cow? A bovine cousin of apple's agent?
>
> Glenn Mayer: Initial reaction? Hmm. I'm a bit worried to see that Eric Crump had some trouble with this system. I've lurked on a few lists, but I've followed Eric's instructions to some interesting places, including MOO land. I thought I was going to talk to him yesterday in the TR lounge, but the virtual Eric turned out to be a duck.
>
> Eric Crump: Hey Glenn, that duck is me! And we could all be in big trouble here because I'm following Bob Child around, and you're following me around, and if Bob makes some really wrong move, we could all go tumbling off some virtual cliff. Don't trip, Bob!

This is also the year that we discovered real-time online academic discussion in IRC and MOO. After the C&W '93 online events that led to the Tuesday Café and the TechRhet Barn, we embraced our lucid and playful sides and profited from that as a discipline in countless articles and books and our teaching and much more. Eric Crump and Becky Rickly published *It's Fun to Have Fun, but You Have to Know How: How Cavorting on the Net Will Save the Academy*. Becky is sort of channeling Eric here and saying that

> the most liberating aspect of the net is that it provides a place for us to "explore the intertwingling of seriousness and play for the benefit of both. Between the punning, the parodies, the verse, the gossip are interspersed serious business." Richard Lanham said that "interactivity *compromises* solemnity," and that's something that folks still admire in print (as well as the we who live on the net) love to consider—and value. Eric's final observations were that the "playful, semi-reverent banter" found on lists like CREWRT-L, on MOOs and IRC, and on newsgroups "just might save academia from its own ponderous weight. Without the net, the academy will sink into oblivion."

And although MediaMOO, which lived under my desk at school for 15 years, is decommissioned, playing on the net has kept us alive—as has co-mentoring, collaborating, intertwingling, and being lucid has defined us as technorhetoricians.

One parting shout-out: http://computersandwriting.org/memorabilia. It's there, okay? The history's there. Don't forget it[4].

**Kathleen Yancey:** Thanks for including me in this illustrious group. I don't plead guilty to the age. Also, you'll see some things here, the '90s, and pivots among them.

[4] Sadly, it's not there anymore. C&W.org went offline some time in 2017 and has yet to be recovered.

In 1994, the National Council of Teachers of English (NCTE) hosted three conferences on portfolios. One in Baltimore with Peter Elbow focusing on print, one in Scottsdale, Arizona, focusing on Writing Across the Curriculum (WAC) with Maryann Smith and Bill Condon, and one in Indianapolis focusing on electronic portfolios with keynoters Gail Hawisher and Cindy Selfe. The good news was people actually came, and they had something to talk about; this was 22 years ago, so that was not a small thing.

Cindy and Gail were kind enough to invite me to guest-edit an issue of *Computers and Composition* focusing on electronic portfolios, that word defined by Alan Purves, a prior president of NCTE who, in fact, died the year the issue came out. He said,

> A portfolio is a hypertext. It comprises a number of texts or artifact spaces created and arranged by the author. In education, the author is usually the student. The student created a network among the artifacts. The student seeks to have the portfolio represent her, but (or and) viewers can rearrange the artifacts, make different connections, and comment on one or more of the artifacts or the ensemble. They may make a different web.

The table of contents for that issue included—and in this list here you will hear many micro-historical things, some that have already been mentioned today:

- Purves's lead article, "Electronic Portfolios";
- Tim Meyers, "From Page to Screen and Back: Portfolios, Data Lists, and the Transition from Screen to Classroom";
- Becky Howard, "Memorandum to Myself: Maxims for the Online Portfolio";
- Kathleen Fischer, "Down the Yellow-Chip Road: Hypertext Portfolios in Oz";
- Jo Campbell, "Electronic Portfolios: A Five-Year History," which was about an elementary school, and all the portfolios were housed on a CD;
- Cheryl Forbes, "Co-writing, Overwriting, and Overriding in Portfolio Land Online";
- Beverly Wall and Robert Peltier, "'Going Public' with Electronic Portfolios: Audience, Community, and the Terms of Student Ownership";
- Steve Watson, "World Wide Web Authoring in the Portfolio-Assessed, (Inter)Networked Composition Course";
- Brian Huot, "Computers and Assessment: Understanding Two Technologies";
- Pam Takayoshi, "The Shape of Electronic Writing: Evaluating and Assessing Computer-Assisted Writing Processes and Products," and one of the smart things she said was that the draft was an antiquated idea the minute she started writing, which seems obvious but nobody had actually said it before;
- and then my closing, which was called "Electronic Portfolio's Shifting Paradigms," in which I made six observations that I think are still true today. That speaks to the ability of the field to not only look backward, but to look forward.

I would suggest that those six observations speak to the astounding changes that we've not only witnessed, but also participated in during the last 20 years:

1. Together portfolios and the electronic are enacting paradigmatic shifts in literacy.
2. Just as new writing processes and texts are being developed, so too are new reading processes, processes that, again, are not yet understood or narrated or articulated.
3. In the electronic portfolio, the role of the expert is being widened and expertise is being shared.
4. In the electronic portfolio, we see a continued focus on authentic assessment.
5. Because of the electronic portfolio, writers and readers are taking on new roles and developing new identities.
6. Working in the electronic medium, we are being shaped in ways no one fully understands.

Thank you.

**Cheryl Ball:** Lisa Gerrard couldn't make it in person, so she sent a video that I'll put on Twitter later, if I can get the audio working. Traci's up next.

**Traci Gardner:** I have this belief that—at least if you're of a certain age—when you tried to use computers with your class, you had to break a rule or do something sneaky. So, you caused trouble. And I'm going to talk about the Troublemaker Award.

When I was appointed chair of 7Cs, the CCCC Committee on Computers, Composition, and Communication, in 1999, I began work on implementing a suggestion from Marcy Bauman to give Fred Kemp an award to recognize his work. At the time, our field had the *Computers and Composition* Hugh Burns Dissertation Award, and we had the Ellen Nold Best Article Award, but we didn't have anything that honored the body of work of anybody in our field. I wrote a draft of guidelines for what became the Technology Innovator Award, though that name was not our first choice.

Many committee members were in favor of Technology Pioneer Award, but I had gotten it in my mind—and maybe it's true—that everybody referred to pioneers and their wives, pioneers and their families, or just pioneer woman or pioneer women. I was not having any of that. They thought I was crazy, but I was like, NO. So, we chose the Technology Exemplar Award.

The CCCC liaison at the time about turned green when she saw that. Her eyes popped out of her head, and she said, "You *cannot* use that name." The problem was that they were concerned that if we had an exemplar award, it would be confused with the CCCC Exemplar Award, and then of course all of our profession would have just collapsed. Heaven forbid that two things have the same or similar names.

We worked some more, and we finally came up with the current name, the Technology Innovator Award, but I've always called it the Troublemaker Award. If you read the description of the award, you will find both references to pioneers and troublemakers in that description.

Once we had the name, I thought, "Okay. We're good now." Except for the problem was I was brand new and didn't know what I was doing. I didn't realize that there were actually guidelines out there that I was supposed to follow. I had sort of just bounced this idea. I think I turned it in for my report for what we had done that year. We've done this, and this, and we're giving an award. I finally turned something in, and it turned out that that wasn't complete either. In particular, I hadn't bothered to include a budget, because I thought, I'm just doing all the work myself. There is no money that's necessary. I was just going to pay for the plaque out of my own money, and everything was going to be good.

That year, I also instituted giving the host for C&W a plaque, because I had seen that done at CCCC, and I was like, we need to step up our game. The host needs to be recognized with a plaque for what they've done. Yeah, that didn't have a budget either.

Finally, after a while—I was really stubborn—and a lot of revisions and a lot of emails back-and-forth between our committee members and folks at CCCC, I had what was probably the most awkward phone call of my life with the CCCC chair at the time, Victor Villanueva. I was terrified of him. At one point in the phone call, I remember that he was like, "Okay. This is doable," and I was like, "…but we didn't really follow the rules. Are you sure this is okay?" He was like, "I can make this decision."

The award got approved, fortunately, because Victor is a kind man, and I was just terrified for no reason. In May 1999 at Computers and Writing in Rapid City, I surprised Fred Kemp with the inaugural award.

The 7Cs Technology Innovator Award is now in its eighteenth year of honoring colleagues who are innovators with technology in the classroom or, as I always like to call them, troublemakers. I think it's fitting that the creation of the award is actually a tale of causing a lot of trouble.

**Joe Moxley:** Well, being here at this moment is a reality check. I've been in the discipline since 1984, undergraduate school. It's just…how did that happen? For those of you who just got here, it's going to be over in a second.

One thing I'd like to say is that this is the best conference because of the community. It's bottom-up, go for it, try it, be innovative. I mean, that's just the spirit of this community. But it's not completely bottom-up, because people like Cindy and Gail and others who've followed them, like Kathi, have created a space that is very nurturing and very loving. Janice was a student of mine, I'm proud to say, and we were in a graduate class where she had an idea for a citation system [*The Columbia Guide to Online Style*], so she went to the conference and came back and said, "They're adopting it!"

This space here…When you go to CCCC, you bump around, and it's like being in an aircraft carrier. You don't know where you are or where you're supposed to be. The point I wanted to make, following up on the idea of being a pioneer...

**Traci Gardner:** You're a man…

**Joe Moxley:** Ha, I *am* a man, but I grew up in Utah, so the idea of being a pioneer is a little bit problematic.

The thing I wanted to comment on is that people talk having outcomes and needing parameters, but I really think that there's a spirit of creativity and openness and challenge that characterizes this field. I go back to when I was out of graduate school and wrote a book about creative writing pedagogy. I went to dinner with Michael Spooner and Cindy. And she's like, "Hey, this computers and composition is going to get big." That might be. And she said, "We need a journal." And I thought, whoa. That may be better than my creative writing pedagogy project. I don't think she knew that it would become this.

Jimmy Wales was in St. Pete. I talked to Jimmy Wales before Wikipedia was Wikipedia. He was saying, "I got a server, and I'm going to pitch this open source project," but it wasn't called open-source. "I wonder if we can have an encyclopedia," he said. I don't think he knew what it was going to be. Ed Fox, who created The Networked Digital Library of Theses and Dissertations (NDLTD), had a real passion for accelerating knowledge. He felt like grad students spent a lot of time building literature reviews and no one read them. So he created the NTLTD as an alternative to Bell & Howell [one of the various names for what is now ProQuest]. I don't think he really realized what that would become. Simon Pockley had the first viral dissertation [in 1996], and it created global discussions of IRB and ethnographic practices because he had 2 million reads[5]. This was in the way back.

I remember when I first saw the Internet—oh my God!— I was in the College of Business, and there was this thing called the Internet. I unfortunately didn't buy stock, but I saw this idea. I mean, there was this coffee pot in CERN, and you could see if the coffee was hot. What a great invention! I always loved coffee. I knew this thing would be good.

That thing about being open—you will learn from your graduate students. [Timer buzzes.] Oh, am I out of time? That's all.

**Nick Carbone:** I don't have a moment, but I have a theme. You've heard some of this theme already from people's presentations. My theme is graduate students. Graduate students, and the role that graduate students have had in the conference and in the community of ours.

The most obvious one, for a lot of us, is *Kairos*. It was founded by graduate students. The masthead on the first issue was graduate students: Mick Doherty, Elizabeth Pass, Mike Salvo, Greg Siering—who is now a leader in teaching in technology centers—Corey Wick, Jason Teague, and Amy Hanson founded a journal that is still going 20 years hence. It was one of the most important journals in the field because it was the first embrace, in a consistent and loving way—and by loving, I mean the editorial process—where the process isn't to gate keep; it's to open gates. The creation of webtexts. You see web technology is changing with the journal too.

The other thing we saw when Michael Day was talking about the MOOs. That was a graduate student workshop that Eric and Becky led where we talked about IRC. We left that workshop, and we went right into MediaMoo, with two graduate students, Greg Siering and Tari Fanderclai, hosting Tuesday Cafés in the MOO. In three years, it kept us together every Tuesday night with ongoing discussions that often were reflecting what was going on in emails[6].

Then there was Eric Crump. Eric Crump was a graduate student who left academia full time and came to journalism. He sustains the TechRhet list now. He keeps our community going with the TechRhet list. He founded *RhetNet*, which was a magazine experiment and is now archived at the WAC Clearinghouse.

[5] See http://www.duckdigital.net/FOD/FOD0837.html for Pockley's dissertation, *Flight of Ducks*.

[6] For more on Tuesday Café's, see http://kairos.technorhetoric.net/1.2/coverweb/Cogdill/gotuesday.html

He and Mick and others in those magazines were experimenting with new forms of article writing and publication that were natively indirect, riffing off email correspondence, setting up discussions that were archived and innovative, and created all this room for experimentation.

Then hosting a conference: Rich Rice was a graduate student when he co-hosted—and I can tell you, he did most of the work, with Linda Hanson. I remember we (from Bedford) flew the programs out in boxes, and I drove them to Rich's house, and he had his colleagues all sitting there. We were stuffing the programs into the bags. He was up all night making it happen. Then Eric Crump hosted in '94—first grad student to host. No, he wasn't. When it was in University of Texas, it was co-hosted by Fred Kemp, John Slatin, and then these two graduate students, Joyce Locke Carter and Wayne Butler. Graduate students. The other nice thing about the conference—when it was in Stanford in 2005, it wasn't hosted by a faculty member; it was hosted by Corrinne Arraez, who is an academic technology specialist.

That idea that you don't have to be at the top of the game to be as important to the community is good. And so at GRN every year, we have this really good stuff come in—really good stuff, so you guys are doing a great job. And as a professional graduate student who is ABD, let me say, keep it up!

**Dickie Selfe:** This is a wonderful community. Everybody loves each other. Blahblahblah. [Laughter.] I get to go last, after all these people? Geeze.

It doesn't happen by itself. That's my main thing. A welcoming community is that way because people work behind the scenes often, and I just want to encourage people to continue doing that. There is a lot of great work that we don't even realize is happening.

This is a picture of DMAC, which is Digital Media and Composition and has been at The Ohio State University for 10 years. [Dickie shows a picture of DMAC participants.] Just finished the other day. CIWIC [Computers in Writing-Intensive Classrooms], which is its predecessor back at Michigan Tech, went on for many years—30 years, right? Every year, anywhere from fifteen to forty people would come to these places and stay for two weeks. They would not just get their feet wet; they'd get up to their knees in theory and praxis and pedagogy and lots of nurturing.

That's not the end-all. That's just one example of many kinds of experiences that we create as a community for other people so that they don't just hear about us; they come in and they leave fully charged…at least for the next week… to go out and do really good work and creative work. It's a very creative group.

I want to challenge everybody who's coming up—mostly this will be people who are mid-career—to think about their own kinds of events that they can hold so people can come and really get invested in a certain area. I had a couple of things listed…but, at any rate, I did a little bit with K–12 teachers. It could be with gaming. It could be with coding. It could be with any number of things, and a lot of people are already doing that kind of stuff. We need to make it clear and visible that people are doing that work, and we need to do more creative work that way.

Second, I worked for ten years to do the Digital Pedagogy Poster sessions at CCCC, and it wasn't just me. Doug Eyman and I worked for the last many years and were leading the charge for a Computer Connection at the DPP to get CCCC to continue doing it. It's a struggle. You have to keep working with people; there's a new chair every year, and you have to convince them that this is a good thing, and you have to get everything lined up. Then you go through your own review process. So, it's a lot of work with an institution that isn't in and of itself naturally inclined to do work that shows our projects in their best light. I think digital presentation is the way we need to do it.

That has a long history in itself. I don't know when we started lobbying to try to get computers at CCCC, but it was a long time ago, and a lot of people put a lot of energy into it. We had a couple of presidents that had pushed it, and they still couldn't get it done. Finally, it happened, and the last two or three people who came through there were wildly supportive of our work. That's going to continue. We have great people: Stephen McElroy, Moe Folk, and Catherine Bridgeman are going to take this stuff up, and they're going to take it forward.

But that's not the only institution we need to push ourselves into. We need to go to other conferences that you hold dear, and we need to do the background work—work with the institutional people that set up those conferences—and try to make our work doable at those places.

I want you to get out there and do it.

**Cheryl Ball:** We have one minute left, and I apologize that we did not have time for discussion. I know that you will appreciate that we had all of these amazing voices. However, this is the beginning of this conference. We have the entire weekend to continue this discussion.

**Gail Hawisher:** I just wanted to say this one thing. I think with Nick talking about graduate students—that was so very, very important. As he said, you don't have to be at the top of your game to participate. The thing is that graduate students are often the ones that when you come back, they are at the top of the game. This is why we need them all: to work with that middle generation.

**Cynthia Selfe:** My motto is that we do not protect graduate students; we involve them.

**Cheryl Ball:** That's the perfect segue into our final announcement. As you go into your next sessions, I think—if anything—we've learned that the community is feminist and welcoming and encouraging from all levels. Traci Gardner is running our mentoring network this weekend, so if you—no, no, only *you* can hold the pool noodle, Traci! If you need a mentor badge, Traci has them. If you are a first-time attendee, please come let us know. She can give you a little badge and set you up with a mentor who can take you through the conference. Not that we're going to hold your hand, but we're going to introduce you to people. We're going to help you navigate the things that will then become your first open door to the community. Thank you so much for coming.

*From left to right: Dan Anderson, Will Hochman, Joe Moxley, Dickie Selfe, Cindy Selfe, Traci Gardner, Gail Hawisher, Nick Carbone, Kathi Yancey, Michael Day, Kris Blair, Mike Palmquist, Janice Walker, Cheryl Ball. Photo courtesy of Risa Gorelick-Ollom*

# Into the Digital Sandbox: Procedural Rhetoric and Co-Authorship

*Brett Keegan, Syracuse University*

The following paper considers videogames as compositions, both in terms of designed artifacts and as enacted in-process texts composed in the moment through the interaction of players and processes. Considering both highlights the difficulty of studying interactive media, which often restructures itself in active, unpredictable ways through users. It also extends terms like composition to consider emergent and distributed creations in addition to the designed, procedural artifacts that inform interaction, addressing tensions of ownership and player agency.

While most of the field tends to take up authorship and gaming in terms of the design process, I argue that in playing a videogame, something—a level, a character, a city, a story, etc.—gets composed, and this composition is indebted to the ongoing interplay of human and computer. This is not to critique the focus on game design, but by grounding compositing in the act of playing, I hope to highlight how interactive media like videogames complicate our view of authorship and composition. On the one hand, a game is an interactive artifact largely defined by its authored procedures, but gamers also exert their own agency, using those procedures in unpredictable ways. Considering the game both as an artifact and as an in-process site of interaction highlights the complexities of interactive media and what may constitute a composition, particularly as platforms like YouTube and Twitch make streaming videogames a viable hobby or income. As players claim ownership of a stream, what this stream is becomes pertinent, and grounding composition in play, instead of publishing or sharing, includes the nonpublished, private composing that all players do—though this may be another question to examine. Before discussing this view, however, I want to ground the conversation in procedural rhetoric and procedural authorship, as these tend to be dominant concepts when discussing authorship and player interaction.

In procedural rhetoric, as Ian Bogost (2010) described, "arguments are made not through the construction of words or images, but through the authorship of rules of behavior, the construction of dynamic models" (p. 29). Procedures refer to the constraints built into the game that inform what one can or cannot do. To detail this, Bogost used many examples, like the *McDonalds Video Game* by the Italian-based La Molleindustria. In this game, the player uses underhanded tactics, like feeding cows growth hormones, to appease a greedy corporate command structure. By constructing a system of procedures that the player must interact with(in) that expresses corporate greed and exploitive labor, argued Bogost, the game critiques fast food in the real world. In this outlook, the game's rhetorical power derives from how the designers use "procedural authorship" to construct arguments, a concept also echoed by Noah Wardrip-Fruin (2009). Instead of creating alphabetic text and visuals, procedural authors create systems that users interact with. While these systems may have visuals, narratives, text, etc., the primary focus of procedural authorship is on the authoring of processes, not content, making it a unique type of authorship largely connected to new media.

But as Bogost (2010) also argued, the game requires the player to complete the argument. A procedural argument is emergent, coming from players interacting within the procedures. As Bogost wrote, "a procedural model like a videogame could be seen as a system of nested enthymemes, individual procedural claims that the player literally completes through interaction" (p. 49). And as Richard Colby (2013) extended, this interaction involves the audience as the gamer in the meaning-making process. Invoking Lloyd Bitzer, Colby argued that gaming could be a rhetorical situation, but like Bogost, he focused on the design aspect of a game, arguing, "The actual game (or text) has to exist beforehand," reducing the role of the audience, except in the case of play testing (p. 214). In this design-centered outlook, players and player experience remain important, but in terms of what the game is, the procedural and visual dimensions tend to dominate, not in-process play. From the perspective of design, this makes sense, but for the player, the rhetorical situation as well as its emergent arguments remain.

Using a more distributed sense of invention, some scholars have considered a more player-focused outlook, however. James J. Brown, Jr., and Eric Alexander (2016) used Collin Brooke's (2009) *prioaretic*

invention to argue that players continue the invention process of a game, even if they may not be designers. As Brown and Alexander argued, invention continues beyond the product of the designer, with the player finding new possibilities within the procedures of the game. By interacting with the game, players exert agency through their choices and abilities, allowing invention through play, not just in the process of design that created the game. As they wrote, "Designers compose procedures that create a model of the world, but players move through the world in unpredictable ways" (p. 274–275). As constraining as procedures may be, an inevitable wiggle room remains for the player, a "possibility space" as Katie Salen and Eric Zimmerman (2004) called it. Some games, like *Minecraft*, are radically open-ended, allowing a considerable possibility space, and others, like *Pong*, remain limited. In either situation, though, a skillful designer anticipates uses, and players may inevitably find new ones. Recognizing this potential for player agency, Brown and Alexander (2016) argued that we should consider the invention process in both design and play (p. 271).

But this expansion requires more examination, as one must articulate what the player is inventing. While a designer clearly produces a game as their iterative process evolves, player invention proves more ambiguous. Thus, I argue that a more fundamental outlook is at stake: A game also exists as an ephemeral composition. As Alexander Galloway (2006) wrote, "If photographs are images, and films are moving images, then video games are actions. . . . Without action, games remain only in the pages of an abstract rule book. Without the active participation of players and machines, video games exist only as static computer code" (p. 2). Galloway viewed videogames as purely emergent media, not really existing until being played. It does not exist as its rules or potential, but only through (en)action, coming into being through play. Similarly, Bernard Suits (2005) argued that a game of chess plays out in a bounded time and space, while the "institution" of chess exists more abstractly, across sessions. Suits and Galloway differ in particulars, but they both highlight the issue of emergence, showing how a fixed pre-authored set of rules lead to multiple expressions in a game. Complicating this further, Brian Upton (2015) argued that players also bring their own constraints, like strategies or player goals, further structuring a game beyond the raw pre-authored procedures.

While the volatility of in-process games offers its own challenges, I do not think it bars gaming from the status of composition, though it forces one to rethink some perspectives. John Alberti (2008) noted, "From the perspective of print-based theories of literacy, gaming is an inherently dialogic discursive space, one that problematizes the distinction between 'reading' and 'writing,' 'process' and 'product'" (p. 267). As Alberti argued, we play games much like a musician plays music: The music emerges from our approach to the pre-written composition, playing as we read. While the written-out notes, clefts, rests, etc., remain fixed as a composition in a more traditional sense, singular sonic interpretations live on as something else apart from that collection of inky notation. Steve Jones (1992) made a similar argument regarding recorded music, as many bands use live concerts to re-create studio recordings, trying to capture a more Platonic fidelity to the studio version. Like music, videogames require enactment, though they may exist in a latent, alternative, or virtual form, and that enactment is bound by time and space.

Calling the situated act of play a composition may seem minor, but it recognizes the tension between a game artifact or title and a game session, both called *a game*. Despite the similar terminology, they are different rhetorical situations. On the design end, composers consider what sort of in-the-moment games their work may lead to, and each time one sits down to play this game, those same procedures and content remain in a largely stable rhetorical artifact. But in-the-moment play may produce unique expressions as the player exerts their input and processors run the code. These expressions, which I am calling compositions, come from the designed game but produce a unique game inflected by the *kairotic* dimensions of that moment and its human and nonhuman participants. Furthermore, each situation requires different skills or literacies, and as the rise of streaming and machinima shows, they may produce different texts.

The distinction between a game title and a game session may not matter much when idly playing *Fallout 4* alone at home, but issues of ownership arise as one captures and shares this content. A player may record the videogame in a walkthrough, for example, or they may use the game to produce machinima and comics. This capacity to use a game as a composing software and share the fruits of that

playbor brings significant questions. Like other fan work, these compositions disrupt ideas of intellectual property and copyright, and like posting music online, posting a playthrough potentially gives the game content away, hurting sales. From the other side, Trebor Scholz argued in his introduction to *Digital Labor* (2013) that one could see this playbor as exploitative, with players showcasing the product and creating content with it for little to no pay. Using *The Sims* as a case study, Tanja Sihvonen (2011), for example, showed the wealth of fan content produced through the game and how a company, like Maxis, works with fans in a symbiotic, though sometimes fraught, manner to advance profits. While these issues and others deserve further examination, they all begin by crediting the player a degree of authorial agency in play. Furthermore, one may want to only credit shared play sessions as compositions, but this treatment contrasts that of other digitally mediated composing. For example, one may not share or publish every piece typed in a word processor, but numerous compositions, and variations on base compositions, exist on a computer.

Moving to a close, though, I want to stress one final thing about why I focus on the term *composition*. First, though some versions of a game, like a recorded video, may give a stronger sense of permanence or textuality, I want to stress that that one does not need to see authoring or composing only as constructing a new artifact that exists discretely or concretely as an object in the world. Instead, I argue that it can be a way of exploring and working with an interface, composing by giving unique expression to an interactive artifact which may or may not be captured. As Kevin Moberly (2008) argued, "This activity. . . is often constructed as play rather than writing or composition," despite its rich expressive capacity (p. 291). I suspect that part of this interpretation, which seems persistent today, rests in the ephemeral, in-process nature of this composing. But as Collin Brooke (2009) argued, "what we think of as products (books, articles, essays) are but special, stabilized instances of an ongoing process conducted at the level of interface" (p. 25). If we wish to open the composition field to new media, we either need to remain inclusive about what constitutes composition or guard our terminology as context and technologies change, exploring and explaining our decisions.

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# A Brief History of Crowdsourced Digital Publishing at LibriVox.org

*Amelia Chesley, Purdue University*

This paper traces the digital publishing history of the audiobook archive LibriVox. Founded in 2005, LibriVox.org is a global community of volunteers engaged in the mission of recording all public domain texts as free audiobooks. Importantly, LibriVox relies on the legal existence of unrestricted material that anyone can wonder at and create with: the shared wealth of the public domain. In a time when corporations are investing relentlessly in centralizing content and constraining individuals' freedoms to engage with and share that content, the decentralized and distributed model of LibriVox consistently works to preserve crucial modes of openness and access not only in their finished product, but also in their workflow and production. LibriVox serves as a potential guide for other collaborative publishing projects, especially those built by multicultural and multilingual groups of volunteers, and can also teach us, as scholars and keepers of culture, how to digitize and share in ethical and more sustainable ways.

In August of 2005, Canadian writer and web developer Hugh McGuire sent out a few emails asking friends and acquaintances if they might be willing to collaborate on a podcast recording of Joseph Conrad's 1907 novel *The Secret Agent*. Twelve people joined the project. McGuire posted their recordings of each chapter to a new blog, and that was the beginning of LibriVox—a volunteer-led effort to produce audio versions of public domain texts. In the twelve years since its founding, LibriVox has facilitated and fostered the production of almost eleven thousand free, public domain audio editions, read and recorded by more than eight thousand volunteer readers in 94 different languages.

Inspired by the open-source software movement and emerging forms of crowdsourced content-creation, the globally-distributed community of LibriVox participates in and sustains an open and highly inclusive workflow, welcoming all potential readers and as many versions of any public domain text as volunteers want to create. There is no strict organizational hierarchy at LibriVox—any volunteers willing to propose, manage, and complete audiobook projects or other related public domain projects are encouraged to do so, and others help lead or collaborate on these projects as they are willing and able. In a time when corporations are investing relentlessly in centralizing content and constraining individuals' freedoms to engage with and share that content, the decentralized and distributed model of LibriVox works to preserve crucial modes of openness and access not only in its finished product, but also in its workflow and production processes.

LibriVox volunteers have developed a flexible-yet-resilient system of open, collaborative publishing. In this piece, I trace and examine how the project's volunteers have drawn on and adapted pre-existing technologies and infrastructures such as podcasting, wikis, and open-source software in order to fulfill the LibriVox mission of transforming all public domain texts into free, accessible audiobooks. Building on this history, I also investigate how volunteers manage and negotiate their ongoing collaborative work in the face of persistent questions and controversies stemming primarily from the legal realities of donating one's voice into the public domain and from the social realities of relying on volunteer labor.

The workflow of LibriVox's ambitious project faces continual moments of recalibration and re-justification to account for the challenges of working within a global community of volunteers while also navigating the expectations of millions of listeners. In documenting and discussing the ways LibriVox's initially *ad hoc* techne has settled into protocol, I highlight the valuable rhetorical work done by these volunteers, not only in terms of how it supports the LibriVox project itself, but also for what that work teaches us about online commons-based collaboration.

Because the LibriVox project is so open, I have been able to engage with its community and artifacts as both researcher and as participant. Since January 2016, I have been actively volunteering in the forums as reader, proof listener, and project coordinator. I am also a member of the LibriVox Readers & Listeners Facebook Group and occasional contributor to the LibriVox Community Podcast. As participant and researcher in these dynamic spaces, I draw on a combination of ethnography and

autoethnography (Boellstorff, Nardi, Pearce, & Taylor, 2012), taking care to share my status as a researcher when relevant and to practice reciprocity. Through direct experience with the online community of LibriVox and through analysis of its public production processes, I have begun to illuminate some of the many-layered technosociocultural foundations upon which crowdsourced digital publishing endeavors like LibriVox stand.

## Crowds and Networks of Social Peer-Production

Digital, networked technologies have made possible more inclusive and more accelerated modes of collaborating, creating, sharing, and remixing. Many scholars have recognized that digital technologies and their contexts afford a priceless increase in openness and public access (Benkler, 2006; Lanham, 2007; Bollier, 2008; Shirky, 2010; Hayles, 2012; Potts, 2015). Networked technologies combined with open philosophies allowing free (or freer) circulation of information almost inevitably lead to greater transparency, efficiency, and democracy in terms of cultural production and access (Benkler, 2006; Shirky, 2010). Demand for digital curation skills is growing rapidly, along with recognition of the economic value and societal benefits such skills can provide (National Research Council, 2015). Crowdsourcing projects and commons-based, peer-production models allow anyone—from novice to expert—to join and sustain grand social efforts to curate, digitize, publish, and share content across many disciplinary contexts. An example of such inclusive public action can be seen in how "information resources such as repositories, databases, and archives are increasingly being crowdsourced to professional and nonprofessional volunteers," (Rotman, Procita, Hansen, Parr, & Preece, 2012, p. 1092).

Popular and valued crowdsourced initiatives like Project Gutenberg and Wikipedia (both precursors to LibriVox) have facilitated and encouraged consistent public participation in knowledge production (Benkler, 2006; Jemielniak, 2014). Indeed, the participatory culture of LibriVox is similar in some ways to that of Wikipedia—all listeners, users, and bystanders are invited to contribute in small increments, and their efforts are included in the ever-growing collection of audiobooks. However, the nature of LibriVox's mission means that plurality and multiple voices are privileged and showcased in ways that Wikipedia, with its pursuit of ever-increasingly-refined consensus, does not tolerate. All three projects have made use of crowdsourced commons-based production models to engage in the ongoing digitization, preservation, and circulation of human knowledge and culture.

The influence of crowdsourced digitization and public knowledge-making efforts have also formed the basis of much research and critique in writing studies and elsewhere (Rosenzweig, 2006; Purdy, 2009; Kill, 2012; Graban, Ramsey-Tobienne, & Myers, 2015; Yancey, 2016). These scholars raise questions about the effect digital knowledge-making and curation should have on the ways we learn and teach effective communication. Much of the value of social production and digitization stems from the collaborative learning opportunities these practices allow and the complex digital communities that emerge around the activities of sharing knowledge (Wenger, White, & Smith, 2009). Similarly, Miles Kimball (2016) recognizes the human drive to share experience using whatever means possible: "At no time in human history have more people […] been involved in helping to accommodate each other to technology," (p. 12). Precisely this kind of technologically-enabled accommodation and proliferation of shared resources happens within the LibriVox community as members learn, invent, and practice how to navigate the challenges of global online collaboration and accomplish the work of audiobook production.

## LibriVox as Meshwork

The history and activity of LibriVox is distributed across several online spaces and across a vast global network of individuals. Many of the procedures and policies LibriVox has evolved are scattered among various digital records, metadata, and audio files, forming a living meshwork of archived hypertext and human voices. More than a network of joined nodes, a meshwork is constituted by inhabited entanglement where acting, doing, and being take place (Ingold, 2007, p. 80; 2011, p. 63). As part of LibriVox, volunteers inhabit various roles; they work as curators, voice artists, project managers,

audio producers, copyright sleuths, digital content managers, mentors and instructors, researchers, translators, dialect coaches, and/or technical writers. As they fill these roles, volunteers leave traces of their work across the ever-changing digital meshwork.

LibriVox hosts and cultivates the use of a variety of connected tools and spaces as part of its mission to record as many public domain audiobooks as possible. Artifacts encountered thus far in my preliminary map of the technosociocultural landscapes of LibriVox include:

- the LibriVox forums and message boards
- the LibriVox Management Dashboard (for back-end project management; also commonly called the section compiler)
- audio recording and editing software (Audacity, GarageBand, Camtasia, and other programs)
- a wide variety of computers, microphones, headsets, adaptors, and other hardware for recording
- the LibriVox website (including the blog)
- the LibriVox wiki (also called Guides for Listeners & Volunteers)
- links to instructional resources hosted elsewhere (YouTube, other forums, etc.)
- the catalog spaces at LibriVox.org and Archive.org
- the LibriVox Community Podcast archives
- social media presences on Twitter, Facebook, Reddit
- posts from LibriVox volunteers concerning the participatory roles they've defined for themselves

Together these documents, technologies, and spaces begin to define a volunteer-driven audio digitization or publishing network. Harnessing these connections, thousands of volunteers read, produce, and disseminate free audiobooks for millions of listeners, who in turn have the opportunity to become volunteers themselves. Across the LibriVox sites, catalog spaces, social media accounts, and elsewhere, listeners access and engage with finished LibriVox recordings in a variety of ways. The primary LibriVox files hosted at Archive.org have collectively received more than 600 million views (LibriVox Free Audiobook Collection, 2006). Additionally, there are many mirrors and copies created for use via third-party websites and apps. LibriVox recordings have also been re-distributed via radio, television, CDs, podcast segments, and YouTube.

## LibriVox's Technosociocultural Histories

A constellation of blog posts, discussion forum threads, and podcast episodes provides detail about the beginnings of the LibriVox project. I first began listening to the LibriVox Community Podcast out of general personal interest, but soon discovered how rich and detailed this content would be for the purposes of my research. Archived podcast episodes provide unique and intimate audio-snapshots of LibriVox over time. In this once weekly and now sporadically produced podcast, volunteers take turns sharing news from the forums, celebrating their work and the work of other volunteers, and reflecting on their participation in the project. Upon realizing the insight these records offered, I downloaded the full archive, spanning ten years of LibriVox's existence (September 2006–December 2016).

For the purposes of my present exploration, I've drawn evidence for my discussion from a large sample of these LibriVox Community Podcast episodes and from specific forum discussions referenced in the podcast. I listened to and created annotations for 110 of 144 episodes, comprising about five years of community history (from September 2006–August 2010). To supplement my annotations, I used the search function on the LibriVox forums to locate the show notes for each episode and any other specific conversations and announcements discussed or referenced in the podcast.

Using what I gleaned from these episodes and forum threads, I began constructing a timeline and overview of LibriVox's history. The following sections briefly describe salient developments from the first ten years of LibriVox and build toward a brief discussion of two specific controversies that regularly percolate through the community.

## Any Recording is Better than None

Many core LibriVox spaces emerged, at least in prototype, relatively quickly. Founder Hugh McGuire himself spearheaded the first audiobook projects at LibriVox, but soon realized he couldn't run everything. Eager volunteers with the requisite experience gradually donated server space, coding talents, and time to the project, all drawing on expertise from other arenas such as computer programming or library and information science. Founding members of the project reminisce about the earliest wild west days of collaborating via email and one simple blog, librivox.blogsome.com, for sharing and publishing their audio files (Gonzalez, 2012). A stand-alone domain name, librivox.org, and official LibriVox forums were established, and volunteers soon populated these new forums with orderly sections and helpful structure. A LibriVox wiki was created for consolidating and sharing instructional and policy information with a growing contingent of multicultural volunteers. Once the population of volunteers grew beyond the first handful, email was no longer a feasible way of distributing files. Temporary file-sharing websites like yousendit.com became a standard method of getting files from reader to coordinator and eventually to cataloger. By October 2005, librivox.org sported a new website design, and a catalog database system was under construction.

At first, the quality of audio files was mixed, and there was no vetting process to assure a consistent, pleasant experience for listeners. Referring to his very first LibriVox contribution, Hugh McGuire reframes its poor quality into a symbol of how even a novice can make something useful and share it with the world (Samuels, 2007; Gonzalez, 2012). Eventually, technical specifications were established and readers were encouraged to ensure their recordings met those specifications. The practice of proof listening audio files before cataloging was introduced in January 2006, and gradually became a requirement for all projects. However, proof listeners were instructed to never critique reading style, pacing, pronunciation, or any other subjective quality.

Five core LibriVox values emerged, and remain central to the project:

- LibriVox is a noncommercial, nonprofit and ad-free project.
- LibriVox donates its recordings to the public domain.
- LibriVox is powered by volunteers.
- LibriVox maintains a loose and open structure.
- LibriVox welcomes all volunteers from across the globe, in all languages.

These LibriVox values have guided and shaped the project since its early days. While these principles clearly and succinctly delineate and support the LibriVox mission, they also constrain the project in important yet sometimes controversial ways.

## Perennial Controversies

From time to time, the core values and principles of LibriVox conflict with reader and listener expectations, spurring questions, concerns, and debate about the value and/or costs of established policy. Two significant issues and their associated controversies have been especially common throughout the history of LibriVox:

- The issue of whether to attach licenses to LibriVox output, instead of allowing unrestricted use of all published recordings, including commercial re-uses; i.e., the "How dare someone try to sell my volunteer work?" controversy.
- The issue of whether to invite listener ratings or critical feedback for volunteer readers, rather than guarding volunteers against such criticism and accepting all understandable recordings into the catalog regardless of reading style or language ability; i.e., the "Why can't everyone pronounce things the way I prefer?" controversy.

Both of these issues and the ways the LibriVox community approaches the debates surrounding them are discussed briefly below.

## Commercial Re-use

LibriVox's existence relies on willing participants, and also on many pre-existing systems, technologies, and partner organizations. Foremost among these scaffolding systems is the legal existence and precedent of the public domain; without this trove of unrestricted, publicly available, free-for-reuse material, the LibriVox mission would not have the ambitious scope it does. The principles of LibriVox mean that all LibriVox contributions remain in the public domain in the US, where anyone is legally free to do whatever they like with them. No monetary compensation or added copyright attends the time and labor LibriVox volunteers put into their projects. As a result of the public domain principle, anyone is legally free to remix, repackage, or even sell readers' recordings if they wish.

When volunteers discover repackaged versions of their LibriVox work in other contexts—burned onto CDs for sale on eBay, matched with art or video on monetized YouTube channels, or downloadable for a subscription fee on another website—they often bring their concerns about this seemingly unethical re-use back to LibriVox. Some ask what can be done about the issue, wondering why the community doesn't license their work using Creative Commons licenses. Others suggest various steps LibriVox could take to protect their catalog. In response, those more familiar with LibriVox policy will remind the upset volunteers that public domain means just that: anyone can repurpose this work for anything, and LibriVox is financially unprepared to challenge such re-use even if it wanted to control the destinations of its products. Accepting this fact is a firm condition of participating with LibriVox, and new volunteers must understand this condition and be willing to donate their work before participating.

## Unsolicited Criticism

LibriVox relies solely on volunteer labor and welcomes readers from any and all languages, with any understandable language ability, accent, or style of reading; this means listeners must accept a wide variety of recordings. Of course, not all reading styles are enjoyable to all ears, and listeners regularly approach the community with suggestions for greater quality control. LibriVox, however, recognizing the potential chilling effects of negative feedback, has long enforced a strict policy of "no unasked-for feedback or criticism." (Mowatt, 2006; Hughes, 2007; Samuels, 2008; Gesine, 2010). Since judgments about readers' pacing, cadence, tone, pronunciations, accent, pitch, and other stylistic elements are inherently complex and subjective, the LibriVox community has determined that all such efforts at quality control are not warranted in a volunteer-run project.

A corollary here is that no single reader, accent, or style will ever constitute the definitive performance of any particular text. Multiple readings are welcome and encouraged; if one listener disagrees with one reader's interpretation, that listener is welcome to find another, or even to record their own.

## Non-negotiable Navigations

LibriVox handles these and other controversial issues by appealing to their "prime directive" (as several volunteers half-jokingly, half-reverently term their central mission), which is simply to create free public domain audiobooks for the world. If a suggested modification to LibriVox's policy or processes would clearly ease the process of freely recording and distributing audiobooks, the community may consider it. If the suggestion can't be shown to help directly with that central mission, it is simply (and often quite firmly) dismissed.

Despite this clear and consistent evaluation process, the concerns about unethical commercial re-use and unsuitable reading styles, pronunciations, accents, etc., will likely never go away. Such controversies, and their regular reappearance at LibriVox, are a consequence of the core strength of the project: its openness. Volunteers new and old will continue to confront these and other common issues as they are rearticulated. A constant influx of new volunteers since 2005 has meant that the inexperienced and unassimilated unearth these controversies again and again. Each new volunteer, in joining and adjusting to the LibriVox community, must confront and negotiate her own principles within those of the project as

a whole. It takes patience and firmness from experienced volunteers to continually re-establish, re-explain, and re-argue the reasons behind LibriVox's policies every time they are challenged.

## Future Investigation

Volunteers have recorded and preserved the history of LibriVox in ways that seem haphazard and disconnected, but also reflect the open structure and priorities of the project. The difficulty of accessing digital history via often transient web artifacts scattered across platforms means there may be persistent gaps in what I am able to discover. Interviews with volunteers will allow me to complete a fuller ethnography of these spaces, filling in gaps where the public records of LibriVox lack transparency. I also plan to explore a selection of completed LibriVox projects in greater depth, looking for more detailed evidence of how the community and its technosociocultural contexts have shaped it and its work over time.

## Conclusions

With this review of what has made LibriVox into the popular and productive site it has become, I want to emphasize the importance and value of decentralized and distributed models like LibriVox for promoting and safeguarding crucial modes of ethical, resilient openness. The LibriVox community and publishing project has grown and evolved in surprising and wonderful ways that deserve further study. LibriVox's clarity of purpose and open, welcoming processes become potentially useful models for future collaborative, online media projects, and the implications of this successful, sustainable, commons-based, digital publishing model may help prompt important, democratizing shifts in the future of open scholarly publishing.

By actively engaging with a fertile intellectual, cultural, and technological commons, LibriVox volunteers have freely adapted the tools available to them within the constraints of existing legal, cultural, social, and technological systems. Built on a recognition of what crowdsourcing makes possible and on an appreciation for the cultural commons of the public domain, LibriVox provides opportunity for anyone to select and transform beloved old texts into sound, and to share the results across the web, adding their voice to a living, ever-expanding archive.

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# The Sweetland Digital Rhetoric Collaborative as an Instructional Tool: Cross-Community Connections and Collaborations

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This article documents the practice and possibilities of using the Sweetland Digital Rhetoric Collaborative (DRC) website as a pedagogical resource for writing classrooms. First, we outline the goals of the DRC, showcasing the Board's vision of the project and the graduate fellows' efforts to enact that vision. Next, we report on conversations with 2016 Computers and Writing session attendees about possible topics and activities that would bridge the DRC's content and platform with writing classrooms. Finally, we synthesize our discussion into takeaways—simple steps and suggestions that could scaffold a new user's experience with the site while giving experienced site users some fresh ideas about the potential affordances of using digital content from a collaborative online community in their classes.

On its home page, the Sweetland Digital Rhetoric Collaborative (DRC) positions itself as "a space for shared inquiry into the range of ideas, conversations, and activities that together constitute the work of digital rhetoricians and of the computers and writing community." The first Blog Carnival asked contributors—Troy Hicks, Kris Blair, Cheryl Ball, Jonathan Alexander, Derek Mueller, Jentery Sayers, Melanie Yergeau, Liz Losh, and Claire Lauer—to respond to the question: What does digital rhetoric mean to me? Their posts represent interests in digital natives, digital publishing, kairotic composing, identity representation, circulation networks, surveillance, big data, disability, disciplinary identity, and terminology. These posts point to the variety and unity in conceptions of digital rhetoric and in the computers and writing community. Liz Losh (2012) observed in her post that "any book about this subject quickly becomes outdated," a problem that Doug Eyman (2012) hoped the DRC would address:

> But this is where this project—the Sweetland Digital Rhetoric Collaborative—comes in: it's a way to bring together a number of disciplines and scholars and their work that isn't limited to the time-bound form of the book. It is an instantiation of the ethos of digital rhetoric—the formation of a habitual gathering place for a specific community of rhetors.

The site continues to reach for this early vision, gathering content and contributors from a range of disciplinary orientations to think together about what it means to engage in or with digital rhetorics. This gathering place relies on readers and contributors brought together by its graduate fellows.

In 2013, the DRC launched its Graduate Fellows program. (This is where we come in!) Each academic year, the Graduate Associate coordinates a group of four to six graduate fellows who attend monthly online meetings and take responsibility for proposing new content, managing regular features of the site, reaching out to contributors, and facilitating collaborative events. The site has produced Blog Carnivals and Conference Reviews from its inception, and the first cohort of graduate fellows was charged with developing new features and generating a consistent posting schedule, giving readers and contributors regular opportunities to think through what it means to be a digital rhetorician and to rhetorically parse digital texts. They introduced the Webtext of the Month feature, which looks closely at the rhetorical composition, critical content, and collaborative labor involved in producing digital texts, and they created the Hack & Yack series to review tools, offer practical advice on using technology to support pedagogy, and explore theoretical lines of inquiry about technology's role in composition and communication. The second cohort focused on reaching out to the broader digital rhetoric community, and fellows took responsibility for promoting content on Facebook and Twitter and making connections to other online communities interested in advancing the practice and theory of digital rhetoric. They experimented with Pinterest boards, streamlined procedures for contributing to the DRC Wiki, and

facilitated Twitter chats and Google Hangouts. As they designed these projects, fellows drew on local interests and faculty expertise at their home institutions, which ultimately led to the third cohort's project: reaching out to classrooms. The third-year fellows began redesigning the site to make posts easier to access by topic and theme in hopes that streamlining access to information would make it easier for members of the community to think about how to use the wealth of materials now available. They began posting a bi-weekly roundup of topics to relevant listservs. They solicited digital lesson plans and coordinated with faculty who designed opportunities for their undergraduate students to contribute to the DRC Wiki (Davis, 2016).

The 2015-2016 graduate fellows saw the 2016 Computers and Writing conference as an opportunity to solicit feedback on how the DRC site had been used in classrooms and to explore suggestions for what might make it more useful and user-friendly. Paula Miller, a graduate fellow at the time, explains in her reflection on the workshop:

> While in previous years, we focused inward, exploring how we cultivate and maintain the blog to serve the CW community, this year's focus was collaborative and focused outward, exploring how we can serve the community, how teacher-scholars can engage with and use the site for teaching and research. (Miller, 2016)

In light of this goal, the Sweetland DRC graduate fellows facilitated a breakout, brainstorm, and build workshop designed to revitalize standard uses of the DRC and to generate new approaches. Approximately 30 participants contributed to small group discussions and a collaborative Google doc in response to five organizing questions:

- How can we create a lesson plan that promotes collaborative writing?
- How can we create a lesson plan that promotes critical tool use?
- How can we create a lesson plan that promotes social justice and activism on the Web?
- How can we create a lesson plan that promotes multimodal project production?
- How can we create a lesson plan that promotes visual design thinking?

What follows is a brief summary and synthesis of the questions, concerns, and suggestions that surfaced in these small groups.

## Discussion

### Promoting Collaborative Writing

Merideth Garcia, DRC graduate associate, facilitated Group 1, which focused on collaborative writing and quickly took a turn into conceptual work and meta-conversations about the challenges of writing together. For example, the group spent several minutes at the beginning of the breakout session discussing how participants could contribute to the Google doc in ways that would document their work. A group member suggested "To keep track of who's putting what parts into the document, when you're writing together, you might want to use suggest mode: gives everyone a different color." As contributors went into suggesting mode, we realized that some of us appeared as anonymous, so we also created a roll listing all our names and institutions. This point is worth belaboring a bit—collaborative writing requires a level of trust that calls for transparency and recognition. Every person present contributed to the discussion, some made notes in the doc, some of the note-makers were named and others were anonymous. When we engage in and assign collaborative writing, how do we support and value *all* of these kinds of participation?

This opening discussion led us to think about our roles in the group and our roles in the writing. We asked ourselves: "What *is* collaborative writing?" Three types emerged from our conversation

- Creating together
- Archive or repository
- Wiki - creating and editing

(see Kittle & Hicks, 2009, for a similar framework and technology recommendations). We noted that often when we ask students to write collaboratively, we have a vision of them creating together,

exchanging ideas and information, writing and receiving feedback from each other in ways that amplify and streamline the work. Perhaps it does work this way sometimes, but often the final product reads more like a repository or archive. Like jigsaw activities, one person takes section 1, another section 2, and so on. Multimodal work seems especially prone to this kind of division of labor as group members take charge of different modes (one selecting the visuals, another providing the audio, and another generating the text). Sometimes a single person is appointed to stitch together these disparate pieces, but just as often, the pieces sit together without much to connect them, leaving small archives of students' approaches to a shared topic. This archive or repository type isn't necessarily a bad thing; as the second type of collaborative writing we discussed, it is sometimes the design. For example, blog posts that address a common set of readings, videos that address a course theme, and visual representations of different narrative moments in a shared text would all meet this composing goal. The third type we identified was a Wiki model where students post writing that is open to revision or extension by others. This might take the form of shared class notes or contributions to an actual Wiki.

The DRC offers examples of all three of these types (and probably others that we did not identify in our brief time together), and we agreed that an important, and perhaps overlooked, aspect of collaborative writing assignments was understanding and discussing with students what model of collaborative writing was desired in a given situation. These kinds of conversations could go a long way toward addressing many of the issues raised in our discussion, such as student anxieties about working in groups, the potential barriers raised by requiring logins or accounts, and structuring the division of labor and methods of crediting collaborators. Participants suggested that depending on the type of collaborative writing activity, students could create a multimodal project to address a Blog Carnival theme (creating together); they could review an edited collection on digital rhetoric, with each chapter covered by an individual or pair of students (archive or repository); or they could select a section of the DRC Wiki to build out as a class (Wiki).

## Promoting Critical Tool Use

DRC Fellow Jenae Cohn facilitated conversation in Group 2, which focused on ideas for building lesson plans that promoted critical tool use. This group defined critical tool use as student engagement with digital tools that promoted critical thinking and reflection; that is, the group considered how digital tools could be brought into the writing classroom in pedagogically sound and thoughtful ways, as opposed to adopting the tools simply for the sake of adopting new tools. The group decided on several key goals for bringing critical tool use into the writing classroom: we want to encourage students and instructors alike to explore new ways of thinking, to streamline students' development in learning new tools, and to help students re-think how platform and tool choices impact communication and design principles.

To follow, this group developed several ideas for how to meet these goals with the DRC's resources. First, the group focused on the ways in which the DRC's Wiki could potentially support our goals. In particular, the group suggested adding a section for writing-related Tool Reviews that may be of interest to future instructors and administrators. We also thought that the Wiki could include a list of books or resources about enacting digital rhetoric in the classroom; these resources would be different from the book recommendations that currently exist in the Wiki because, rather than focusing on theories of digital rhetorics, they would focus on texts that offered more extensive "how-to" and/or teaching guides.

This conversation led to some discussion of what, exactly, prevents students and instructors alike from adopting tools critically: fear of failure. Indeed, failure emerges from ambition, and the group determined that, as writing classrooms work more to adopt new tools and technologies, it is worth encouraging instructors to facilitate transparent conversations about the distinctions between productive and unproductive failure. One way the group proposed having these conversations is through sharing stories of failure. In particular, the group thought that a future Blog Carnival topic on the DRC could be dedicated to submissions about failure, with guiding questions like, "How did you and your students feel

encouraged to try new tools even as the tools might have broken or failed?" "How did you make your failures productive?" and "How did you make the tools work for you as an instructor?"

Some of these questions also made the group wonder about ways that the DRC could support instructors who may feel wary about adopting new tools but recognize the importance of bringing critical tool use into their classes. The group brainstormed a few other concrete resources that a space like the DRC could support, like a Getting Started with the DRC guide that would help instructors determine how they could take advantage of the many resources the DRC already has available to help instructors navigate both practices and theories of digital rhetoric. The group also considered adding a glossary to the DRC that would help instructors who are new to teaching with digital tools learn some of the basic terms and concepts that might help them pick appropriate tools for their classes. For example, some new instructors might not yet know the difference between synchronous and asynchronous tools or what a cloud-based or LTI compatible tool might mean for their teaching. Ultimately, we concluded that promoting critical tool use in the classroom is just as much about embracing possibilities for exploration as it is embracing the inevitability of failure. We acknowledged that there is much work to be done in inviting new people into conversations about tool use, but that the possibilities for doing this work in a space like the DRC are compelling.

## Promoting Social Justice and Activism

Group 3, led by DRC Fellow Paula Miller, considered the social justice possibilities of using the DRC. These included proposing a series that the class might create for publication on the DRC site, having students explore and evaluate their own digital identity/ies and online activism, and promoting collaboration across institutions, bridging demographic and experiential gaps through public-faced writing. This conversation surfaced the necessarily public nature of writing for social justice and positioned the DRC as a welcoming space for faculty, graduate students, undergraduates, and nonacademic members of the community to share their work in an open-access space. One question raised was "How do communities live beyond academic-endorsed time?" Participants wrestled with the difficulties of building on the foundations created in a course and suggested that making opportunities for students to grow their professional networks, perhaps by developing publishing opportunities in collaboration with DRC graduate fellows, can be an important factor in building relationships that extend across communities.

When brainstorming lesson ideas, discussion turned to a 2015 Blog Carnival that specifically addressed social justice and gaming. A lesson idea that emerged included asking students to play games that engage social justice issues. One such lesson plan might ask students to create avatars and then interrogate the choices they made regarding race, gender, and appearance. This could include discussions of students' prior experiences with race, gender, and appearance that influenced the creation of the avatars. Then a more critical reflection of those discussions would be to consider such questions as "What makes an avatar masculine or feminine?" (see Lee, 2015). Alternatively, a lesson could be built around having students document their decisions as they play through a game that involves narrative choices. Students could then use their decisions in the game to reflect on social justice issues that are apparent, inherent, or latent in the narrative (see Custer, 2015). Participants were enthusiastic about using the DRC both as a resource and a partner that could potentially provide a venue to publish the work students generated in their courses.

## Promoting Multimodal Project Production

Group 4 was led by Naomi Silver, associate director of the Sweetland Center for Writing. The group focused on the question: "How can we create a lesson plan that promotes multimodal project production?" This group organized the discussion around sub-questions generated collaboratively. One sub-question focused on curating tools and materials in a teacher-friendly way to promote sharing amongst the group, and participants discussed the affordances and limitations of both a static, dedicated site and a more flexible tagging system. Additionally, the group considered other means for facilitating

conversations between teachers about the lesson plans they might produce for multimodal project production. There was a great deal of conversation about which platforms were best suited for different kinds of synchronous and asynchronous conversations about lesson plans, specifically relating to multimodal and digital rhetoric, with special consideration of how time constraints shape possibilities. This brought up more questions about how and when particular platforms—like Twitter, Facebook, and the DRC blog—might be the best way to keep a conversation engaging and trackable.

Although most of the conversation was directed towards teacher practices, the group also discussed how to craft a lesson plan for multimodal project production. One question we considered was how teachers could direct students to production tools, and we agreed that both the DRC Blog Carnivals that feature particular tools and the specific Tool Reviews serve as useful introductions to various tools to facilitate multimodal project production. Similarly, the group considered integrating small activities where students could practice and experiment with the tools they might use for their projects. We also discussed the importance of incorporating task-based frameworks to help facilitate multimodal project production (see Shipka, 2011). Overall, the group came to a consensus that in order to craft lesson plans around multimodal project production, teachers need frameworks for incorporating tools and approaching them from a rhetorical and writing studies standpoint. Furthermore, there is a need for more of what Stuart Selber (2004) called "functional literacy," which he conceptualizes as paired attention to both the nuts-and-bolts of how to use computers and to critical consideration of the computer-as-a-tool metaphor (p. 35).

## Promoting Visual Design Thinking

Brandy Dieterle, DRC Fellow, facilitated Group 5, which focused on the question "How can we create a lesson plan that promotes visual design thinking?" Much of the time in this group was spent studying the question further, specifically the phrase "visual design thinking." Participants wanted to define this phrase before proceeding, and our definitions were focused around usability and the arrangement of the page, genres (e.g., memes), visual rhetoric, and design aspects of professional writing. Once the group came to an agreement on how we could define and think about the phrase "visual design thinking," we turned our attention to crafting assignments we could create lesson plans for. The group briefly discussed two different assignments directed at promoting visual design thinking: 1) using the same caption with different photos to create memes and then determining how the changes impact the message being conveyed, and 2) translating an alphanumeric text to a visual genre.

With regards to the first assignment discussed, the group spent some time thinking through what this type of assignment might look like, and that is where we came up with the primary question that would guide this assignment and discussion: How does the same caption on different photos impact meaning? To prepare students for the visual design thinking that would be crucial for completing this assignment, we discussed what scaffolding practices students would need experience with beforehand. Specifically, students would need to learn how to read an image rhetorically, and also how to read a text visually. Other specific points the group discussed were: working with students to understand both overt and hidden meanings in a meme, the context of a meme, the media that is used and being referenced, and the audience. Furthermore, the group brainstormed ways that the DRC's resources could assist in this. There are several blog posts that discuss multimodal composing, but there are also a few that directly reflect on meme-writing that would be useful for students to gain a more critical understanding of working with memes. Additionally, the group noted that there was a page on the DRC Wiki devoted to memes where students could be directed to get a Wiki-esque definition of the term.

The second assignment we discussed was a bit more generic in that we focused on an assignment that involved students taking a previously written alphanumeric essay and translating that assignment into a new, visual genre. The group started by brainstorming what would be needed to help students complete such a task, and then worked on arranging that information in a step-by-step guide for crafting a lesson plan. To scaffold student learning for this assignment, the group decided that we would start by introducing the idea of visual design thinking and threshold concepts, using the DRC Wiki as a resource.

Next, we would showcase models and technologies to help students gain a sense of what this process looks like and what the possibilities are. After taking these initial steps, the group decided that students should write a proposal for their visual genre that elaborates on the specific tools and concepts they would be engaging with for the assignment. Next, students would engage in workshop activities to help them continue working on their projects. Finally, students would submit their projects and complete a reflection, using the DRC as a resource to explain their rationale as well as to gain terminology to use in their reflections. Like the other assignment discussed here, the group reiterated the importance of helping students learn to read visuals and texts critically.

## Conclusion

At the conclusion of the workshop, the groups shared their observations, and the DRC fellows opened the floor for conversation. The need for more time to plan and think together was a common theme. Several groups expressed having a difficult time crafting a lesson plan without a particular assignment in mind, suggesting that future iterations of this type of workshop would benefit from advance contact/co-planning with participants. In a basic way, this workshop served to introduce participants to the content available while brainstorming possibilities for its productive use in their classrooms, and there was a great deal of interest and excitement from participants about what they learned about the DRC in our short time together.

In turn, the graduate fellows were excited to hear about what participants wanted most from the DRC, especially in terms of facilitating its use in their classrooms. While pedagogical resources and lesson plans have appeared on the DRC site from the earliest posts, some in attendance pointed out that it can be difficult to parse through these materials to find concrete suggestions. Participants suggested that the DRC consider developing a dedicated part of the website to sharing resources for teachers that would help bring visibility to materials that focused on application in classrooms. These suggestions led to the development of more precise categorization strategies on the site and to a recent Blog Carnival focused specifically on teaching (see Easter & West, 2017).

In addition, because each group took up questions of definition, application, access, relevance, and assessment, we offer four takeaways that we believe will help users enter and further these critical conversations:

- Definition work is ongoing. Send students to the DRC to summarize, synthesize, and extend definitions of relevant terms and practices.
- Have students review the tools that they use to create their multimodal projects, focusing on how the tool rhetorically shapes the product.
- Have students read and evaluate current Blog Carnival topics and make suggestions that reflect their questions about digital rhetoric and their commitments to social justice in online and face-to-face spaces.
- If you develop a unit (or course!) using DRC content, contact a graduate fellow to discuss publishing your lesson plan(s) and reflections written by you and/or your students.

As these takeaways suggest, our brief discussion of the possibilities for using the DRC as a tool for teaching and supporting collaboration across affiliations is just a piece of the larger project of promoting a community of digital rhetors by providing space for practice, analysis, and reflection. We hope this article will encourage readers to explore the DRC as a resource for teaching and to reach out to the Fellows with ideas for fostering collaboration that supports student and faculty publication on the site.

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# The Unboxing of Techné: Thinking Outside the Algorithms

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In response to Jeff Grabill's caution about robots in his keynote speech at Rochester, this workshop will explore ways that algorithms limit our wonder as well as activities through which we can recapture that wonder by thinking outside of the algorithmic box. The following limiting trends will be explored: the algorithmic limits on Internet searches, the self-limiting habits of hurried citizenship, the local ramifications of commercial internet use, and the existential threats to academics. Activities will include upsetting the Google cart, exploring photo, video, and social media apps, exploring social implications of such apps, and thinking about pedagogical significances. This workshop heightened the awareness of the problem of algorithmic limitations and invited further conversation.

In Rochester at Computers and Writing 2016, Jeff Grabill cautioned against robotic writing and Big Data. He suggested that software products that claim to teach writing are instead automating work and deprofessionalizing teaching. The situation may even be more dire than he suggested: coffee pots will soon watch us (LaFrance, 2016); algorithms may be accepted as evidence in court (Garber, June 2016); robots may eliminate many jobs, leaving millions without an identity (Williams-Grut, 2016; Brynjolfsson & McAfee, 2014, p. 30; Pinker, 1994, p. 193); and robots will eventually control everything (Devaney, 2016).

However, this increasing mechanization may only be an extension of ourselves. Marshall McLuhan (1994) claimed that all media have the power to translate experience into new forms like metaphors, which means technologies and the information they provide are translations and extensions of our human consciousness. He argued that electric media enable human beings to put physical bodies into the extended information systems. He also predictably advised to maintain smart consciousness so the media cannot influence us too much to the extent that we would live in the illusions of the entertainment industry. Indeed, our identities, selfhood, sense of gender, concepts of ethnicity and race, class, sexuality, nationality, and so on that divide our own sense of belonging to others are all shaped by radio, television, the Internet, and other products of media culture (Keller, 2015, p. 8). Therefore, media are not only extensions of us, but we are gradually becoming extensions of media. Daniel Anderson (2003) held that in new media composition, human beings are producers and consumers at the same time, hence the coining of the term "prosumer," which signifies new territories of virtual and real-life identities. According to the logos of prosumer, photo and video app users' experience will be shaped not only by their identities as producers but also by their identities as consumers when they evaluate and digest others' and their own visual, audio, and multimodal compositions on a daily basis. This everyday composition process will in turn define and change their values toward class, ethnicity and race, gender relations, and their behavioral patterns in many ways.

At the same time, multiple trends suggest that we are being forced into smaller and smaller boxes that actually separate us from one other while claiming to give us what we want. For example, Google search algorithms give us more of the same sort of stories. Also, in *Digital Cosmopolitans*, Ethan Zuckerman (2014) suggested that most Internet users never venture beyond news of their own locale, even though the world of news is available, mostly in English (p. 55). Even that locale is being problematized. Sut Jhally (2015) argued that in consumer culture, it is difficult to locate origins of people's most cherished values and assumptions because everything seems so natural and therefore so normalized that what we used to value as fundamental happiness (control of one's life, self-esteem, happy family life, loving relations, tension-free leisure time, and good friendships) is weighted only by its market value (Dines & Humez, 2015, pp. 246–248). That consumer culture is also changing. Erik Brynjolfsson and Andrew McAfee, in *The Second Machine Age* (2014), suggested that local providers of goods will be outsold by Internet shops, ending the local small business (p. 162). This tendency may even become an existential threat to

academics in the era of MOOCs (Massively Open Online Courses). In addition to exploring these trends, this workshop suggested ways to think outside the algorithms, including changing one's Google profile, creating and taming chaos, becoming a digital cosmopolitan, and brainstorming ways to be curators. With these activities, we followed Grabill's admonition to do more than resist and critique the hegemony of algorithms: we suggested solutions to the problem of software limiting our thinking.

## It's Worse than We Feared

In our presentation, we alternated the scholarship, as outlined above and below, with the activities, which will be described in more detail later.

### The Self-limiting Habits of Hurried Citizenship

We ourselves, and the way we use the Internet, may in fact be the biggest limitation of digital use. In the rush of our daily life, we may never venture beyond the news of our own friends and comfortable web sites. As Ethan Zuckerman (2014) suggested and noted above, most of us seldom or never seek out international news or social media, even though a great deal of it is in English (p. 55). Even if there is no language barrier, there can still be cross-cultural considerations. For example, Guiseppe Getto and Kirk St. Amant (2014) suggested four factors for communication designers to consider when developing personas of users in different cultures (p. 34). Similarly, Huatong Sun's Culturally Located User Experience (CLUE) approach (2012) focused on the cultural contexts of specific users and was a significant reference frame for this study. We have chosen both Asian and American participants in order to understand different cultural contexts in which user experience is set with different photo and video apps. Whitney Quesenbery and Daniel Szuc (2012) argued that cultural differences are significantly relevant in many UX projects and that usability is based on differences in the adoption of technology (p. 37). Our habits of hurried citizenships are culturally rather than globally sensitive and therefore limit our understanding of a networked globe and citizenships.

### The Algorithmic Limits of the Internet

Beyond our self-limiting habits of clicking, algorithms are everywhere on the Internet and may be influencing our behavior online and offline. Months before the 2016 presidential election, Robert Epstein (2016), senior research psychologist at the *American Institute for Behavioral Research and Technology* and the former editor-in-chief of *Psychology Today*, suggested that elections could be swayed by Google's search engines. Based on an experiment conducted with Ronald E. Robertson, he concluded that Google can sway opinions based on searches when the results are guided by algorithms that the search giant is constantly—and invisibly—manipulating.

In a similar vein, Facebook was vilified for its possible role in the 2016 presidential election. In May before the election, Jon Keegan (2016), former reporter at *The Washington Post* and senior research fellow at the Tow Center for Digital Journalism, posted a story about Facebook, where viewers could track for themselves the news feeds on eight controversial topics by either red or blue, shown side by side. The comparison is still being updated with different stories on the Affordable Care Act, ISIS, etc.

As the debate about Britain exiting the European Union unfolded last summer, Katharine Viner (2016) asked if truth even existed in the age of the Internet. She wrote on the disruptive influence of algorithms:

> Algorithms such as the one that powers Facebook's news feed are designed to give us more of what they think we want – which means that the version of the world we encounter every day in our own personal stream has been invisibly curated to reinforce our pre-existing beliefs. When Eli Pariser, the co-founder of Upworthy, coined the term "filter bubble" in 2011, he was talking about how the personalised web – and in particular Google's personalised search function, which means that no two people's Google searches are the same – means that we are less likely to be exposed to information that

> challenges us or broadens our worldview, and less likely to encounter facts that disprove false information that others have shared.

After the American election, others faulted Facebook for its lack of responsibility and its claim that it is just a platform for sharing (Isaac, 2016; Perez, 2016). Some went further with their blame. On his blog, Trent Lapinski (2016), who described himself as a technology executive and Bernie Sanders supporter, blamed the election results on "the echo chamber on social media where they [his fellow progressives] were not being exposed to differing opinions or news." Since Facebook and Google are using algorithms, is it not we ourselves who are limiting our knowledge feed?

## The Local Ramifications of Commercial Internet Use

The influence of the digital age may be felt most acutely by local economies. Erik Brynjolfsson and Andrew McAfee (2014) in *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies,* suggested that a major revolution in the way we work is already ongoing. With the doubling of scientific discoveries every eighteen months, they suggest the loss of the middle class is due to Internet superstars dominating the economy (pp. 150–151, p. 62).

Others predict even more dismal futures. Some even claim that half of current jobs may be gone in three years due to technology (Williams-Grut, 2016). These are limitations that are occurring due to our activity on the Internet—limitations that may come back to haunt us when our own profession may be diminished, as Grabill illustrated in his description of the intrusion of Big Data into the field of composition.

But, we as college graduates are exempt, are we not? Brynjolfsson and McAfee (2014) suggested a college premium that results in less unemployment for those with degrees. However, they also point to risks even for knowledge workers as pointed out by linguist Stephen Pinker as early as 1994. In commenting on artificial intelligence and language, Pinker suggested that those with more cognitively based jobs may actually be at the most risk. In *The Language Instinct,* he predicted that gardeners will keep their jobs while professors may not (p. 193). It may be that we as a teaching profession are at risk too, as Grabill pointed out and as other trends suggest.

## The Existential Threats to the Teaching Profession

As Marcia Bost pointed out at the 2015 Computers and Writing, the master class philosophy adopted by some universities at the suggestion of learning platform companies has separated the tasks of teaching. The content expert chooses texts and assignments and designs the class, while others (possibly contingent laborers) interact with the students and grade the papers. The master class philosophy does at least leave intact the class size limitations, which provide numerous jobs to graduate students and contingent faculty. MOOCs call this arrangement into question. Brynjolfsson and McAfee (2014) recounted the story of a MOOC about artificial intelligence. In 2011, this MOOC was offered by Stanford's Sebastian Thrum, father of Google's driver-less car and an authority on artificial intelligence. More than 160,000 signed up, with tens of thousands actually completing the course; the top Stanford student ranked 411th among all those (p. 200). Such crowd-sourcing of learning has the potential, using these enrollment numbers as an example and an average class size of 25, of eliminating more than 6,000 instructor jobs.

The reaction of the academy to MOOCs illustrated Dickens' phrase from *Tale of Two Cities*: "It was the best of times; it was the worst of times." For instance, Nick Carbone (2014) in "Here a MOOC, There a MOOC," saw the benefits of these courses. Since he highlighted those who take MOOCs for their own motivations and not college credit, Carbone suggested that "MOOCs will not kill colleges and universities; those entities require and thrive from granting degrees and charging tuition and fees to earn those degrees" (p. 200). In addition, Edward White (2014) in "MOOCs as Threat and Promise" suggested—based solely on his experience in helping design the Duke University MOOC for first year composition as part of the Gates Foundation—that these open courses will have less impact on traditional college courses than the similar College Board College-Level Examination Program (CLEP) or Advanced Placement (AP) programs (p. 151). However, he did add that legislative bodies might use the existence of

MOOCs to cut college budgets for buildings, faculty, and research if traditional colleges do not defend their programs. Because of problems with assessment and certification of quality, White (2014) thought that "MOOCs cannot and should not certify college credit" (p. 153). The growth of MOOCs, at a minimum, bears watching.

### Even Worst Trouble, Theoretically Speaking

Meanwhile, technology is nibbling at the edges of what it means to write as a human. The first story on the 2014 California earthquake was written by an application named Quakebot, created by *Los Angeles Times* reporter Ken Schwencke. *Future Tense* blogger Will Oremus (2014) also pointed out that the *Times* uses several bots to compose short news reports on routine events like earthquakes and murders. Oremus recounts how these are reviewed and posted by human editors and then these editors assign human reporters to follow up with information about damage and quotes from officials. However, bots have not only been programed to write routine journalism but also scientific papers. Multiple news accounts reported that MIT students successfully used their software to write jargon-laden scientific papers with little actual meaning. Subsequently, Springer and IEEE removed more than 120 works that had been generated by this bot and published. This incident is one of several reported by James J. Brown, Jr. (2014) in "The Machine that Therefore I Am." He also suggested that the process of our becoming machines has been going on for two centuries with rumblings as far back as Erasmus's *De Copia* exercises. While positing that "rhetoric is a collection of machines ('whatsits,' 'gadgets') for generating and interpreting arguments" (p. 496), he argued that all rhetorical action should be viewed as "robotic."

Such views are, of course, accepting the dominance of algorithms without critically engaging them or proposing solutions to the limitations that they impose. Such unthinking dependence on software does not follow Grabill's suggestion that technology should work *with* teachers and not *for* them. He proposed that software that works with teachers would inform, add value, enhance teacher work, and professionalize.

## It's Better than We Hoped

Even in the midst of their dark economic predictions, Brynjolfsson and McAfee (2014) pointed out innovative web sites and applications, including the following: Innocentive—an online clearing house for scientific problems; Quirky—crowd source and filter innovation; Affinnova—evaluate possible solutions; and online data analysis. They also claimed:

> We've never seen a truly creative machine, or an entrepreneurial one, or an innovative one. We've seen software that could create lines of English text that rhymed, but none that could write a true poem ("the spontaneous overflow of powerful feelings, recollected in tranquility," as Wordsworth described it). Programs that can write clean prose are amazing achievements, but we've not yet seen one that can figure out what to write about next. (p. 191)

Thus, any effort to think outside the algorithms must encourage creativity, which is the purpose of the activities that follow.

Even Zuckerman (2014) in his critique of our comfortable digital habits, saw hope in those who serve as bridges between cultures and languages. He stressed the need of personal connection: "We need to stumble on unexpected influences to make novel connections. This means granting some of our attention to curators—human and mechanical—who can introduce us to unexpected influences" (p. 269). He also suggested that we monitor our digital habits and seek new connections through following our interests to unusual venues. As teachers, we in the academy must begin to theorize and practice contextual ways of being a curator. The activities of this workshop began the conversation about how we can be such curators, bringing new connections to thinking outside the algorithms.

We may also be able to make those connections by and through the creation of chaos. In *Forming, Thinking, Writing,* Ann E. Berthoff (1989) suggested that writing teachers should create and resolve chaos. Her activities include brainstorming on a photo, writing a double entry journal in response to

quotes, looking at multiple photos/ drawings and finding a common descriptor (p. 26ff, p. 78–79). Berthoff (1981) also described this process: "The primary compositional modes of amalgamation and elimination begin to operate…. We see in terms of classes and types; everything we see is seen as an example of a kind of thing. Perception is contingent on the mind's capacity for analogizing" (p. 75). She (1981) made the following connection between chaos, composing/ writing and learning: "Composing is forming: it is a continuum; it goes on all the time. Composing is what the mind does by nature: composing is the function of the active mind. Composing is the way we make sense of the world: it is our way of learning" (p. 36). Through the embracing of such chaos, we may begin to make connections beyond those comfortable ones we are given. Only when we acquire such broad knowledge from multiple sources/media/ can we think outside those ubiquitous algorithms.

## Being the Human Factor

In the interactive portion of our workshop, we led activities for going beyond the virtual and the embodied clichés of techné.

## Upsetting the Google Cart: Changing One's Google Profile

Bost shared her experiences with being stalked by commercial websites (whose ads appeared on any website she visited). For example, after she bought a tuxedo for her son to wear in chorus, that store advertisement for tuxedos appeared everywhere she clicked. She revealed that she now clicks on a fabric web site at least once a week so that she is stalked by beautiful designs. A workshop participant shared that she gets all sorts of baby advertisements, which she resents, because she calls her cats "babies" in Facebook posts. We then invited participants to go to a website of a different political persuasion and then search for an issue to see if the feed was different. We quickly realized that five minutes of different surfing would not change one's feed. While most participants were using their own laptops, one participant used the University of Findley's lab computer and pulled up very different results. We theorized that the computer's IP address might be even more critical to one's search results than one's name. We also searched the term "health care" on the Wall Street Journal's web site that tracks different news feeds and compared the results.

## Breaking a Chatbot: Interacting with an Online Robot

Xiaobo Wang shared her experience with a well-known chat-bot on Chinese social media. The Chatbot is female, and her name is Xiao Bing/Little Ice. Wang talked about how she was not aware that she was chatting with a bot at the beginning because Xiao Bing has a profile picture on the Weibo, Chinese Twitter, that looks just like another Chinese girl. According to Wang's experience, the Chatbot is smart enough to compose poems, sing, and chat with human beings on a regular basis. However, Xiao Bing was not intelligent enough to respond some of Wang's questions such as "Do you like strawberries?" She answered, "Yes, I like you!"

We suggested that participants interact with the following two chat-bots using Pinker's (1994) questions: "Which is bigger, Chicago or a breadbox? Do zebras wear underwear? Is the floor likely to rise up and bite you? If Susan goes to the store, does her head go with her?" (p. 192). Those in the workshop posted their own questions to the chatbots and did not think the chatbots lived up to human interactions. One rapidly got into name-calling, with the both the human and the chatbot calling each other a "machine."

Here are links to two Chatbots:
Mitsuku Chatbot
http://www.mitsuku.com/
Cleverbot
http://www.cleverbot.com/

### Exploring Social Media Apps of Other Cultures (Meituxiuxiu and WeChat)

To illustrate how to connect across cultures, Wang demonstrated the steps for creating and using Chinese social media. Firstly, she presented on how the Chinese photo apps such as Meituxiuxiu work. She emphasized the global trend of skin smoothing, whitening, eye enlarging, and other features that may have a negative impact on users/students' behaviors and ways of thinking regarding beauty standards.

> To see some of the most popular global social media apps, go to http://www.smartinsights.com/social-media-marketing/social-media-

Then, participants were invited to download the WeChat app on their cellphones and/or tablets. One of the participants was already using the app to interact with his friends. WeChat is not only a messenger that allows users to chat by sending voice and/or writing messages but also a convenient platform to share moments/posts with images and videos. In addition, it has features such as people nearby, drifting bottle, shaking, and so on to enable real time global communications.

### Stamping the Digital Passport

Due to time constraints, we suggested that participants do the follow-up activity on their own: choose a country they have not previously been interested in and scan headlines for major concerns there for the last month/ year.

### Opening the Floor

In response to the existential threats to both the economy and the profession, we opened the floor for participants to brainstorm additional ways to think outside the algorithms with our students and give pedagogical examples presenters use in their classrooms and interactions with the audience. The floor was mostly silent.

However, Wang previously used the following principles to help her students break out of their digital boxes:

a) Teaching the communication/rhetorical design of mobile apps can help students think about algorithms and how they influence our communication, way of life, and daily behaviors.
b) Exploring photo and video apps help students to use them critically, especially apps that make users' figures slimmer, skin smoother and/or whiter, and other features that would inherently encourage students' unhealthy beauty standards.
c) Comparing technologies/social media/apps among different cultures help students to learn transnational/intercultural/interpersonal rhetoric and communication and can cultivate a culture that is more tolerant, understanding, and compassionate.

Using transnational and comparative perspectives in these ways to look at technological advances may stimulate students' awareness, reflexivity, and sense of responsibility as human beings in an overwhelmingly post-human world.

Bost has also led her students to think critically about their social media use by showing and discussing Shirley Turkle's (2012) "Connected, But Alone" TED talk which problematized texting. She also assigned students to write digital literacy narratives that explore their relationship with the devices that so occupy their time.

## Conclusion

Even though we narrowed our initial focus to the role of algorithms in social media, in our workshop we still found ourselves grappling with a rather unwieldly subject with no easy answers. The first stop to solving our own problems is an awareness of the problem, and we think we have achieved that goal. As this workshop illustrated, algorithms do herd us into smaller and smaller boxes, and it is our responsibility

to be aware of their workings and to creatively mitigate their disadvantages. Certainly, we will continue to write and work on the ways that algorithms impact our interactions with other people. We invite others to join this conversation as well.

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# A New Window: Transparent Immediacy and the Online Writing Center

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In this presentation, I consider the online writing center session through the lens of Bolter and Grusin's theory of remediation. From this perspective, the online writing conference serves as a remediation of a face-to-face, on campus writing conference. I use the concept of transparent immediacy to consider some of the benefits and drawbacks to different modes for online writing conferences, where asynchronous conferencing offers less transparent remediation, synchronous conferencing more transparent remediation, and video conferencing the current most transparent remediation of online writing conferencing. Ultimately, I argue that although transparency can be desirable in the online writing conference to increase the immediacy and presence of the tutor, breaking the transparency of synchronous online writing conferences can be a strategy to encourage students to engage in metacognitive thinking about their writing processes and composing tools. To engage students in this transparency breaking metadiscourse, I offer strategies for conversing about the online writing conference: positioning the remediation as resource, positioning the remediation as process, and positioning the remediation as limitation.

After spending the first ten minutes of an online writing center session getting a student logged into Google Hangouts and pulling up her Drive folder so we both could see her document, the student stopped suddenly and asked, "Wait, can I use this outside of the writing center?" "Of course," I told her. Hangouts isn't licensed through the writing center; she could use her own account to generate links. She continued, "We have a group paper coming up. This would change everything." At the time, I didn't pursue the point further; I thought we'd wasted enough of her time getting set up and it sounded like she had a lot she wanted to discuss. But I wish I had—we could have talked about what would have changed for her group, why composing together this way would have been so different. It could have been a productive conversation about writing process, technology, and their influences on each other.

In an early discussion on working with students in online writing center spaces, Joel A. English (2000) recounted similar stories. He explained that face-to-face writing centers are good at metacognition, at helping students to "describe how and what" they learn about writing processes, while helping them to apply that knowledge to future writing (p. 172). However, in the online writing center, students may be uncomfortable or unfamiliar with the technology used to conduct the session, and so tutors must acclimate students to the new online environment before they can facilitate this metacognitive work. Once students are comfortable working one-on-one in an online writing conference, however, how do we continue to encourage thoughtfulness about composing? And in the mediated space of online conferencing, how do we encourage students to think about their writing processes and goals not only across writing projects but across media? One opportunity for this work is in deliberate attention to the online writing conference as remediation of the on campus writing conference.

In this article, I begin by considering the online writing center conference through the lens of Jay David Bolter and Richard Grusin's (2000) theory of remediation. I then offer three approaches to this strategy of disrupting the transparency of the online writing conference to encourage student metacognition about their writing processes and tools. These strategies include directing students' attention to the resources of the mediated session, asking students to think about the various processes being remediated, and acknowledging the limits of the mediated session. Explicitly invoking these three approaches can push students to think and converse about both the conference and their writing on a deeper level.

## Remediating the Writing Conference

In her article on the role of the Microsoft Word (MS Word) interface in a writing center session, Amber M. Buck (2008) urged writing center scholars and practitioners to pay conscious attention to technology in the writing center, because even the seemingly invisible interface of a word processor can

change moves and outcomes within a session, for better and for worse. It is more difficult to relegate the online conference interface to an invisible backdrop in the session but no less important to consider its effects, particularly in the distance created between tutor and student. Those working in online writing instruction stress again and again how important it is for instructors and tutors to convey a sense of immediacy and presence online (Docktor, 2016; Hewett, 2015). For example, Beth Hewett (2015) has described using first person language and instant message (IM) pinging to connect with students in online writing courses to help the students feel an authentic connection with her. Students responded well, recognizing her as a real, dimensional person in ways they would have otherwise struggled to without the face-to-face contact of an onsite classroom. New strategies were necessary to adapt the feeling of talking about writing with another real person to the new space and technology.

It is this sense of a real, authentic experience—here of a classroom, a writing conference, and a moment of learning—which Bolter and Grusin (2000) argued users seek in, and despite, remediation (p. 53). In their theory, remediation takes place when one medium is represented in another, while trying to achieve an immediate experience of the original (p. 11). In the online writing conference, the remediation is the in person, onsite conference with the print essay as represented through email, text message chatting, video, or other means. One way of achieving an authentic experience and sense of the real, Bolter and Grusin argued, is through a sense of transparent immediacy in which the interface erases itself, minimizing our awareness of the medium so that the experience of the remediated content is as close as possible to that of experiencing the original. It is impossible for the experience to be exactly the same, but the goal is to replicate the experience as transparently as possible. Transparency is not the only way remediation can try to create a sense of real presence; Bolter and Grusin also theorized methods of hypermediacy, in which multiple media are used to recreate the experience, despite thereby highlighting discontinuities between the original and remediation (p. 33). One of the more transparent modes for online conferences might be a video conference, and one of the more hypermediated might be a shared virtual whiteboard with corresponding chat window. In both cases, writing centers attempt to offer students the experience of a conference but choose different ways to remediate the session.

## Transparency and Trade-offs in Choice of Conferencing Medium

When considering options for remediating the writing center conference, synchronous conferencing methods increase transparent immediacy, with video conferencing offering perhaps the most transparent option: the vocal and facial cues the tutor and student might notice when tutoring in the same room can still be communicated. Melanie Yergeau, Kathryn Wozniak, and Peter Vanderberg (2008) demonstrated the importance of having these cues available, explaining that video conferences restore some of the paralinguistic channels of communication like gestures, tone, facial expressions, and emotional cues which get lost when moving to text based media. Additionally, identity based markers of race, gender, or class may be more obviously present in video, cues that some may fear become invisible in media like email (Yergeau et al. 2008).

This is not to say that video mediated conferencing, or even synchronous conferencing more generally, is the best approach to online writing center work. Connie Snyder Mick and Geoffrey Middlebrook (2015) pointed out that synchronous work does increase immediacy and presence, but it is better at this interpersonal work than it is in helping with cognitive dimensions—asynchronous work can allow students more time to be cognitively present, to process information, and to reflect. There are other concerns with the transparency of video conferencing and ways in which it can cause students to struggle as well. Although Yergeau et al. (2008) noted that online conferencing allows students to work from their homes or dorms, comfortable environments that may give them a greater sense of ownership of their texts, it can also allow tutors to peek into students' private lives in ways they would not be able to in a less transparent medium. Additionally, in line with the cognitive benefits identified by Mick and Middlebrook (2015), Beth Hewett (2015) also noted that students may struggle to take in information aurally, to "hear, process, and retain oral advice" (p. 35), a problem that a more transparent method of conferencing would do nothing to alleviate, even with the ability to record or archive sessions.

Ultimately, whether we choose transparent immediacy as our guiding strategy for deciding between modes of communication in the online writing center or not, there will be trade-offs: more time for reflection may come with the cost of a decreased sense of presence, increased privacy with less conversational ease, the addition of facial cues with a reduction in time for processing information. When focusing on synchronous conferencing, which is more transparent than asynchronous methods, it is worth asking a modified version of the question that guided Craig Stroupe's (2003) research in online writing instruction: "What can we do apart that we can't do in the writing center?" (p. 257). One answer to that is to break transparent immediacy strategically to encourage metacognition and reflection. Instead of trying to replicate the in person, face-to-face session as seamlessly as possible, we can emphasize the discontinuities between the two to help students think about what happens in the session. In the following paragraphs, I lay out three strategies for *breaking the window* of the online writing conference: identifying the remediation of the session to students as a resource, as a process, and as a limitation.

## Remediation as Resource

In the online writing conference, regardless of the technologies used to conduct the session, there are different tools at the tutor and student's disposal than there are in the onsite writing center. Presenting the remediation of the writing center as a resource engages students in thinking about how they might make those differences work for them. In thinking about how to increase transfer and metacognition across media and modes of writing, Kara Poe Alexander, Michael-John DePalma, and Jeffrey M. Ringer (2016) theorized "adaptive remediation" (p. 33) to help students increase meta-awareness of remediation and make rhetorical decisions within the multiliteracy center through methods like charting the rhetorical moves of a text, cataloguing available semiotic resources, and linking the literacies required in the current project to past and future literacy needs. These activities draw on prior knowledge across media and encourage students to actively reflect on the processes of remediation and composing as they engage in them. While not a multiliteracy center in the usual sense, as students are most often creating and revising alphabetic texts, online writing centers still engage students multimodally, drawing on multiple literacies as they compose, revise, or reflect digitally with writing center tutors. Directing students to consider the mediated session as a resource opens them to the wonder and tools of the new media in use.

Engaging students in new or unfamiliar technology can be both stressful and fascinating for them, as it was for my student from the opening anecdote who was new to using the video and word processing technology. When they brought reading tablets into the writing classroom, Phoebe Acheson, Caroline Cason Barratt, and Ron Balthazor (2013) noticed that the disruption of the new technology could be "both a stumbling block and a possibility" (p. 288), as students missed the affordances of their old technologies but also discovered new things that would never have been possible in print books, like instantly searching for instances of a particular word. My student, confused and struggling to balance the webcam with the shared document, realized new technologies for collaborative writing. Had we stopped to discuss the new resources at hand, we could have talked about her processes for collaborative writing and she may have not only considered new ways of circulating a shared document, but also developed meta-awareness about the implications of this method of circulation for collaborative writing work.

Even when technologies are familiar, we can help students discover new and useful ways of engaging the conferencing medium in their writing processes. Buck (2008) noticed that when the students and tutors in her writing center used MS Word, they used it to remediate the printed text without considering the changes remediation could introduce to the session, such as the ability to easily visually manipulate paragraphs while discussing structure or use of tools, like the search function to highlight language choices. Hewett (2006) noticed similar tendencies in online conferencing using virtual whiteboards: participants tended to use the conversational chat box rather than engaging the unique affordances and spatial dimensions of the whiteboard for new learning strategies. In moving online and asking students to consider the medium's affordances as resources for their work, the crucial step is in the asking. The activities Alexander et al. (2016) present for adaptive remediation require multiliteracy tutors to raise questions and explicitly engage students in conversation about the mediums and modes they use. It is in

the conversation about the session's remediation and its possibilities for students that students and tutors can increase meta-awareness of the medium and its role in their composing. Positioning the remediation of the session as a resource offers one way to engage students in this conversation, but is not the only approach to considering the relationship between writing center support in person and online.

## Remediation as Process

Drawing attention to the process of technological remediation involved in an online writing conference is another way to increase metacognition. An online writing conference does not spring into existence fully formed; the tutor and student perform actions and do work throughout the session. However, the activities we do in online or digital work are not the same activities we do in nondigital work, even when we call them by the same name. When looking at the language of the online writing classroom, Stroupe (2003) realized that the words of the onsite classroom—discuss, respond, describe, etc.—do not have special meanings online; instead they are remediations of the print and oral culture of the classroom, metaphors based in face-to-face conversation now used to describe activities that have changed through remediation. To ask students to discuss online, for example, Stroupe argued, means that students must engage the genre of discussion but also "project into the electronic environment a familiar conceptual and social grid that doesn't exist there" (p. 266); they must imagine how these activities can happen in new, different spaces. Based on the experiences of his students and in connection with Bolter and Grusin's theory of remediation, Stroupe concluded that one key to online instruction is recognizing the continuities between the different forms of online learning and the way these older and newer ways of knowing and acting through media can be productively combined. The second strategy for meta-awareness in the synchronous online writing conference draws from this move to seek continuity and multilayered similarities across mediums to ask students to reflect on what activities the online writing conference remediates.

While the tasks and activities that take place in an online session may be similar to those in an onsite, face-to-face session, these tasks make take place differently, offering students new ways to experience and participate in these activities. Reading together online is one such activity. For example, in a face-to-face, onsite session, if a student asks me to read his paper silently rather than aloud, he has little opportunity to observe where I stumble or must reread a sentence to understand. However, in a synchronous online session using shared documents I will inform the student that I will move the cursor along as I read, sentence by sentence so he can follow along with me. When I do this, students tend to pick up on my average reading speed, and when the cursor stops moving or takes too long to skip ahead, often they have already jumped back into the conversation, considering the paper from a reader's point of view to identify what made me stumble. Talking about how the student experienced my reading of the paper can bring him to reflect on how an audience member would read the paper, not only through imagining someone interacting with the ideas, but to see another person materially interacting with the text itself. Students are often used to watching others read, reading aloud, and listening to others speak back to their ideas, but through drawing their attention to the way reading online is both similar and different to reading next to each other, and by discussing how these processes are made visible in these spaces, they can begin to think about a real audience and develop more meta-awareness of their project as a text in the world.

## Remediation as Limitation

A third way of breaking with transparency for a new view of the online writing center is by drawing attention to the limitations of the medium. In a reversal of the way writing conferences are usually discussed, Sam Van Horne (2012) made a case for centering the tutor*'s* understanding as the focus of remediation in an online writing conference, with the student helping the tutor to understand, rather than the other way around. He explained that he felt he was seen as a "judge of the text" in his text based synchronous online writing conferences, and he wanted to try to deflect that perception (p. 101). Instead,

he asked students to explain what they wanted help with, then asked them to define those terms, putting the focus of the session on the student's understanding of the terms. For example, if a student came to the session asking for help with a conclusion, he asked the student to explain what she thought a conclusion should do for her essay and would follow up with questions to understand how she conceptualized conclusions. Van Horne used this method to push students just beyond their current understanding, asking questions and planning activities to help the student articulate a slightly more nuanced conception of the rhetorical term or composition process in situations where working with the entire text of the student's document would have been nearly impossible. In his sessions, Van Horne would explain to students that in order to look at a full section of the paper, the instant message program they were using to talk would require students to copy and paste it into the chat window, so it would be difficult to look at the paper all at once. With this appeal to the limitations of the session's remediation, Van Horne not only deflected his authority but also pushed the student to think about the actual processes and goals of writing across situations, engaging them in metacognitive thought about rhetorical concepts and the writing process.

Text based synchronous conferences are well suited to the kind of metacognitive work that Van Horne asks his tutors and students to engage in. Students in a whiteboard session that will not save a record of their chat but will archive their whiteboard drawing space might consider using that limitation to push for a remediation of the project that uses the drawing and spatial resources of the whiteboard instead. Uploading a heavily formatted document to Google Drive can make a mess, which might prompt a discussion about composing in multiple drafts or a conversation about a composer's writing process stages. Raising the remediation of the online session as a limitation may allow tutors to shift the conversation into more metacognitive directions.

## Training Tutors to Break Windows

Things change in remediation. Things are lost, things are gained, and some things just change. While transparency may be desirable at times to build a sense of immediacy and presence within the writing conference itself, downplaying the differences between online writing center work and work in the onsite writing center is not an effective administrative or training strategy. Hewett (2015) argued that a major problem for online instruction is the transfer of instructional theories based in traditional experiences and traditional classrooms without acknowledgement of the ways those spaces have fundamentally shifted in their move online (p. 4). Working in the online writing center requires thinking about the online writing center as a remediated space, not just as a version of the onsite writing center. In their explanation of the importance of online writing support for online writing instruction and guidelines for creating a successful online writing center, Diane Martinez and Leslie Olsen (2015) argued that tutors working online should be specifically trained for online instruction, and especially for the specific type of online conference used. In particular, Martinez and Olsen note that tutors must be prepared for the variety of technological competencies students will bring to the online writing center, and Hewett (2006) recommends training tutors to balance helping students with writing while acclimating them to the technology. Including in tutor training strategies for breaking transparency in ways that encourage metacognitive reflection can help tutors with this balance.

Training tutors to use the remediation of the session as a strategy for helping students think about their writing processes requires actively engaging tutors in discussion about the resources, processes, and limitations of remediation. It would require asking and answering the following questions:

- How does our online writing conference remediate the writing center session? What changes when we move online?
- What resources or tools are available in the online writing center? How can we make use of them with students? In what ways might these relate to students' past and future writing needs?
- What activities take place in a writing center session? How do these activities take place differently in the online writing conference?

- What activities are difficult or not possible online? What conversations can these activities prompt about composing? What can be done instead?

Answering these questions together in tutoring training prepares tutors to raise these conversations with students in the writing center, to encourage students to think about their own composing strategies across writing situations and composing media. Both tutors and students are aware that the online writing center is different from the onsite writing center. Employing these strategies can frame those differences as the opportunity to approach the online writing conference in a way that breaks the transparent immediacy of the online session and instead approaches it from a new window. This engages the online writing center as a remediation, in a relationship to the traditional writing center but still its own entity.

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# Criticism or Community? Breaking the Binary Thinking in Online Writing Classes

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Students in online writing classes often struggle to provide constructive criticism in peer review. Anonymous peer reviews have often been proposed as a solution to that problem, since students may feel more comfortable providing criticism anonymously. Upper-division online writing students were surveyed to see whether they preferred anonymous or named peer reviews. Students largely preferred to receive reviews in which the reviewer identified his or herself so that there could be further communication. However, students also preferred to write anonymous reviews early in the quarter when they were still learning how to give effective criticism. More work is needed to change student attitudes about feedback so that students better understand the value of peer review.

The Conference on College Composition and Communication (CCCC) Committee on Best Practices for Online Writing Instruction's *Position Statement of Principles and Example Effective Practices for Online Writing Instruction (OWI)* states that "Appropriate onsite composition theories, pedagogies, and strategies should be migrated and adapted to the online instructional environment" (2013). These principles specifically reference peer review as a pedagogy that should be migrated into the digital, interactive environment of online writing instruction because peer review exemplifies the kind of learner-centered and writing intensive practices that should be used in all writing instruction. However, executing peer review in an online writing course is a difficult task. Students often undervalue the role of peer review in the writing process. Technology itself can be a barrier to effective online peer review. Also, students may shy away from offering criticism to peers they have never met face-to-face. In searching for solutions to these online peer review problems, many have noted throughout the years the lack of research on what works (Flynn, 2011; Tannacito, 2001). Even in his landmark manual, *Teaching Writing Online: How & Why* (2009), Scott Warnock said, "in perusing books about online instruction, I found that peer review is often glossed over or treated in a page or two" (p. 108).

And yet, despite the difficulties of online peer review and the lack of information on how to get it right, we online writing instructors persist. After all, collaborative learning has a long and important history in writing pedagogy (Bruffee, 1984; Elbow, 1973; Ede & Lunsford, 1990). Plus, there are plenty of benefits to peer review in an online writing course. Students develop a meta-language about writing and write discursively about writing in online peer review (Guardado & Shi, 2007, p. 453; Rubin, 2002, p. 390). Some students find the online environment "non-threatening" as compared to face-to-face interactions with their peers (Guardado & Shi, 2007, p. 445). Sometimes, students even have fun with the process of online peer review process (Liu & Sadler, 2003, p. 218). Perhaps most importantly, students report online peer review as being useful to their revision process (Tuzi, 2004, p. 230).

However, whether or not technology is to blame, many have observed the lack of actual criticism in online or electronic peer reviews. Many researchers have noted that student peer reviewers often overly praise ineffective writing and fail to leave constructive or revision-based comments on their peers' work (Boase-Jelinek, Parker, & Herrington, 2013; Flynn, 2011; Liu & Sadler, 2003, p. 194). Unsurprisingly, in some cases these un-critical reviews led to less revisions made by student writers (Liu & Sadler, 2003, p. 214). Daniel Boase-Jelinek, Jenni Parker, and Jan Herrington (2013) inferred that perhaps the lack of revisions in the student work in an online writing course was due to students' misinterpretations or misunderstandings of a particular writing assignment. When using synchronous chat applications to conduct peer review, Jun Liu and Randall W. Sadler (2003) noted that much of the students' time was dominated by "conversation maintenance," in which students would help each other use the technology rather than actual conversation about their writing (p. 210). Perhaps a

student's lack of confidence as a writer also contributes to a lack of evaluative feedback in online peer review (Guardado & Shi, 2007, p. 458).

Some online writing instructors have argued for anonymous peer review as a solution to this problem of a lack of constructive criticism in online peer reviews. The thinking is that students might feel more comfortable critiquing their peers' work if they can save face and offer that critique anonymously. In fact, students frequently report their preference for reviewing their peers' work anonymously (Guardado & Shi, 2007, p. 456; Tannacito, 2001). However, anonymous peer review is often offered as a solution at the expense of a sense of community in the classroom. After all, how can students get to know one another and foster collaboration if they don't know to whom they are speaking? Ultimately, many instructors are comfortable with that sacrifice of a sense of community. For instance, in Martin Guardado and Ling Shi's (2007) assessment, the benefits of anonymous peer review outweighed the concerns that anonymity may discourage a sense of community (p. 446).

Paradoxically, online students may struggle with peer review precisely because of a lack of a sense of classroom community. In a study of online peer review groups using Henri's framework for interactivity, wherein increased interactivity is equated with increased learning, Huahui Zhao, Kirk P. H. Sullivan, and Ingmarie Mellenius (2014) found that indeed, greater interaction in their online class led to greater social presence and that greater social presence led to greater collaboration (p. 817). Reneta Lanisquot and Christine Rosalia (2015) also found that their students' online peer reviews were stronger and led to more revision when there were more frequent opportunities for interaction (p. 115). Paul Anderson, Becky Bergman, Linda Bradley, Magnus Gustafsson, and Aurora Matzke (2010) suggested that a greater sense of personal connection to their peers would help students develop intrinsic motivation for peer review, since they would be more invested in that peer's success (p. 315).

In my own online writing courses, I too have observed the lack of constructive criticism in peer review. However, the idea that the use of anonymous reviews and fostering a sense of community were mutually exclusive seemed like an overly simplistic way of thinking about the affordances and limitations of an anonymous review. I did not trust that this binary would hold true in all cases—that students would always provide better feedback anonymously or that anonymous peer reviews would always hinder the development of a sense of community. Instead, I was interested in finding out if there were ways to use anonymous peer reviews strategically in an online writing class, perhaps at particular moments in the semester or for particular kinds of writing assignments.

I decided to explore this question by surveying students in an online advanced interdisciplinary writing course I taught at a private university with an emphasis on experiential learning. During the semester that I conducted the survey, I taught two sections of the course with a total of 28 students The class brought together upper-division students from a variety of majors to work together to use their disciplinary perspectives to solve *wicked problems*, or problems that are so big as to require multiple perspectives to solve them. Students in this course completed three major writing assignments, as follows:

1) Fact Sheet about a Discipline. Students completed this assignment individually, creating a fact sheet about their own discipline in order to teach their classmates about that discipline.
2) Literature Review about a Wicked Problem. For this assignment, students worked in interdisciplinary teams to choose a problem to address. Then, students worked individually to do a literature search in their own discipline on that problem. Students then used the genre of the literature review to report their findings back to their interdisciplinary team.
3) Proposal of a Solution. For this culminating project, students work together as an interdisciplinary team to propose a solution to their problem. These proposals could take the form of a policy proposal, a petition, a community proposal, or even a business plan.

Each of these projects went through a vigorous review and revision process, including a first draft that received an anonymous and a named peer review, responses to those peer reviews, an instructor review, and a response to the instructor review before the revision for a final draft. In this process, each student had to write both an anonymous and a named peer review and receive both an anonymous and a named

peer review. After this process, students responded to a brief survey asking them which review they preferred to write and which review that they received seemed most effective.

I also asked students to rate the difficulty of each assignment, thinking that students' perceptions of difficulty may have an affect on which type of peer review they preferred. On a 1–5 scale, with one being least difficult and 5 being most difficult, the average rating of difficulty for each assignment was 3.17, 3.75, and 3.86 respectively. Students also rated the overall effectiveness of the peer review, with each peer review rating hovering at approximately a 4 in terms of effectiveness.

By and large, students preferred to receive reviews where they knew the identity of their reviewer. Across all three projects, 45% of students preferred these named reviews, compared to 30% who preferred the anonymous review and 25% who expressed no preference. Students primarily gave the desire for further communication with their peer reviewer as the reason for their preference for the named review. Students valued being able to follow up with their peer reviewer to ask additional questions or to clarify points from the peer review. However, at times the preference for one review over the other seemed to simply come down to the luck of the draw. That is, sometimes one review was just better than the other. One student observed, "I think that it has less to do with the method and more to do with the reviews themselves—there was only one suggestion from the open review, and it referenced addressing a formatting error." Additionally, there was a significant jump in students who preferred the anonymous peer review for the third and final assignment, which was also ranked as being the most difficult. It was also the assignment that was completed entirely as a team. It may be useful in the future to tease out the relationship between difficulty of the assignment and the preference for the anonymous peer review or to explore the ways in which a collaborative writing project might create a need for an anonymous review.

In terms of students' preference for the type of review they wrote, there was a significant jump between the first and second assignments. For the first assignment, 34% of students preferred to put their name on the peer review they wrote, while for both the second and third project, that number jumped to 53%. This suggests that students became more comfortable with reviewing their peers and perhaps had built up the confidence needed to feel pride in their work as reviewers. The move towards wanting to identify themselves as the reviewer of their peers' text might also suggest that anonymous reviews can be used as an effective stepping-stone in teaching students to give and receive feedback. Using this information, online writing instructors might design assignment sequences that use anonymous peer reviews target specific skills.

Of course, as with any small-scale survey of this kind, the information is far from definitive. We can only take the hints that these data provide and try new strategies for teaching online peer review. Indeed, new strategies are needed because the issues with a lack of criticism in online peer review persist. As one student in the class surveyed put it:

I think it's the same issue with all the peer reviews. People are still not honest enough. I think they are more honest though through the internet than if we actually had class and we would face each other; however, in the end people are still too afraid to really write what they think, myself included. I wouldn't have the problem if I had to do a peer review for a good friend. I don't blame my peers, I blame the system. We have to be taught when we're very young that it's ok and even helpful to criticize everything that we encounter in a respectful way, without being afraid.

Perhaps what this project really shows is the need to educate students on the writing process itself. Students, it seem, have an agonistic understanding of the process of giving and receiving feedback. Rather than understanding feedback as collaboration and as a part of what it means to work in a community of writers, students have only negative associations with having their work critiqued. It may indeed turn out that it is less about having either community or criticism but rather than one needs community in order to have criticism.

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# Crossing Wires with Google Apps: Jumpstarting Collaborative Composing

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This paper presents results from a multi-year, two-school combined study of student attitudes toward the use of Google Apps for Education (since renamed G Suite for Education) for collaborative composing in first year composition classes. Preliminary results suggest that remediating the composing process as collaborative, convenient, and cloud-based in Google Docs via Google Drive resulted in a remediation through reform of traditional composition pedagogy.

First-year writing classes allow composition teachers to introduce or re-introduce students to genre as social activity (Miller, 1984, 1994) and composition as part of the rhetorical situation. Teachers combine pedagogical techniques with available technologies to teach composition as a social function. Composition texts and theory focus on writing as a social practice (Bazerman, 1994, 2004; Bruffee, 1984; Gaillet, 2009; Miller, 1984, 1994), but students often see themselves as writing independently for their teachers (Sommers, 1980; Yagelski, 1995). Identifying and critically examining and testing technologies that can be used with constructivist pedagogies to demonstrate the benefits of composing in social environments can be difficult and time consuming for composition teachers and researchers alike.

One such technology is Google Apps for Education (renamed G Suite for Education since conducting this study). Two applications in particular, Google Docs and Google Drive, enable cloud-based, granular file sharing along with synchronous and asynchronous collaborative composing. Among the collaborative features embedded in these applications are synchronous group composing and commenting, capabilities that are not offered by other word processors or file sharing services. Composing practices made possible by these Google applications enable and encourage a writing experience that reinforces students' social composing experiences.

This paper summarizes results of a multi-year study conducted by Maury Elizabeth Brown (Germanna Community College) and myself of students' attitudes toward using Google Docs and Google Drive for composing in two first year composition environments: rural campuses of Germanna Community College around Fredericksburg, Virginia, and the campus of the University of Richmond School of Professional and Continuing Studies in Richmond, Virginia. We used a mixed-methods survey that collected quantitative and qualitative data. This paper reports out a subset of data collected between 2013 and 2015 to demonstrate ways that critically incorporating Google Apps for Education into the first-year composition classroom resulted in remediated pedagogy, student, and instructor roles and activities. Following reflexive, iterative coding practice (Sullivan & Porter, 1997; Cresswell, 2016), we found the following themes generated the largest number of total comments: privacy (positive value), accessibility (positive value), feature comment, and collaboration (positive value).

The survey was designed to capture students' end-of-term reflections on the effectiveness of Google Docs for composing and their attitudes toward using Google Docs and Google Drive as the exclusive tools for composing, including invention, drafting, revising, finalizing, submitting, and reviewing. Both of us required that work on major compositions be completed in Google Docs and shared, with the instructor and with classmates or a group of classmates, from start to finish. That is, we asked students to brainstorm in Google Docs shared with the instructor and/or fellow students; to take notes and compose drafts in shared documents; to conduct peer reviews in Google Docs using Comment and Suggesting features; to submit drafts for grading to the instructor as shared Google Docs; and to review instructor feedback in the shared document as well. Our decision was based in part on our own personal and professional experiences using Google Docs for collaborative composing, in part on our pedagogical interest in engaging early college writers in explicitly social composing practices, and in part on our research interest in understanding the way digital affordances influence student composing practices. Although we collected data about peer editing, the focus of our study was on the effectiveness of Google Docs and Google Drive for composing, not specifically on peer review or collaboration processes or methods.

Narrative responses to questions related to the effectiveness of Google Drive were collected in the survey. Questions included a quantitative question followed by a qualitative prompt inviting a narrative elaboration on the quantitative response. Only the narrative responses to the qualitative prompts were coded for the purposes of this study. The survey addressed the *effectiveness* of Google Drive.

- Will you continue using Google Drive after leaving this class? Why/why not? What factor or factors affected your decision?
- Has using Google Drive in the class affected your attitude toward "cloud computing" (saving, accessing, and sharing files and folders online, not on/from your own hard drive)? Why/why not? What factor or factors informed your response?
- What would you consider the most important benefit of using Google Drive in a composition class? Why? What factor or factors contributed to this selection?
- How would you rate your experience using Google Docs this semester? Why? What factor or factors contributed to this rating?

The survey also collected information on participants' attitudes toward Google Drive by asking the following questions.

- What did you LIKE about using Google Drive in the classroom this semester?
- What did you DISLIKE about using Google Drive this semester?
- How did you feel knowing that others in the class could read your papers?
- What was the EASIEST part of using Google Drive?
- What was the most DIFFICULT or most CONFUSING part of using Google Drive?
- How did using Google Drive change your composing/writing process?

The narrative responses collected from these questions, upon iterative analysis seeking recurrent themes, resulted in the following codes and categories.

- Transferability
- Usability (which included neutral, positive, and negative positions)
- Privacy (which included neutral, positive, and negative positions)
- Relation to Other Tools
- Accessibility (which included positive and negative positions)
- Collaboration (which included positive and negative positions)
- Cost
- Writing Process
- Feature Comment

One theme that did not emerge from coding was the term or concept "social" or "social composing." We chose not to address directly the concept of social composing in the survey to test if the concept emerged in other ways. We saw evidence that social "flow" between participants was valued through respondents' positive values in the Collaboration code, in positive values in the Privacy code, and in the Transferability code, as it relates to using the technology as inherently shareable in (presumably) group- or team-based settings within and beyond the class.

A total of 107 participants voluntarily responded to the survey in the timeframe of this study, coming from seven different Germanna Community College sections and two different University of Richmond sections. Response rates were calculated by question since all questions were not required, ranging from the lowest response rate of 59% to the highest response rate of 85%. Based on the number of responses related to coded categories, the following themes generated the largest number of total comments: privacy (positive value), accessibility (positive value), feature comment, and collaboration (positive value).

**Privacy.** We used the Privacy code to represent some level of concern about the privacy of data. Privacy was often closely related to accessibility; frequently accessibility was considered positive while privacy was considered a concern, sometimes within the same respondent's answers. The code addresses transparency inherent in the shared composing space. The positive value of Privacy was coded in 49 responses (45% of total Privacy-coded responses) to a single question, "How did you feel knowing that others in the class could read your papers?" For comparison, the negative value of Privacy was coded in

22 responses (20% of Privacy-coded responses) to the same single question, while the neutral (neither positive not negative) value of Privacy was coded in 38 responses (35% of Privacy-coded responses) across several different questions.

**Accessibility**. We used the Accessibility code to represent the ability to access files from multiple locations and platforms, and to reliance on an internet connection for access. This code was generally, although not always, related to Google Drive being a cloud-based platform. The positive value of Accessibility was coded in 57 responses (80% of total Accessibility-coded responses) to several different questions. For comparison, the negative value of Accessibility was coded in 12 responses (17% of Accessibility-coded responses) to several questions, while the neutral value was coded in 2 responses (just 3% of Accessibility-coded responses). Accessibility was valued as overwhelmingly positive among responses coded for Accessibility.

**Feature Comment**. We used the Feature Comment code to represent a broad variety of comments on Google Docs and Google Drive features, including security and reliability. Responses coded for Feature Comment generally identified and commented on a specific feature that was not coded as Collaboration or Privacy. Comments were about the experience of using the tool itself. The Feature Comment theme was coded in 74 total responses, 34 (46% of Feature Comment codes) in response to the question "What was the EASIEST part of using Google Drive?" Another 10 responses (14% of responses coded for the Feature Comment theme) were in response to the question "What did you DISLIKE about using Google Drive this semester?"

**Collaboration**. We used the Collaboration code to represent the ability to share resources, give and receive feedback, participate in peer review, and participate in a discourse community that often included the instructor. While the themes of Privacy and Accessibility contribute to responses related to social flow in use of the tool, we take the Collaboration code to most directly represent the functional aspects of social composing. The Collaboration theme with a positive value was coded in an overwhelming 137 total responses (86% of all Collaboration-coded responses). For comparison, no responses were coded neutral for Collaboration, while only 23 responses (14% of all Collaboration-coded responses) were coded negative for Collaboration.

Data coded for analysis came from qualitative responses to the mixed-method survey. We used iterative coding passes to arrive at the four themes listed above. The first pass yielded 14 codes. Not all responses were coded; those that contained aberrations, such as random text, inane responses (like "blah") or less meaningful responses ("no," "yes," "idk"), were removed. A second coding pass revealed the opportunity to collapse codes into nine related, or partially related, categories. From these categories, based on larger numbers of comments, we settled on the four themes noted above: Privacy, Accessibility, Feature Comment, and Collaboration.

A recurring concept among participant responses related to Collaboration was an appreciation for peer review and its results. Among those responses, the following stood out as particularly significant.

- "I could get feedback from teacher and peers about my paper."
- "The ability to read other people's stuff and get feedback from other people."
- "The ability to collaborate with my instructor and classmates on one document."
- "Being able to peer review others work without the pressure of time in the classroom and distractions."

Given the overwhelming number of responses related to Collaboration with a positive value, these and other results suggest participants found useful, even likable, the activities of peer review: receiving feedback from their peers, giving feedback to their peers, and involving the instructor in peer review. It's worth noting the three areas of focus that emerged in comments related to Collaboration. Participants commented on their *own participation* as writer and as reviewer, on their *peers' participation* as reviewers and commentators, and on the *instructor's participation* as collaborator when they provided responses coded to the Collaboration theme. We interpret this recognition of three areas of focus in peer review—self, peers, instructor—to be integral to students' growing understanding of composing as a

social process. A selected list of comments coded Collaborative, categorized by areas of focus (self, peer, or instructor), provides a broader picture of participants' recognition of composing as a social activity.

Our expectation, given so many comments about collaboration, was that having students use these tools for all composing activities—including peer review—would reinforce the social nature of composing and help students recognize, perhaps appreciate, the collaborative affordances of the technology. We did not achieve this universally. On the contrary, we received a number of negative comments about the technology and its use for collaboration. Participants reported frustration and difficulty with: Setting up and starting to use Google Drive; Managing files and folders in Google Drive; Learning what the buttons and icons represent; Opening files in the right folder; and the lack of advanced features often available in computer-based applications. And one student said what several students clearly felt: "I did not enjoy some of the collab work we did in class. In fact some of it was actually annoying to have others on the same document you were working on."

However, several of the comments demonstrate that something more than appreciation for collaboration and peer review was at work in their experiences. Specifically, Google Docs as tool and medium appeared to be the root of their appreciation, and their appreciation for the process of peer review appeared to reside in the collaborative technological affordances themselves. For example, the response "I liked that I was able to peer review at home and receive comments on my paper online, so that I could go back and revise my paper" indicated that making a paper available online "in the cloud" for review at the reviewer's chronological and spatial convenience was valued by reviewers. And the same reviewer, who also wrote and posted a paper for peer review, valued the ability to post the paper for review and to receive feedback in the same document where revision would occur. While this process could be done asynchronously in a Microsoft Word or other word processing document posted to a Learning Management System (LMS) or Dropbox-like cloud storage space, achieving the level of convenience and seamlessness for writing and reviewing in the same document is unique to Google Docs in Google Drive.

Similar responses reiterate the value of drafting, reviewing, and revising in the same document. For example, another participant shared that "I like that I can peer review with classmates online instead of commenting [sic] on their real paper." The term "real paper" refers to print on paper, while the concept "peer review with classmates online" represents the specific affordance provided by Google Docs of commenting on the paper itself within the word processing interface, either by adding suggestions or commenting on specific words or phrases. Another explicitly commented on the single interface in valuing "the ability to collaborate with my instructor and classmates on one document."

More complexly, another participant valued "Being able to peer review others [sic] work without the pressure of time in the classroom and distractions." This comment articulated several aspects of the peer review process: that completing it in a traditional face-to-face classroom must be done within a particular time-frame in a specific place that can be distracting; that the ability to complete peer review outside that environment removed constraints of time and space in completing the review; and that the presence of the document to be reviewed in the always-available interface made the process somehow more convenient. Shifting the processes involved in composing, including peer review, to Google Drive effectively expanded the boundaries of the composing experience beyond the walls figurative and literal, chronological and spatial—of the face-to-face classroom. Peer review involved multiple students, all of whom could access the Google Docs draft in Google Drive beyond the time and place of class, could add comments to others' drafts, and could receive others' feedback in their own drafts that could then be directly incorporated and resolved in the same interface and document. Such activity represents what Bolter and Grusin (1995) referred to as *remediation for reform*, in this case reform of both the time-space structure of the classroom to make "a good thing even better" (Bolter and Grusin, 1995, p. 351) and reform of the reality of peer review, from a paper- and writer-centered classroom-based experience to a virtual process of collaboration.

Additional responses about the value of collaboration point to an even deeper remediation of self and identity as described by Bolter and Grusin that happened as a result of shifting composing practices into Google Docs via Google Drive. Self, peer, and instructor—the three areas of focus mentioned earlier—were engaged as equally valued collaborators in the collaborative process of composing. Consider the

following comments as they articulate the relationship of self (as writer), peers (as reviewers), and instructors (as reviewers) to one another. "I could get feed back from *teacher* and *peers* about my paper"; "Sharing documents, ease in commenting *to* and *from peers* and *professor*"; "Sharing with *my teacher* to revise *my* essays"; "the *collaboration* with *my professor*"; "the *peer* review and comments from *our professor* were extremely helpful and much appreciated"; "Commenting with *my teacher* and fellow *classmates*. Seeing *other people's* opinion on *my work*" (all emphasis added). Each of these comments represents value found in collaboration among self, peers, and instructor using Google Docs via Google Drive. Since sharing permissions were set so instructors and peers alike were able to review drafts as works-in-progress throughout composing activities, composing was not simply collaborative: it was inherently collaborative and inherently involved all three areas of focus as collaborators in producing compositions.

If peer review was conceived by participants as happening beyond the boundaries of the classroom through remediation as reform, we argue that instructor and student identities were also extended beyond standard boundaries and roles through the remediated experience of composing in Google Docs and sharing via Google Drive. Instructors and peers alike collaborated with students on their drafts; participant responses indicated little qualitative difference between the feedback offered by peers and that offered by instructors. We suggest that the remediation of the composing process as collaborative, convenient, and cloud-based in Google Docs via Google Drive resulted in a remediation through reform of traditional pedagogy. While we can't discount the role of power dynamics at work in our classrooms, and the likelihood that some of the responses to the survey instrument represented a desire to please the instructor, we also can't deny ways respondents treated instructor and peer as equally active collaborators in composition. We believe that perception of equality—the remediated roles of writer, reviewer, and instructor—emerges as a result of using Google Drive for collaboration and composing.

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# Between Fear and Astonishment: The Rhetorics of Wearable Technology

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This paper addresses the rhetorics of pervasiveness, privacy, and control in a time of wearable technology. By parsing the popular narratives about monitoring activity through wearable devices, pervasive data collection, and big data analytics, I highlight what we can learn from the development of this technological innovation. I argue that current narratives have hinged on the spectrum of fear and hype, whereas the impact of wearable technologies goes beyond that binary. With an eye toward its implication for composition pedagogy, I examine a few affordances and limitations of wearable technology in education and provide a call to action for how we could go about teaching writing with emerging technologies. I offer some instances of wearables deployment in the writing classroom as a way to demonstrate their usefulness.

Wearable technology became a hot catchword when Fitbit released its first wrist-worn device, the Fitbit Flex, in late 2013. It was the same year when Google released a beta version of its overhead mounted display device, the Google Glass (Explorer Edition). With surging interests from enterprise and consumer markets alike, wearable technology was soon hailed as the next cultural phenomenon (Cecchinato, Cox, & Bird, 2015). More fondly known as wearables, these embodied devices embed computational ability into objects we can carry on ourselves to perform tasks and track our behaviors (Pedersen, 2013). In a recent *Rhetoric Society Quarterly* special issue on rhetoric and wearables, editors Catherine Gouge and John Jones (2016) defined wearable technology "inclusively as those technologies, electronic or otherwise, whose primary functionality requires that they be connected to bodies" (p. 201). Similarly, in a *Computers and Composition Online* webtext, wearables have been identified as "hybrid, network-enabled devices that can be worn on or in the body, that are integrated with the user's everyday life and movements" (Duin, Moses, McGrath, & Tham, 2016).

Wearables have managed to draw public attention, partially because of the cyborg potentials they promise (see Figure 1), but also because of the dystopian images such technology paints regarding privacy (Figure 2). The impact of the exchanges concerning public and private information is worth noting. Early in 2015, Google announced that it would stop producing the Explorer Edition of Google Glass (Luckerson, 2015), signaling one of the first industrial responses to the overwhelming public pushbacks against a device perceived as obtrusive. This article identifies the common narratives related to privacy and control in the use of wearables, and scrutinizes the ideas of surveillance, information ownership, and the rhetorics of pervasiveness in a time of ubiquitous computing. More importantly, I aim to highlight the impacts of these on composition pedagogy.

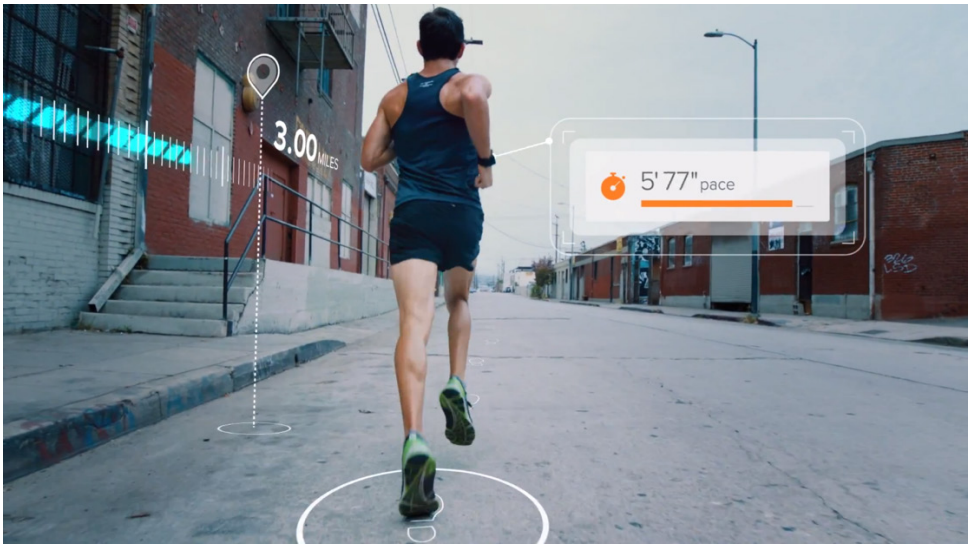


Figure 1: Screen capture of a Fitbit Surge commercial on YouTube (https://youtu.be/J3S3cNv0ntE).


Figure 2. Screen capture from Mashable's YouTube parody of a Google Glass commercial (https://youtu.be/FlfZ9FNC99k).

## On Privacy, Control, and Corporations

Here is a case of wearables many of us may have heard of recently. In January 2016, Oral Roberts University (ORU) of Tulsa, Oklahoma, garnered media attention from all over for their latest institution-wide fitness program that requires incoming freshmen to wear Fitbit trackers to record 10,000 steps per day, with the information being made available to faculty members (Oral Robert University, 2016). As we would expect, there have been mixed reviews on this kind of integration—some say it is outright unlawful, while others think the integration was impressive. Critics of this program question the boundaries of student privacy (Allen, 2016; Irvin, 2016). What counts as public and what counts as private information? When it comes to student analytics, what's personal and what's open for sharing? Although there are federal regulations such as Family Educational Rights and Privacy Act (FERPA) and Health Insurance Portability and Accountability Act (HIPAA) in place, privacy is still an arguably vague concept for higher education due to its multi-layered definitions (Kotsios, 2015). The social constructedness of privacy—that our definitions of privacy are relative to the social conditions surrounding the issues we apply to such definitions (Nippert-Eng, 2010)—makes it difficult for administrators, faculty, and students alike to truly grasp the edges of privacy. While some think that student physical movement or campus mobility patterns are public data, others argue that these data reveal certain student behaviors and identities, and thus should qualify as confidential information.

The increasingly blurred lines between the personal and the public make for intriguing instances for scholars to critique and investigate wearables (Eaddy et al., 2004; Michael & Michael, 2013; Profita et al., 2013). Amidst these arguments is the growing dichotomy of trust and skepticism. And wearables become the scapegoat in between the binary. Those who trust that their personal data remain private tend to think they have control over what's recorded or tracked, aggregated, and shared by their wearable devices; those who on the other hand are skeptical about the security of their private information believe that Big Brother is collecting their data and using those data for commercial or other profit-making purposes (Zuboff, 2015). While these assumptions are seemingly true, the reality of wearables might be somewhere in between—in a grey area where users do have some form of control over what data their devices could collect but at the same time are subject to the reality that these data could serve more than just as aggregated intelligence. Wearables enterprises and the marketing firms they cooperate with can extract quite a bit of useful clues from the big data generated by the millions of users—regionally or worldwide—to create targeted services for specific demographics. Certainly, these corporations could also use the collected data to study social behaviors and tendencies, which might aid in the creation and selling of their next profit-generating consumer products and services.

This is true, at least, if we only consider businesses as profit-driven organizations that have little or no concern for the social well-being of people. The current scenario, however, is one that's more reassuring. With a growing emphasis on corporate social responsibility, many wearables and emerging technology enterprises—such as virtual reality and augmented reality headsets, medical devices, fitness trackers, and so on—are partnering with nonprofit or public institutions, like education, journalism, and social outreach, to improve quality of life through technology. Tech giants like Google and Microsoft are seen teaming up with schools and universities to co-create educational programs that seek to enhance student and teacher experiences by using new wearable devices. At our institution, the University of Minnesota–Twin Cities, we were able to secure an internal grant and partnership with Google when Google Glass was released to pilot different pedagogical frameworks for teaching with wearable computers (Duin et al., 2016). Besides the feedback Google received from our teacher-researchers, no other student data were shared with the company (we have worked to ensure that our file-sharing system is separate from Google's Explorers open cloud server). This instance, I observe, is one that breaks from the common presumptions of profit-driven corporations. Another example is from Microsoft. As part of their roll-out of the upcoming holographic mixed-reality headset, Microsoft has partnered with Case Western University to reimagine anatomy lessons (see Figure 3).

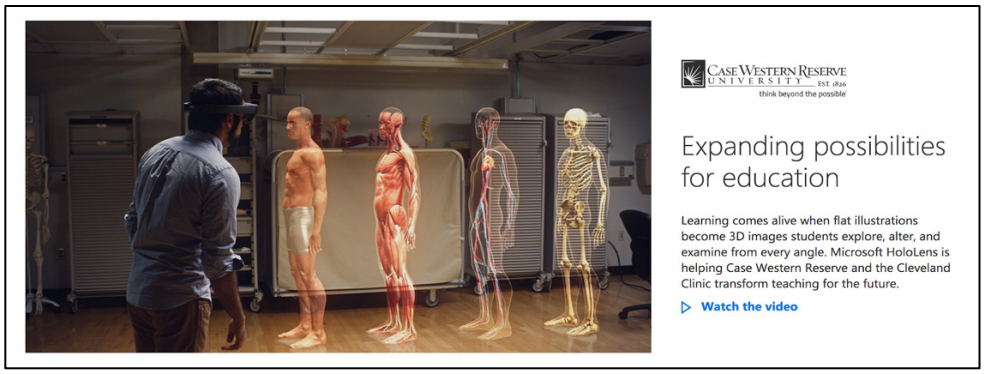


Figure 3. Microsoft-Case Western educational partnership. Screen capture from Microsoft HoloLens website (https://www.microsoft.com/microsoft-hololens/en-us/hololens-commercial).

## On Surveillance and Sousveillance

The narratives on the pervasiveness of wearable technology often lead to discussions of surveillance (Mann, Nolan, & Wellman, 2003). More plainly, we are concerned with the always-on cameras and recorders that would capture our likeness and actions with or without our acknowledgment. Undoubtedly, it's easy for users to surreptitiously take photographs or record video or audio files using a smartwatch or smart glasses. Covert capture of videos and images of sensitive areas, as well as confidential information, is a very real concern. I recall personal anecdotes from members of my research group that their friends and family members would not allow them to wear a pair of Google Glass while in the company of others unless it is previously communicated and agreed upon. Given the speed with which wearable computers are being adopted and proliferated in various aspects of our lives, we can only look forward to a day when we no longer could ask another user to remove their wearables simply because we don't feel comfortable being a subject of the potential recording. It would be akin to asking a random smartphone user on the street to not use his or her phone in the open because you're uncomfortable with the fact that it's capable of recording you in the background.

In today's open society, everyday citizens assume freedom to express themselves in public domains but also want to be left alone in particular moments when they are not fond of being monitored. Critics argue that we live in a time where we are constantly watched, in one way or another, and there's no

escaping of this reality (Lyon, 2001). On open streets and public squares, we are under the surveillance of traffic and city-owned cameras. In banks, airports, retailers, and businesses, we are again under the lens of closed circuit recorders. Each time we use a credit or loyalty card to make a purchase, our activities are documented. Even in the comfort of our own homes and personal workspaces, we are monitored by computers and phones. The websites we browse, the channels we watch, the emails we send, the keystrokes we enter… up to the conversations we have in the presence of these devices, can be recorded for tracking and data mining purposes.

The rise of wearables gives us the ability to watch and watch back through sousveillance, a juxtaposition of surveillance (Mann, Nolan, & Wellman, 2003). Sousveillance denotes bringing monitoring from high-up architectures—metaphorically and literally—down to the human level. In other words, everyday citizens can now be walking/traveling surveillances themselves with the help of wearable devices such as the new Spectacles by Snapchat and lifelogging cameras like the Sony Xperia Eye. These wearables use sensors to detect faces, smiles, and moments of interest. Common narratives for the use of these wearables revolve around freeing the wearers from holding or staring at a screen so they can regain the experience of staying connected with the real world. While the seamless interfaces of these wearables highlight the benefits of not needing to interrupt any moment with a glaring hardware, it downplays the fact that these devices are now omnipresent and can be used to monitor or spy on others. Steve Mann and his colleagues (2003) argued that this "inverse surveillance" makes for a new system of observation where "individuals now can invert an organization's gaze and watch the watchers by collecting data on them" (p. 336). They elaborate:

> Wearable computing devices afford possibilities for mobile individuals to take their own sousveillance with them. Given this frequent sociophysical mobility, it makes sense to invent forms of wearable computing to situate research devices on the bodies of the surveilled (customer, taxicab passenger, citizen, etc.). The act of holding a mirror up to society, or the social environment, allows for a transformation of surveillance techniques into sousveillance techniques in order to watch the watchers. (p. 337)

This transformation, while fearsome to many, creates new sociotechnical dimensions in composition and communication wherein our bodies become the subject that's subjected not just to scrutiny and quantification, but to subjective use for monitoring of others. Under this circumstance, we use our bodies not just as representations of our messages and meanings, but as an agent of vigilance for ourselves and others.

## On Big Data, Wearable Computing, and Learning Analytics

Another hype around wearables concerns big data. Wearables provide continuous data collection that can lead to generation of big data (Greengard, 2015; Neff & Nafus, 2016). Big data analytics turn collected data into actionable insights for future services and products. With millions of users actively using and logging activity data (see Fitbit, 2017), and sharing them to cloud servers, companies get lured into mining these data for behavioral trends, activity of places or hotspots, verging fad, and even public opinion of some sort, just to name a few. In healthcare for example, medical and pharmaceutical companies can tap into these activity databases to study a certain population's exercise rates, diet choices, and other lifestyle factors that can help them develop health solutions that might appeal to the specific population of users (Varshney, 2003; Rutherford, 2010; Page, 2015). In sports, wearable analytics can quantify player movements and live actions, enabling smarter decisions from coaching staff (Chi et al., 2005; Rutherford, 2010). They can also enable predictions of player performance and provide insights on injury prevention and recovery time. And in education—Plato forbids—wearables are already proliferating inside and outside the classroom. With ORU setting a considerably radical precedent to wearables integration in higher education, we are seeing more analytical programs being designed and deployed to study student behavior, engagement level, and program assessment (Borthwick, Anderson, Finsness & Foulger, 2015).

Those who see wearables as valuable in a learning environment contend that these technologies can serve as personal learning tools with which students can access information on-the-go (de Freitas & Mark, 2003; Ponce et al., 2014). Aside from retrieving information, students may also use wearables to engage with instructors in different ways—through gestural input and tactile feedback, for example. Wearables enthusiasts argue that this enhancement of instruction through differentiation allows for universal design of learning, where students may experience personalized learning and more accessible instruction. Wearables may be used to help students see better, hear better, and participate more meaningfully in the learning process (Borthwick et al., 2015). Also, given the connectivity these devices afford, students may easily communicate with their peers and instructors, making learning a truly social and interactive activity.

On the one hand, wearables are valued as an asset that can enhance education. On the other, critics question the true intentions of integrating wearables in education, suspecting that the safety of students might be compromised. At the physical level, the proximity of the devices to the human body may cast danger to the user's health. For instance, the Wi-Fi connection on Google Glass measures 1.42 on the Specific Absorption Scale, a scale that determines the rate at which energy is absorbed by the human body when exposed to a radiofrequency electromagnetic field, and this is a level that is uncomfortably close to the maximum of 1.6 (Moskowitz, 2014). What's more, critics argue that there are holes in administration of wearable devices in an educational setting since the security of data gleaned from wearables is hard to guarantee. Schools and higher education institutions must comply with extensive legal requirements. When it comes to data storage and sharing, local districts need to negotiate the use of the data with and without parental permission, and need to treat the cloud vendor as if it were housed in-district (Brickman & Goelitz, 2014). Lastly, on interpreting student big data, critics worry that analysts may draw inaccurate inferences about students based on aggregated data. When examined apart from the in-situ context of learning, data analysts and education researchers may find student behaviors to be out of norm since academic big data do not usually contain contextual information such as cultural diversity, socioeconomic factors, and other student differences (boyd & Crawford, 2012). Given all these, the implementation of wearables is more often than not seen as a disruption rather than support for education. Yet, this does not mean that wearables have nothing good to offer to the classroom. Time and again, rhetoric and writing teachers find themselves at odds with new technological integration in the classroom, and scholars of computers and writing have consistently shown us that progress requires that we embrace both the risks and rewards of new technologies. While wearables might come across at first as invasions of privacy and distractions, their functions and features can be used to enhance learning. The next section includes some of these possibilities.

## Implications for Composition Pedagogy: A Call to Action

I aim to demonstrate in this writing that popular rhetorics around wearables today have been about fear of privacy invasion and loss of control over personal information, as well as the hype around shiny new devices. However, these narratives don't take us far into the true implications for pedagogy. As of this writing, I have seen little evidence in scholarly literature that wearables work or otherwise for higher education purposes. The use of wearables in education is currently uncharted territory (Rogers, 2003). Elsewhere, I write with my colleague that emerging technologies such as wearables and other reality augmenting devices call for an expansion of digital literacy in the composition classroom (Tham & Duin, forthcoming). We are now at a time dealing not just with print hypertexts or screen-based visuals, but also with immersive contents that require our understanding of experience design and architecture, data analytics, and contextual awareness for privacy and identity security. As scholars of computers and composition, we need to move beyond the narratives of fear and hype, into critical examination of the use of wearables and emerging technologies inside and outside the classroom. Adding to digital literacy, we have the obligation to helping students identify the risks and rewards of wearables in their learning and personal development, and how they might behave as active and ethical citizens in monitoring and protecting themselves and others.

From my own experience working with and deploying these technologies in composition and technical communication courses, I have learned that students are becoming more and more comfortable with emerging technologies—even with the ones they have not experienced before or those with which they lack functional literacy—such that they are willing to try out new devices as part of their learning (see Figures 4 & 5). For instance, in Fall 2015, my students had tried using Google Glass to enhance their peer review activities. Responses from the students showed that students were not afraid to handle a technology that was brand new with little to no instructions on using it for educational purposes (Tham, 2017). Similarly, students in my Spring, Summer, and Fall 2016 writing courses have tinkered with Google Glass and Google Cardboard to learn about visual-digital rhetoric, the rhetorical situation, and audience analysis. In Spring 2017, students in my advanced rhetoric/writing course—Rhetoric, Technology, and the Internet—had spent the whole semester investigating emerging technologies such as HTC Vive, Apple Watch, and Google Cardboard as ways of understanding the rhetoric of reality in virtual, augmented, and mixed simulations, and how that reality affects the way we compose and communicate.

Figures 4 (left) & 5 (right). Students tinkering with Google Cardboard and HTC Vive in an advanced writing/rhetoric course.

The willingness of students to explore new tools present an opportunity for us to integrate low-stakes activities as a way of teaching rhetoric and writing. Our experience tells us that integrating wearables like Google Glass for writing in the classroom challenges conventional writing instruction and learning practices (see Tham, McGrath, Duin, & Moses, 2016 for sample assignments). Students begin to consider and employ modalities other than their immediate textual and visual resources—using gestures, space, and other combined modes—to communicate ideas. Writing, as we know it, is critically examined and employed as a means to expression, presentation, and argumentation that is not restricted by the alphabets. As instructors, we have become more aware of the affordances of wearables in enriching the writing experience and are pushed to be more creative in designing learning activities that help students see the values—as well as limitations—of new composing devices.

To that end, I echo Clayton Christensen's (2013) approach of disruptive innovation—where innovation begins "with a perceived need or desire, a vision, and latitude to explore possibilities" (Borthwick et al., 2015, p. 91). This ground-up approach to adopting new technologies in any given sector—such as education—does not rely on hype but rather intrinsic motivation for exploration. I believe that we are on the brink of something new with wearables and higher learning; therefore, I contend that researchers should seize this opportunity to further investigate teaching with new technology and not get stuck at fear or mere astonishment over wearables.

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# Creating Space: Building Digital Games

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Studies of games, rhetoric, and pedagogy are increasingly common in our field, and indeed seem to grow each year. Nonetheless, composing and designing digital games, either as a mode of scholarship or as a classroom assignment, has not seen an equal groundswell. This selection first provides a brief overview of the existing scholarship in gaming and pedagogy, much of which currently focuses either on games as texts to analyze or as pedagogical models. While these approaches are certainly valuable, I advocate for an increased focus on game design and creation as valuable act of composition. Such a focus engages students and scholars in a deeply multimodal practice that incorporates critical design and computational thinking. I close with suggestions on tools for new and intrepid designers.

At this point it is perhaps cliché to comment on the growing interest in gaming in composition studies. Journals *Computers and Composition* and *Computers and Composition Online* each ran a special issue nearly ten years ago on games and writing (2008), and *Currents in Electronic Literacy* ran a similarly-themed issue in 2010. Jonathan Alexander's "Gaming, Student Literacies, and the Composition Classroom: Some Possibilities for Transformation" was published in *College Composition and Communication* in 2009 (pp. 35–63). At the 2017 Conference on College Composition and Communication, sixteen panels included at least one presentation on gaming, and many were full panels on either gaming pedagogies or critical analysis of games. *C's the Day*, now the official game of the conference, ran for the seventh time at this meeting of the conference. While we may not be past the work/play dichotomy Albert Rouzie highlighted in 2005's *At Play in the Fields of Writing: A Serio-ludic Rhetoric*, conversations about the value and role of games in rhetoric and composition classrooms are lively and regular.

However, despite this demonstrated interest in games as both sites of analysis and as pedagogical models, relatively few people in our field actually make or have their students make games. Compared to the attention and support multimodal composition has received, including a textbook by Kristin Arola, Jennifer Sheppard, and Cheryl Ball (*Writer/Designer,* 2014) and numerous pedagogical texts on implementation (Lutkewitte, 2013; Selfe, 2007; Wysocki, 2004), composition-focused texts on game development are virtually non-existent. Many of the examples that do exist are focused on paper prototyping or board and card games. Indeed, Douglas Eyman and Andrea Davis' 2016 collection *Play/Write: Digital Rhetoric, Writing Games* contained eighteen essays on the topic of games and rhetoric/pedagogy but only one on having composition students create digital games (an additional article discusses the pedagogical value of having computer science students code games in introductory courses). This observation about the lack of digital games creation is not meant to undercut the importance of design activities that involve physical games. Indeed, these game artifacts are valuable as either a stepping stone to digital production or as a final product in and of themselves. Paper prototypes are an essential part of any game design plan, and board and card games are important media in the midst of a popular resurgence. Nonetheless, the relative dearth of materials on composing games seems remiss.

Thus, I present a call to action, an endorsement for the act of digital game design as composition pedagogy and as scholarship. Yasmin B. Kafai and Quinn Burke (2016) noted several benefits to what they call "constructive gaming", creating one's own game for pedagogical purposes,: students who make games "[demonstrate] significantly deeper engagement in their learning and strategy use, which [involves] system analysis, decision making, and troubleshooting" (p. 33). This article will explore some of these benefits, looking first at the existing literature in the field on games and learning before moving on to the ideas of constructive gaming and code literacy. Of course, one possible reason for our current lack of engagement is clear: game design tools are generally quite complicated and intimidating. Thus, this article will conclude with a brief overview of the existing tools intrepid instructors and students might explore with.

## Games, Rhetoric, and Pedagogy

Constance Steinkuehler (2016), in her introduction to Kafai and Burke's (2016) treatise on game design for learning, summarized the impact of James Paul Gee's 2003 landmark title *What Video Games Have To Teach Us about Learning and Literacy* thusly: "it spawned a generation of research and development on educational and commercial games (and game communities) that capitalized on the capacity of the medium to engage learners in complex forms of thinking and problem solving" (as cited in Kafai and Burke, p. xi). As Steinkuehler implied, Gee's text has been taken up in a number of fields, and rhetoric and composition is no exception: Cynthia Selfe and Gail Hawisher's 2007 *Gaming Lives in the 21st Century* was inspired by Gee, and both journal special issues mentioned above highlighted Gee's text as one of the inspirational materials in the editor overviews.

Gee (2003) espoused a number of different ways he claims good games equal good learning (thirty-eight, to be exact). Gee's argument was not that games provide good content for learning, though of course certain games may, but rather that they model effective pedagogy: "video games are potentially particularly good places where people can learn to situate meanings through embodied experiences in a complex semiotic domain and meditate on the process" (p. 26). Many of these principles have been picked up and contextualized in terms of rhetoric and composition pedagogy.

There are, of course, a variety of ways games can be used in educational settings. Eric Klopfer, Scott Osterweil, and Katie Salen (2008) identified twelve different models in "Moving Learning Games Forward," including games as engines or authoring platforms, games as authoring systems, and games as technology gateways, to name a few. Max Lieberman's (2010) meta-analysis of existing literature on games and pedagogy in composition and rhetoric identified four distinct ways games are used in writing instruction. First, they may be used as a means to teach specific content and/or skills. David M. Sheridan and William Hart-Davidson's *Ink* (2008), Ryan M. Moller and Kim White's *Peer Factor* (2008), and Matt King's *Rhetorical Peaks* (2010) were all demonstrations of using games to teach composition-related skills. Second, games and gaming communities may be used as a text for close reading and rhetorical analysis. Richard Colby and Rebekah Shultz Colby (2008) and Matthew S. S. Johnson (2008) modeled this approach, using *World of Warcraft* as a site for rhetorical analysis. The third model moves from using physical games at all, and instead looks to gaming as an exemplar of effective pedagogical practice. Game design principles may be used as a framework for pedagogy, a method strongly advocated for by Jane McGonigal in *Reality is Broken* (2011) and implemented in the experimental combined middle and high school Quest to Learn. In rhetoric studies, Justin Hodgson (2013) used this approach in a games and rhetoric course, and Jill Morris (2016) used augmented reality games as pedagogical practice in her business writing courses. The last of Lieberman's categories, and the one I will focus intently on here, was having students design games using a number of tools in varying degrees of complexity to demonstrate their knowledge of multimodal writing and composition. While not particularly common, Danielle LaVaque-Manty (2013) wrote of supporting students in the creation of text-based adventure games using a variety of different simple development platforms, and James J. Brown and Eric Alexander (2016) required students in their advanced rhetorics class to create games in Scratch (a tool discussed in more detail below).

I highlight Lieberman's taxonomy here because it represents a clear and succinct way of thinking about the various methods and implications of a games-based pedagogy. Certainly these are not exclusive domains, nor is one more or less preferential than the others (though Kafai and Burke would almost certainly argue that instructivist perspectives, using games as instructional materials, are not as rich or engaging as constructivist perspectives, using games for creation and experimentation). Rebekah Shultz Colby (2017), in her survey of games-based pedagogies conducted with twenty-four writing instructors, identified seven pedagogical approaches to incorporating games into writing classrooms: "rhetorical analysis of games, composing games, games as theory, professional writing genres in gaming, games as research spaces, gaming as transfer, and gamification" (p. 60). Douglas Eyman (2008) used a four-part taxonomy to describe research in the field (including that which is not pedagogically-focused): writing about games, writing around games, writing in or through games, and writing games.

## From a Play-Based Pedagogy to a Maker-Based Pedagogy

Prior to addressing the value of game design for rhetoric and composition, it will be useful to turn momentarily to conversations about code literacy or, as Karl Stolley (2012) preferred, source literacy. Annette Vee (2013) argued for the increased importance of computational work and its study by literacy professionals, stating, "programing is not replacing writing, but is rather interlacing with it, augmenting it." Vee positioned code and computational understanding as a new technological literacy, one that, like all literacy technologies that precede it, has important implications for social power. Similarly, Alexandria Lockett (2012), while emphatically underscoring she is not a programmer, nonetheless explained the many ways computational literacy grants her agency as she acts and interacts with technology in profound ways. Vee and Lockett highlighted the increasing importance of basic computational literacy for both scholars and students. As our lives are increasingly surrounded by technological systems, it seems natural that a rudimentary knowledge, at a minimum, of what computational systems are and how they are governed by rules is an important part of being a literate member of society.

Karl Stolley (2012) expanded the call Vee and Lockett make, offering a vision for the future of Computers and Writing in which coding is central to the work of the field. In Stolley's vision, the field "places craft at the center of what we do. And what we do is digital production. We make things from raw digital materials: open-source computer languages and open formats. Which is to say, we write digital things. To write digital things, we rely on a strong command of source literacy." In these calls for an increased focus on the computational, the procedural, and the programmable, I find the seeds of my own call for an increased focus on game design, prototyping, and development as composition.

As Kafai and Burke (2016) noted, Gee's good learning principles from games don't just explain why they make engaging texts to learn from; these principles also demonstrate why games are challenging but rewarding texts to compose. Jody Shipka (2011) called for an expansive understanding of composition courses, one which focuses not simply on the creation of a final research project. Her expanded definition of a composition course is one in which "students leave their courses exhibiting a more nuanced awareness of the various choices they make, or even fail to make, throughout the process of producing a text and to carefully consider the effect those choices might have on others" (p. 85). While her call for increased attention to how compositionists define and situate the work of composition never explicitly refered to gaming, certainly game design activities can meet this definition. Indeed, Brown and Alexander's (2016) description of their use of game design in an advanced composition course demonstrated exactly that. Their students, having explored Ian Bogost's concept of procedural rhetoric and other theories of digital rhetoric and multimodality, designed and produced a persuasive game on a political topic. In doing so they accomplished the goals Shipka (2011) defined for composition: thinking critically about design choices (p. 21). Brown and Alexander (2016) argued game design is a rhetorical and compositional challenge that presents students with "inventional spaces—possibility spaces that encourage exploration and invention" (p. 275). Having their students create games gave the students the chance to compose with images, sounds, and text and also gave them the opportunity to model complex systems and think about those systems in a non-game environment.

This computational, or systems-based, thinking is an important part of how game design projects give students potential value above and beyond other types of multimodal composition activities. Game designer Tynan Sylvester (2013) described games as "engines of experience." Explaining what he means, Sylvester said, "I think of games as a special kind of machine. Machines are made of carefully designed metal shapes that fit together perfectly, whole games are made of carefully designed mechanics that fit together perfectly" (p. 44). Working on a game project, and particularly game projects like the ones Brown and Alexander encouraged their students to undertake, forces students to think about the systems they see all around them and translate those systems into game mechanics. Thus, game creation involves two important acts: critical analysis of real world situations and systems and thoughtful reframing of those existing systems into persuasive engines of experience that convey messages using procedural rhetoric.

Furthermore, as Danielle LaVaque-Manty (2013) discussed, coding proficiency is less essential than rhetorical knowledge for assigning, supporting, and assessing student-created game works. LaVaque-Manty argued that game design assignments are an opportunity to "acknowledge that our students have more experience in some realms than we do and invite them to develop skills we don't teach them alongside the skills that we do" (p. 115).

## Tools of the Trade

Rebekah Shultz Colby (2017) identified a lack of resources as one of the primary challenges for any games-based pedagogy, and this challenge is certainly intensified when it comes to designing games (p. 58–59). Colby noted that her survey of WPA-L (Writing Program Administrators Listserv) revealed video games are the multimodal text least used for either analysis or production. In this section I hope to briefly address the lack of resources she identified and provide touchstones for interested instructors to build from. While this section will certainly go out of date with time, the tools below are well-established and used extensively. When applicable, I have referenced particular articles or chapters that model using the tool in question. These tools are further listed in order from least complex (Twine) to most complex (Unity).

### Twine

Twine's homepage describes this tool as "an open-source tool for telling interactive, nonlinear stories" (Twine.com). The drag and drop interface allows users to create text-based adventure style stories with little or no HTML or CSS knowledge, making this tool an excellent choice for classes that do not have a strong technical component or instructors with little coding knowledge. Equally important to the ease of use, these texts are web-native artifacts that are easy to share online. While many contemporary students are likely to have little or no experience with interactive fiction as a genre, these texts are fairly simple to make and provide an excellent playground to explore various concepts related to composition and game design: interaction and interactivity, narrative and play, and challenge and reward, to name a few. In its self-description, Twine also highlights the scalability of its engine: "you can extend your stories with variables, conditional logic, images, CSS, and JavaScript when you're ready" (Twine.com). This ability is an intriguing opening for pedagogical applications, as instructors and students can scale the complexity of their projects based on their existing code knowledge and their desire or commitment to extend that knowledge. All students will quickly and easily be able to create branching stories that allow them to explore concepts like procedural rhetoric, while students that take a particular interest in the assignment or students with a background in programming will be able to incorporate more complex story elements

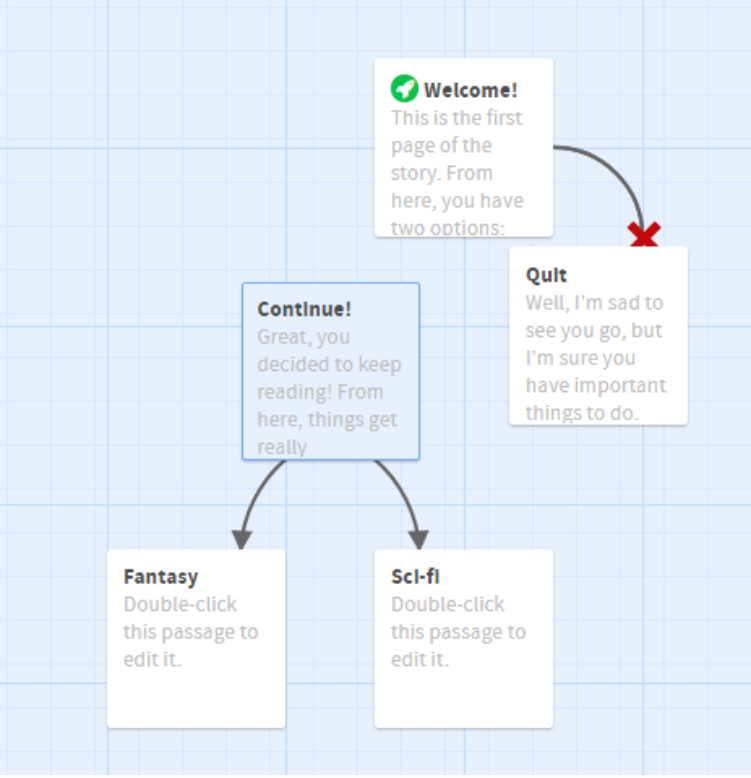


Figure 1: Sample starter story in Twine.

(character stats, an inventory system, and other game-like features). Thus, Twine allows students to develop their systems thinking through a consideration of rules or behavior without introducing complicated asset management or animation.

Anastasia Salter's (2015) "Learning through Making: Notes on Teaching Interactive Narrative" provided a model of using Twine in an upper division course focused on narratives in new media. Salter noted that, while the majority her students came to the classroom with extensive technical backgrounds, they often struggled with design, having difficulty recognizing the affordances of the media they work in. Throughout the course, Salter assigned a series of "creative miniprojects," including things like the translation of a personal experience into an interactive narrative and an interview with a famous character (pp. 2–3). These projects focus students' attention on the compositional goals of interactive narratives, including style, genre, and voice.

## Scratch

Scratch is a game development environment with a high level coding language, meaning that it contains more elements of natural human language and is easier for beginning coders to pick up quickly and use. This tool is designed explicitly for educational purposes and targeted at children ages eight to sixteen but is appropriate for any beginner interested in diving into digital game design. Like Twine, Scratch is designed to accommodate a variety of skill levels and provide opportunities for growth and development. While the program can also be used to make text adventures, it shines as a simple engine to teach 2D game design and programming structures. Students are able to add basic animations, sound effects, and simple logic statements to make their games interactive and visually compelling. Scratch has received substantial attention from the K–12 learning community and is used extensively in extra-curricular programs. At this point in time, Scratch is perhaps the most commonly used development engine for novice game designers and has both extensive documentation and a fair amount of research published outside the field of rhetoric and composition.


Figure 2: Bascom Hill Defender, a game created in Scratch by a group of digital rhetoric undergraduate students.

Brown and Alexander (2016) discussed their use of Scratch in an upper division digital rhetorics course in their chapter "Procedural Rhetoric, Proairesis, Game Design, and the Revaluing of Invention". Students read Bogost's *Persuasive Games* and then created their own game that used procedural rhetoric to make an argument about local and/or state politics in Wisconsin. The above game, *Bascom Hill* Defender, places players in the role of Native American tribes attempting to defend their land from Western expansion. The students describe their intention in a summary of their game, saying "players experience the frustration of lacking privilege in a system that claims to be an even playing field" (Berger et al, 2012). Brown linked to several final student games on his website, providing a model of what students can create with just one semester of instruction in both the tool and the affordances of game design.

## Unity

Unity is a complete development environment and game engine. It is one of the top engines used by independent game developers and has even been used by major design studios including companies like Blizzard (makers of *World of Warcraft*) and Bethesda (makers of *The Elder Scrolls V: Skyrim* and *Fallout*

*4*) to make their immensely popular mobile games, *Hearthstone* and *Fallout: Shelter* respectively. While Scratch and Twine are both designed for those with limited coding experience, Unity is a complex game environment that requires a fair amount of time to learn and use effectively. While Unity is an extremely complex system, there is an extensive online support system with tutorial videos and support to assist eager new designers. This option may not be appropriate for intro-level courses or courses not explicitly about game design or programming, but it is a powerful tool that gaming compositionists should at least be aware of. Unity is free to educational institutions and free to individuals who make less than $100,000 on any game using the engine (at which point developers must pay a one-time licensing fee). There are currently a number of game design textbooks that both instruct students in game design theory and have them enact this theory through the creation of simple games in Unity. There is also, as previously mentioned, a substantial amount of online tutorials and training tools and active online communities devoted to learning and improving the software. Nonetheless, there are currently no in-field discussions or examples of Unity.

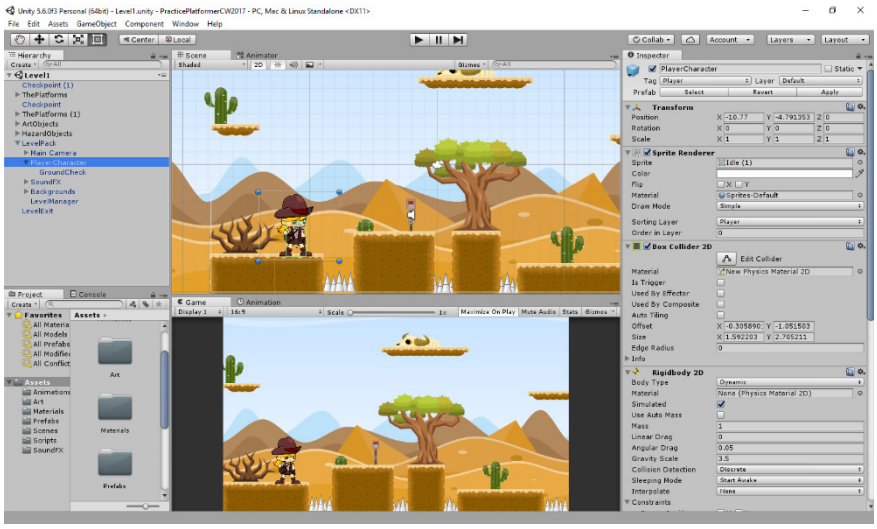

Figure 3: The editor screen of Unity, as demonstrated during Computers and Writing 2017.

In my 2017 workshop at Computers and Writing, I introduced the software, demonstrating the creation of a basic platformer in just six hours of workshop time. Certainly, six hours is a not inconsequential amount of class time for any course, and yet, for courses where topics including multimodal composition, game design, and/or procedural rhetoric are relevant, spending time to explore Unity can offer insight into design affordances that may be overlooked without such a focus. In the six-hour workshop, we explored box colliders, animation, camera angles, and movement scripting, looking at the various affordances and limitations of the design choices we were making. A brief example: to simplify the code we wrote for our camera, we locked it on the y-axis, meaning the camera was able to move left and right, but not up and down. This simple choice required some workshop participants to radically change their level design, as they initially included platforms that went above or below the camera space. We made similar choices throughout the workshop, as we considered whether or not to let the player double-jump, how fast to allow the player to move, and what kinds of obstacles to put before the player.

I doubt any of my workshop participants will leave the field to become game designers, just as I do not anticipate the use of the tools discussed above in rhetoric courses will necessarily propel any of our students into the field of game design. What I do firmly believe, as Kafai and Burke (2016) argued, is that even brief exposure to the creation of digital games will deepen students' understanding of systems thinking. Furthermore, when coupled with instruction in digital rhetoric, game design activities have the potential to make students both more critical and critically aware users of the digital systems that surround them.

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# Building Good Robots: A Case in Successful Open-Source Learning Management

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*Derek Hanson, Iowa State University*
*Bryan Lutz, Iowa State University*
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We describe our successes and difficulties using open-source learning technologies as a case study for how open-source can fulfill the needs that Grabill identified in his 2016 call for good robots. Specifically, we describe our experiences with developing platforms with open source software, including achieving buy-in from faculty and other stakeholders, addressing users' needs and concerns, and overcoming technical and logistical obstacles. The primary software employed by ISUComm are Moodle and WordPress; both are popular and continually developed by their respective open-source communities. While we neither see open source as a panacea nor as a simple solution, Iowa State's ISUComm Foundation Communication program has enjoyed success with open-source technologies for the past decade or so, and we argue that the benefits of open source outweigh the potentially negative consequences of Grabill's "bad robots."

In his keynote address at Computers and Writing 2016, Jeff Grabill warned of "bad robots," or digital systems created by corporations seeking to profit from student writing. Grabill also suggested that the open-source model, while an attractive alternative to proprietary platforms, is unsustainable: "...[T]here wasn't—and still isn't to this day—a community of writing teachers, researchers, and digital humanists willing and capable of supporting complex, long-term open source or similarly shared projects" (McLeod, 2016, Part 3, para. 9). Grabill proffered his own creation, Eli Review, as a model for communication scholars to build "a good partner for others" (Part 3, para. 14), or what we might call good robots, using a business model to generate the necessary resources to sustain such digital learning projects. Reactions to Grabill's keynote on social media were enthusiastic and positive. Bill Hart-Davidson, Mike McLeod, and Grabill also discussed Eli Review and writers' interactions with robots in Walker et al. (2011).

Here we offer examples of good robots developed in Iowa State's English Department that do not operate on a business model but rather an open-source one. The Conference on College Composition and Communication (CCCC) justified the use of open-source software in their 2008 business meeting statement. They acknowledged that open-source software "allows teachers, students, and institutions to participate in customizing software according to the specific, situated needs of a program or institution" (para. 3; resolution 1). A couple of the authors named here have offered additional justification for open-source software (Lutz, O'Connell, & York, 2014; Lutz, Blakely, Rose, & Ballard, 2016), but here we argue that our systems qualify as good robots because we have made each software package our own, resulting in systems that match our needs and values. Moreover, with our systems no one makes a profit off students' work, and we have control over the student's data, which in turn helps us further develop our systems and our program. While successful open-source ePortfolio platforms are rare (Meeus, Questier, & Derks, 2006), we see these examples as a heuristic for how to effectively use open-source tools to facilitate multimodal composition pedagogy.

In the spirit of CCCC, we have designed several content management systems (CMS) and learning management systems (LMS) that draw upon vibrant communities of developers while using our own scholarship to customize the systems to the context of our curriculum. Specifically, we will discuss ISUComm Courses and ISUComm Sites (and their spin-offs), respectively based on the Moodle and WordPress open-source platforms. ISUComm, a multimodal communication initiative at Iowa State University, seeks to integrate written, oral, visual, and electronic modes in first-year, advanced, and writing-across-the-curriculum communication courses. As current and former members of ISUComm's Online Learning Team (OLT), we discuss the projects' beginnings, their current states, and where we see them headed. We hope our description of the programs will demonstrate the potential benefits and

difficulties of developing home-grown, open-source tools in lieu of adopting large corporations' proprietary learning platforms.

## ISUComm Courses, a Moodle LMS

Iowa State University owns licenses for a number of proprietary LMS and CMS such as Blackboard, Canvas, Panopto, and Box. Prominent among them is Blackboard, which is used by a majority of colleges across the campus to support classroom instruction. While Blackboard is a powerful LMS, its for-profit model of education makes us uneasy. Moreover, Blackboard's design prescribes both the ways that instructors can deliver content and the ways that students interact with content. For our department of scholars who study web development, content delivery, and course design, we found Blackboard's prescriptions to be more cumbersome than enabling. We desired more control over the design of our courses sites, and that desire became the exigence for ISUComm to adopt its own LMS developed using open-source tools.

ISUComm Courses began on a small server in a faculty member's office as a humble Moodle installation, a powerful open-source LMS chosen for its great flexibility in course design. Moodle is powerful in that it has a large catalogue of plugins and themes that expand the LMS's capabilities to accommodate different educational contexts. Moodle has a vibrant online support community that consistently works to develop plugins and themes, and our faculty members and graduate students dialogue with that community on its forums on how each plugin could be improved to better serve our instructors. Over time, the popularity of ISUComm Courses grew as the platform evolved to support course sites for the English department generally and Foundation Communication (FC) courses specifically.

Today, much of ISUComm Courses' functions are the product of dialogue between the graduate students and faculty of ISUComm. The early Moodle installation served as a proof of concept that our department used to broker buy-in from the university, and as a result we formed a dedicated group of graduate students named the Online Learning Team (OLT), which grants each member a course buy-out. This culture of graduate student experimentation with open-source software allows us to adapt to global pedagogical needs of our program and local pedagogical needs of instructors. In addition, OLT members gain experience with server-side administration and course design. For example, the OLT performs all Moodle upgrades, and they have written custom CSS rules that range from coding a more unified visual identity for ISUComm Courses to customized CSS buttons, collapsible weeks, and other design features to improve usability and visibility for course sites. This ongoing development allows instructors far more options than the folder-driven layouts of a proprietary LMS like Blackboard.

In short, using a combination of themes, plugins, and custom coding allows us to overcome shortcomings of other systems. Having control over the software and its development also means the technology is distinctively ISUComm; our instructors need not surrender authority to proprietary systems' branding or their vision for education if they do not wish to. Yet, while ISUComm Courses offers instructors considerable flexibility, Moodle's software has a harder learning curve. To mediate this shortcoming, our role as members of the OLT affords us the time to help ingratiate instructors to the system while simultaneously brokering unique opportunities for us as graduate students operating as support for the department.

## ISUComm ePortfolios—A Path to Improvement

ISUComm ePortfolios, originally called ISUComm Sites, was developed using WordPress software to support Foundation and Advanced Communication courses and our multimodal pedagogy, wherein we had been teaching students about electronic media as a means to combine multiple modes for added communicative effects, but without enabling students to experience web authorship and experimentation with Web 2.0 technologies. Our WordPress-based platform allows students to experience dynamic forms of authorship and encourages interactivity between students' compositions and their target audiences.

Proprietary systems like Blackboard had an option for ePortfolios, but their model did not enable web authorship. We wanted students to be able to create fully-functioning websites that would serve to showcase students' processes and products as they worked toward becoming better communicators, students, and future professionals.

The early beginnings of ISUComm ePortfolios began in a small closet within the OLT's office. There, three graduate students worked to find a way to better teach the electronic mode of communication: one graduate student set up a secured server hosting three separate WordPress installations, one graduate student assisted in the development and maintenance of the server and a WordPress multisite installation, and all three taught their courses using this setup. This early installation had a public URL; two graduate students had administrative control over all sites, while instructors had administrative control over the students' sites and students were admins on their own site. While having the ePortfolios fully public was not ideal for our context, it was necessary for this early experiment.

WordPress core affords the ability to make posts and pages. But as Kristin Arola (2010) argued, simply posting content into a form is not web authoring (p. 6). To answer her call, we installed several network-wide plugins that afforded custom styling, fonts, and layout options of individual WordPress pages so that students had considerable control over the design of their ePortfolios. On the dashboard, these plugins looked similar to word processors and other familiar tools, but they enabled students to customize the styling and arrangement of content, even at the level of HTML and CSS. These plugins and styles were answers to questions asked during the development of the platform: How can we accommodate students' literacies and varying ranges of experience by enabling web design? How do we enable easy embedding of content such as Word documents or presentations authored with PowerPoint or Prezi? Answering these questions, the small team developed a list of themes and plugins necessary for teaching ePortfolios within the context of ISUComm.

These early experiments were the foundations of creating a Beta Platform, where we extended the user base to include a pilot cohort of instructors of ISUComm Foundation Courses. Just as with Moodle, the early successes of this pilot meant we had a proof of concept as a means to achieve buy-in from the college and resources for ongoing service and support. While there have been considerable successes, there were a number of stops and failures early in the project. Our early negotiations did not meet our university's expectations for security and support, and we had not negotiated the competing and complementary visions for how such a platform could be secured, developed, and maintained in useful and pedagogically sound ways (Lutz et al., 2016, "Developing the Platform as an Online Environment," para. 6). This meant that moving forward with the project was often done without full consensus of everyone involved (Lutz et al., 2014). Moreover, as the user base for ISUComm ePortfolios expanded, this demanded more involvement from the OLT to provide instructor training on the platform while also providing context-specific support for instructors and students. These challenges were immense. But with the concerted effort of ISUComm faculty and the still-growing OLT to garner support, the ePortfolio platform continues to grow.

## Digital Repository for Academic Writing—Collaborative Pedagogy

As our primary platforms grew, so too did the need for pedagogical support, which necessitated an effort to create spaces where instructors could help each other. As part of this effort, two grad students developed a WordPress site that would allow instructors in the English department to contribute teaching ideas to a central repository containing teaching ideas, lesson plans, activities, and tips that instructors could share amongst themselves. The project came to be known as the Digital Repository for Academic Writing, or DRAW, and has served dozens of writing teachers since its inception in 2013. Similar projects to DRAW include the Sweetland Digital Rhetoric Collaborative of the University of Michigan and the multi-institutional Corpus & Repository of Writing (CROW).

As happens with so many graduate student projects, however, DRAW fell into danger of extinction as Tom Lindsley, the last of the two students, prepared to graduate. Tom tried to find a graduate student successor who would be willing to take over DRAW and continue maintaining and developing the

platform. The timing ended up being quite fortunate as ISUComm Sites had by this point entered its pilot phase, and the OLT was in a good position to take over DRAW. Because DRAW is another WordPress platform, the question of where to host the system was easily resolvable by integrating the custom-designed theme and the pages and posts of DRAW into a new site on ISUComm Sites' WordPress multisite network. Requesting a domain name, draw.isucomm.iastate.edu, and integrating DRAW into the Sites network, were easy enough challenges to overcome. Authentication and account creation, however, proved more difficult.

When DRAW was hosted on the grad students' own server, account creation could be handled using their own system's protocols and processes. Once DRAW became a part of a university-owned and operated system, however, account creation and handling was more complicated. Ultimately, the OLT decided that DRAW could best meet the needs of our users if it authenticated through the university's LDAP authentication system, but that it would be best if only instructors in the English department were able to log in to contribute activities. This required setting up Active Directory (AD) integration for the system, which allowed us to restrict access to those users whose Net IDs were part of the English department's email listserv for instructors and staff. Now all instructors and staff in the English department can log into DRAW with their Net ID and password, without creating a separate account, and contribute projects to the repository freely (Figure 1).

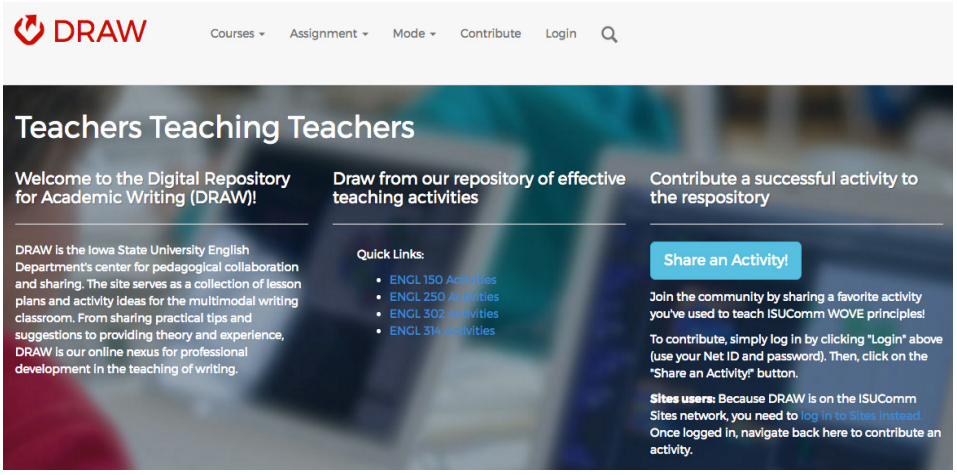


Figure 1: The homepage for DRAW offers quick links and an opportunity to log in and share an activity.

We face ongoing challenges with DRAW, the largest being a resilient lack of awareness of the platform and an occasional reluctance to use a system separate from other resources that are already used for similar purposes, such as the university's version of Box.com, CyBox. Yet we feel that DRAW offers real advantages for professional development and pedagogical collaboration, the largest being its multimodal capabilities of hosting embedded images, audio, and video. WordPress's categories and tags systems have also been used to full advantage with the platform, and finding activities for a particular course or even a particular assignment is relatively quick and easy. As the OLT moves forward with other initiatives and projects, DRAW remains one of our powerful aides for teachers of writing.

## ISUComm eProfiles—Focusing on Students' Futures

Following the success of ISUComm Sites' ePortfolio beta testing and DRAW, the OLT began to anticipate a growing user base with various needs. ISUComm ePortfolios exists primarily to serve ISUComm's Foundation Communication (FC) program. To help students navigate the FC curriculum, the OLT, collaborating with the ISUComm WPA, created the unique user role of student for ePortfolio users to limit the administrative capabilities of FC students within WordPress, lest any unassuming student create technical problems with the platform. However, an even greater concern for ISUComm ePortolios within FC was how to handle students' privacy.

Both the Dean of Arts and Sciences and ISUComm's WPA, whom the OLT works with closely, have been concerned about students' work being available for viewing by others students and instructors on the site's network. All stakeholders agreed that students releasing that content prematurely might compromise the learning experience for students who are just learning to write for the web for the first time. Working with our WordPress technician, the OLT created an ePortfolio privacy plugin that restricts access to only the administrative user (the student) and a registered user (the instructor) to protect student privacy. Yet the long-term potential for ePortfolios is that students can create professional websites for going on the job market, meaning that students' ePortfolios must eventually be available on the World Wide Web. This led the OLT to expand our WordPress network by creating a new domain: eProfiles.

EProfiles allows users to create outward-facing websites that can be used to increase digital visibility for entering the job market. The OLT identified multiple levels of potential users for eProfiles: undergraduate students, graduate students, and faculty. The goal for the eProfiles network is to provide personal websites for users. With that goal in mind, the privacy plugin is deactivated by default, but the OLT still keeps it available for users to decide when they are ready to open their site to the rest of the web. More administrative privileges are also granted so users can activate plugins from a selection the OLT has already provided. Since eProfiles is a separate domain on the network and serves a different purpose than ePortfolios' FYC users, a new homepage (Figure 2) was created and designed as an example layout for users to see how they might envision their own professional site. Here new users can see the potential and request a profile for themselves.

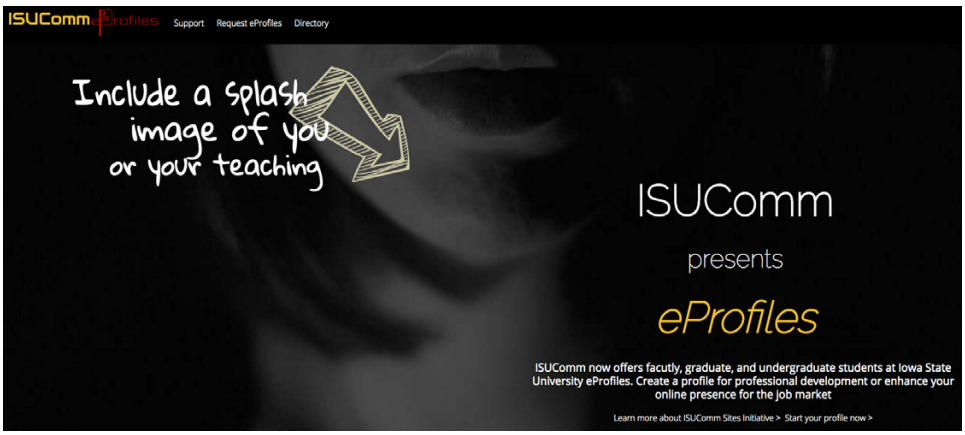


Figure 2: The eProfiles homepage is designed in such a way that it serves as a model for the intended purpose of the outward-facing platform. When users visit the site, they can scroll down and see the potential for their own site.

To slowly introduce this new multi-network option, the OLT worked in conjunction with the ISUComm teaching proseminar by piloting eProfiles with first-year graduate students. Teacher mentors ask these teaching assistants to create a teaching philosophy and portfolio, essentially beginning their professional development. EProfiles fits perfectly with this context as it helps new scholars begin their academic career with a web presence that they can develop throughout their time as students and teachers.

While the OLT sees eProfiles as the platform with the most potential to reach across the university, it still needs development and promotion. Specifically, the site request process is more nuanced than ePortfolios and thus needs careful planning. The OLT anticipates mostly single users requesting sites, but there needs to be an option available to instructors wanting to request sites for classes; in the first semester offered, one instructor requested eProfiles for a graduate-level class on teaching language learning with technology. Even more so than the functionality of the site, promoting eProfiles to the English department and, hopefully, the university is our biggest roadblock. The OLT is continuing to develop the site, but attracting users will take time as people are only recently becoming aware of its

existence. The creation of eProfiles also fueled the conversation of user needs, leading the OLT to plan a new network, eProjects, to accommodate another purpose for our WordPress platform.

## ISUComm eProjects—Rethinking Digital Collaboration

Until recently, all of ISUComm's platforms have been tailored to collaboration either between instructors or between instructors and students. Only recently has the OLT tried to best accommodate two related pedagogical needs that had been brought to their attention by instructors. First, instructors needed a web platform for class projects that were separate from class portfolios. Some professors simply used the ePortfolios platform, but many would use a third-party site such as Weebly, Wix, or Blogger. The use of third-party platforms was in part due to the second issue: the need for collaboration and publicly viewable websites. EPortfolios are linked directly to a single student's Net ID and password, meaning only they can sign in to work on it. Also, as was mentioned briefly, only the student and instructor can see ePortfolios. As the OLT looked to expand our platforms, we wanted to make sure we had a medium for online, collaborative project creation. This became eProjects, a platform purposed toward student-to-student collaboration within a single website. Part of designing eProjects focused on making sure that groups, or even whole classes, could work on one site. Based on feedback from the professors we knew needed this type of platform, we decided that the sites would be publicly visible by default. The public visibility, however, has raised concerns with the instructors who would rather keep their students' projects private. We are currently working through this problem and how best to use our privacy plugin.

Testing for eProjects started small, in the fall of 2016. Two OLT members tried it out in classes they were teaching—business communication and technical communication—and tried to anticipate any potential issues that instructors would need to be aware of. Members of the OLT also used eProjects in classes they were taking in order to have working examples of what students and instructors could potentially use eProjects for. Through connections with professors who were already using ePortfolios, the OLT was able to have a few other departments try out eProjects. This included a landscape architecture class, which used one eProjects site as a whole-class project, and a meteorology class, who used eProjects for group work. The landscape architecture class, in particular, fully embraced eProjects and used their site as both a collaborative project and the nucleus of course information and materials (Figure 3).

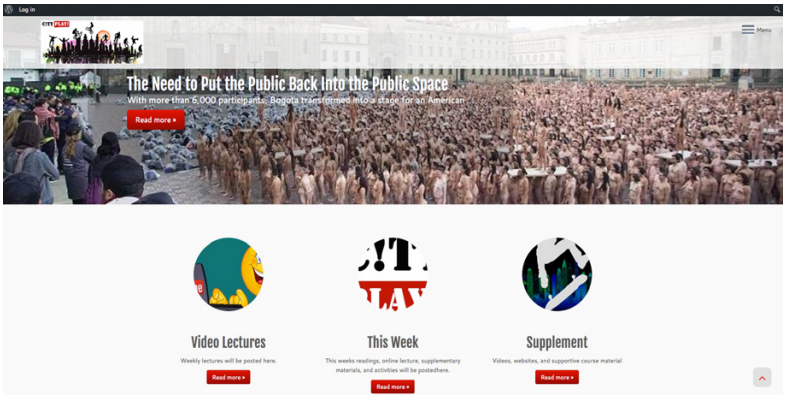


Figure 3: A landscape architecture class took full advantage of the affordances of eProjects by using the site as a collaborative space for class projects in addition to hosting class materials.

As with eProfiles, the OLT is looking to market wider usage of eProjects. More professors in the English department are starting to look into using eProjects outside of FC courses. However, we believe that the success of eProjects outside of the English department could be expanded well beyond two departments. Currently, the OLT is working with Iowa State's human development and family services, accounting, and biology departments to prototype examples of projects that could be developed with the

use of an online platform, and a few other departments have expressed interest. The eProjects platform is slowly, but steadily, gaining ground as a way to incorporate electronic communication into various classrooms.

## ISUComm Support—Building Trust through Ongoing Assistance

The success of the OLT and its use of open-source technologies have mostly been a result of the support that the graduate students working for the OLT offer. Each semester and throughout the summer, we hold a weekly meeting to discuss technical issues, project updates, visitor and email conversations and to coordinate writing instructional articles and workshops. It is in these meetings that we keep our team focused on our large user base for each of our platforms, asking ourselves how we can improve upon the technologies, what kind of support the users need, and how we can meet those needs in the best way possible.

As of this writing, the OLT has written over 120 support articles on various topics, ranging from simple tasks such as adding a label to complex Moodle activities like setting up and using a gradebook. The articles are housed on yet another WordPress site called support.isucomm.iastate.edu. Using the KnowHow theme for a simple design, we take full advantage of WordPress' post capabilities, similar to our DRAW site, by sorting articles with categories and tags. We feature a prominent search bar to prompt searches, a tag cloud showing most popular posts, and other sidebar widgets for improved browsing and usability.

In addition to support articles, we offer personal consultations and quick email responses for technical issues. Our best tech support often comes from low-tech in-person visits in our office. The beginning of each fall semester, the team works with incoming teaching assistants and provides group training on ISUComm Courses and ePortfolios. Each year, the writing program administrator has scheduled more time to this training as the technology is valued as an integral component to teaching FC. The OLT also holds workshops each semester for continued training on the WordPress platforms. Attendees hold various levels of technical knowledge, so the OLT has tried to plan workshops accordingly, presenting both introductory help and more advanced material.

## Conclusion

The goal of this proceeding is not to laud our own program and systems. Rather, we hope we have demonstrated some of the benefits and challenges of implementing open-source software. While open-source systems offer a number of benefits for students and instructors, they can also serve as learning tools for graduate students. In developing and maintaining these systems, we learn about security, server-side administration, curricular development, and how an LMS can best facilitate the workflow of a classroom. We learn about support and documentation by offering context-specific instructions to students and instructors through our ISUComm Support website. We also gain administrative experience by working closely with the director of ISUComm FC to create trainings, workshops, and other presentations necessary for supporting ISUComm's multiple platforms. In short, the OLT is made up of teachers of ISUComm who are not just tech consultants; we are consultants on how to effectively incorporate technology in the classroom.

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# Control Panels, Numerous Screens, and Wheeled Chairs: An Examination of the TEAL Classrooms in the University of Kentucky's Jacobs Science Building

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As discussed in James P. Purdy and Dànielle Nicole DeVoss' (2016) anthology Making Space: Writing Instruction, Infrastructure, and Multiliteracies, the exploration regarding how physical spaces inform composition education has expanded over the past decade or so, especially concerning the contributing technology found within the spaces; such research has more specifically considered just how "new and existing spaces are renovated and/or designed to make best use of digital tools and physical spaces for multimodal, digitally mediated instruction and research-related work" (para. 10). However, in the search for these innovative tools and environments, the balance between the provided technology and the physical learning environment can ultimately be lost. In search of such needed balance, this analysis will explore the boundaries between a positively technology-rich learning environment and an excessively-equipped physical space, using the University of Kentucky's newly unveiled Jacobs Science Building as a model. Specifically, the technology and materials included in the space and the placement of the instructor within the classroom setting will be considered from the viewpoint of a rhetoric and composition instructor.

Figure 1: The initial view of an active learning classroom in UK's new Jacobs Science Building as a person enters the room (McClain, 2016c).

Technology cannot become everything within a classroom, yet the advances possible with technologically-advanced spaces undeniably allow for more interactive assignments and group work, especially in classrooms designed for student collaboration. Considering the impact of physical space within the composition classroom, James P. Purdy and Dànielle Nicole DeVoss' (2016) anthology *Making Space: Writing Instruction, Infrastructure, and Multiliteracies* explored how physical space informs composition education, as well as how such examinations have especially expanded over the past decade or so concerning the contributing technology found within these spaces. Such research has more specifically considered just how "new and existing spaces are renovated and/or designed to make best use of digital tools and physical spaces for multimodal, digitally mediated instruction and research-related work" (para. 10). Yet, the inclusion of such digital technologies does not account for all the needs in a composition learning space. Pushing farther into how changeable these aspects may be depending on the specific classroom situation, DeVoss (2005) wrote with Ellen Cushman and Jeffrey T.

Grabill concerning infrastructure's impact on writing instruction, with infrastructure including the use of the room, the support for the work in the room, and the funding for the materials in the room (p. 20). In their article "Infrastructure and Composing: The When of New-Media Writing," they detailed how infrastructure becomes "more than material, is never static, and is always emerging" (p. 22), connecting to a possibly deeper concern that needs to be addressed (p. 17).

Keeping in mind both the movement toward renovated/designed spaces for digital instruction and the deeper concern with infrastructure overall, this analysis will examine the University of Kentucky's recently completed Jacobs Science Building, which includes classroom spaces designed for student group work and multimodal instruction. More explicitly, two aspects of the technology enabled active learning (TEAL) classrooms as used for composition and rhetoric courses will be considered: the technology and materials included in the space and the placement of the instructor within the classroom setting.

## Overview of the Jacobs Science Building

Built to become the cornerstone of UK's chemistry and biology programs, the $112 million-dollar Jacobs Science Building includes technology-enhanced classrooms that are structured with a focus on student group work and various digital pedagogies (Blackford, 2016). The building includes 12 TEAL classrooms, as well as teaching labs, student learning centers, ecological teaching spaces, and interior green space, found in areas such as the bases of the staircases (Czar, 2016). The Jacobs Science Building is estimated to serve 6,000 students a day (Blackford, 2016). It is also important to note that the building is not only used for science-based courses, as biology chairman Vincent Cassone stated: "[This day is] one of the most exciting days that we've had at the University of Kentucky in which there's an investment in arts and sciences that goes beyond what we could imagine" (Blackford, 2016).


Figure 2: The control panel at each student table includes two outlets, six cable cords to connect laptops, volume control, and the ability to select from the following screens: connected laptops 1-6, the instructor's desktop computer, and the camera mounted at each table (McClain, 2016b).

This report will specifically focus on the TEAL classrooms in the Jacobs Science Building, such as the room shown in figure 1. These classrooms include elements such as the following: a desktop computer for the instructor, which connects to an iPad that activates other digital aspects of the classroom; a camera, large screen display, and control panel at each of the student tables, including the ability for students to connect their laptops in order to show content on the linked screens (see fig. 2); recording capabilities; a projector with an electronically-controlled projection screen; white boards; wheeled chairs, which have either storage capacity or adjustable height

capabilities; student tables, seating five to six individuals each, including the previously mentioned control panels as well as adjustable height; and a center podium for the instructor. Throughout the course of this discussion, the focus will be on the use of the Jacobs Science Building for a composition classroom, following Cassone's statement that aspects of the building can function for the arts and UK's decision to place some rhetoric and composition courses (including the introductory courses WRD 110 and WRD 111) in the new TEAL classrooms. However, the findings that are related to the organization of the room and the utilization of the technology are not necessarily limited to this specified discipline.

## Technology and the TEAL Classroom Setting in the Jacobs Science Building

High-Tech Active Learning classrooms, such as those classrooms located in the Jacobs Science Building, are designed to create student interaction via collaborative learning, including features like round tables, moving chairs, laptop connections, and student-accessible whiteboards (Cotner, Loper, Walker, & Brooks, 2013, p. 82). Faculty are able to function as facilitators who spend less time behind the podium (p. 85–86), and students appreciate the variety of learning styles possible within such a classroom environment (p. 83). Unlike traditional classrooms that stick students in stationary rows and emphasize the teacher over the student via placement within the room, TEAL classrooms have round tables that encourage natural group interactions and deemphasize the instructor's role (p. 86).

In an examination of the University of Minnesota's Active Learning Classrooms (ALC) compared to the more traditional classrooms for biology classes, D. Christopher Brooks (2011) found that the physical environment that students learn in has a "significant impact on measurable student learning outcomes" (p. 719). The ALCs included large tables for up to nine students, technology to project laptop content to large display panels, marker-boards around the perimeter of the room, and an instructor station connected to projector screens and student display screens (p. 721). When comparing students in the ALC environments to students taking the exact same course in a traditional classroom, Brooks (2011) found that students in the ALC outperformed expected grades, using composite ACT scores to predict freshman students' grades (p. 723). When Brooks continued this study with Sehoya Cotner, Jessica Loper, and J. D. Walker (2013), they had similar results: students reported a higher level of engagement than their peers in a traditional classroom, a higher level of flexibility concerning various in-class assignments, and a better correlation between the use of the physical room and the coursework (p. 86).

Many of the elements found in the ALCs are also present in the Jacobs Science Building's TEAL classrooms, with slight differences including the tables only seating up to six students at a time and chair designs varying (height changes and wheels on certain provided chairs instead of only wheels). When comparing my past experiences in traditional classrooms with the TEAL classrooms, I believe that student interaction with group work succeeds more often at the circular tables; additionally, the students appreciate the ability to view content, including their own work via the laptop connections and cameras, with the available technology. The supplied technology readily grants students the ability "to become publishers and distributers of their writing" (Hart-Davidson, Cushman, Grabill, DeVoss, & Porter, n.d.) within the space of the course in a more interactive manner than previously available in the traditional setting. This element is highlighted in the University of Kentucky's introductory composition and rhetoric courses, as the WRD assignments include requirements such as digital writing — including podcasts, PSAs, websites, and documentary assignments — and group work. With those points acknowledged, however, the so-called decentralization of the instructor, or the literal centralization of instructor's podium in the TEAL classrooms at UK, does not necessarily succeed in the same manner as the other physical aspects of the space, including the tables and the technology.

## Teacher Decentralization and the TEAL Classroom Setting in the Jacobs Science Building

Often emphasized in the TEAL classroom is the relationship between the students and the instructor: more specifically, how that relationship shifts from an audience full of students all facing the instructor

positioned at the front of the room to a collection of students interacting with each other while the instructor mediates the activities. This second organization exists in the Jacobs Science Building's TEAL classrooms, as displayed in Figure 3. The workstation, defined by EdTech Planning Group's founder Michael David Leiboff (2010) as the place an instructor periodically returns to during activities, is here placed at the center. As the wiring for the desktop computer and additional electronics goes through the classroom's floor, the workstation cannot be relocated. Therefore, the instructor often moves between the podium, the open space at the front of the room near the projector screen, and the four student tables during class periods.

The altered arrangement currently found in many TEAL classrooms can be an adjustment for many instructors unfamiliar with students focusing on each other instead of the instructor during discussion, as well as students consistently facing alternate directions during class periods. In the article "'It's Not You, It's the Room' – Are the High-Tech, Active Learning Classrooms Worth It?" investigating TEAL classrooms, the initial adjustment to such decentralization for instructors was explored:

> Half of the students in the class may be facing away from the instructor at any given time. Teachers who view silence as engagement will need to adjust their perceptions, as one goal of decentralized classrooms is increased small-group interaction and this activity can be noisy and difficult to monitor…Namely, any efforts to decentralize the room, with an overt focus on group dialogue, are likely to increase the individual student's sense of accountability and lead to the learning gains that result from peer interaction. (Cotner, Loper, Walker, & Brooks, 2013, p. 87)

Figure 3: The instructor's podium, which includes the desktop computer, the station for the iPad as the room's controller, and the adjustable seat for the instructor, is situated in the middle of the four student tables within the classroom space (McClain, 2016a).

Cotner, Loper, Walker, & Brooks (2013) claimed that the decentralization of the classroom, including the grouping of students and the placement of instructor, help to increase student accountability. However, I believe that a separation should be recognized between the grouping of students within a space and the supposed decentralization of the instructor in that same classroom, which awkwardly and incidentally places the instructor at the center of the room.

As valuable as the student tables are for both encouraging group work and utilizing technology, the placement of the instructor's console remains unfortunate. The inability to see all of the students at once (see fig. 4) is not the detriment here, though the view is quite limited when a professor is presenting an activity, conducting a lecture, or coordinating larger discussion. Often during such large group interactions, I will need to pace the room, stand in front of the podium (blocking students in certain areas

of the room from view), or, less often, request that students wheel their chairs in order to create a misshapen circle for the formation of that needed community. Worse placements for the instructor's workstation than the center of the room include the very front of the room, which can convey an authoritarian feeling to students, or the complete absence of an instructor desk at all within the classroom (see Krych's (2015) "Placement of the Teacher's Desk" for further critical discussion on these two stances). Instead, the arrangement of the TEAL classrooms in the Jacobs Science Building would be most improved by shifting the instructor's workspace from the center of the room to the back, allowing the students to remain grouped at the rounded tables with access to all of the same technology.

Placing the instructor's workspace at the back of the room maintains the TEAL classroom's goal of decentralization—as Matthew Krych (2015) asserted, the students still walk in to see that their desks are prominent and that "the teacher has centered the environment on students" (p. 4). With this arrangement, the podium and desktop will no longer be blocking the students' view of additional screens during class presentations, such as when specific tables want to share their group work with the entire class (Leiboff, 2010). Most importantly, students become more comfortable with approaching an instructor with individual concerns, as the back of the room is simultaneously less congested and more accessible (Krych, 2015, p. 4). Moving the instructor's desk into this optimal position, like Krych argued, "can go a long way in determining student and teacher success" (p. 4), and the same commentary follows for the TEAL classrooms at UK's Jacobs Science Building.

Figure 4: The immediate view for instructors in the TEAL classroom is comprised of the desktop screen, the projector screen, and very few of the students (McClain, 2016d).

## Concluding Thoughts

As they consider the overall value of teaching digital writing, Bill Hart-Davidson, Ellen Cushman, Jeffrey Grabill, Dànielle Nicole DeVoss, and Jim Porter (n.d.) considered space particularly, claiming that traditional classroom spaces across different institutions "constrain our work in intellectual and in physical ways." In fact, they continue to value a space's influence concerning student to teacher interactions, student to student interactions, and usable tools to eventual products: "Essentially, space shapes the work we do and the ways in which we interact with one another." Carrying that sentiment forward to the classrooms discussed here, the Jacobs Science Building as a learning environment contributes many advantageous tools that allow students to create and share interesting products (such as documentary assignments on the large screen displays) as well as advance their educations via group work (the six-person tables with moveable chairs). Both the projects that students create and the interactions that students exchange as groups are shaped by the class's actual space; yet, their communication with the instructor must remain relevant as well.

While critical research has considered student engagement with classrooms designed for group work and multimodal instruction, far less research examines the balance between instructor pedagogy and student learning goals in TEAL classrooms. Additionally, even studies that do consider that balance do not yet know the influence of physical space on effective teaching methods in a rhetoric or writing course. Summer Smith Taylor (2009) conducted faculty interviews and student surveys at Clemson University (p. 220) concerning technology-rich studio classroom spaces. Results indicate that the classrooms encourage an "egalitarian approach" during student-teacher interactions (p. 222) and potentially an "active learning pedagogy" (p. 226). However, the study expressly excludes courses taught by English faculty because Taylor claimed "they do not represent typical users of the space" (p. 219). Engida Gebre, Alenoush Saroyan, and Robert Bracewell (2014) did specifically consider the relationship between student engagement and teaching methods (p. 84), and their study at McGill University included philosophy, physics, law, English as second language, geography, continuing education and electrical and computer learning courses conducted in active learning classrooms (p. 89). Yet, the influence of technology on teaching remains unclear (p. 93–94), and instructor placement is not explored alongside student seating. Also, first-year composition courses remain excluded from the study. As this paper's focus is on both instructor placement in relation to student-instructor interactions as well as technology use in first-year rhetoric courses, further research is needed to understand the balance between instructor pedagogy and student learning goals.

During the 2016 Fall semester, the inaugural semester for the Jacobs Science Building at the University of Kentucky, my rhetoric and composition students were able to better distribute image-based blog posts, lead discussions on sections of readings, record soundscapes, find and listen to podcasts and videos, and teach one another how to edit their digital assignments. These positives were possible because of the technology supplied and the group tables used. Yet, the teacher's role as mediator does not work in all teaching situations, particularly in an introductory rhetoric and composition classroom. In the search for a balance between the room and the different types of necessary instruction, any transition back to larger discussion is made difficult by the instructor's workstation in the center of these TEAL classrooms. Brooks' (2011) study displayed that "space, and space alone, affects student learning" (p. 724). Should that statement hold true, the positive aspects of the TEAL classrooms in UK's new Jacobs Science Building do need to be given praise.

However, improvements should also be taken into consideration so that students learn in the best possible space that the university can provide. As the 2012 C&W Conference Town Hall "The Design of Learning Spaces: Perspectives from Across Fields and Disciplines" (Smith, 2012) collectively illustrated, working within innovative spaces requires a reconsideration of modes of learning and pedagogical goals. Based on the findings in this paper, a reconsideration may also be needed for integrated technology and room configurations along the same vein.

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# Keeping Wonder in Check: Balancing the *How* of Digital Tools with the *Why* When Designing Technology-Heavy Writing Courses

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This article extends the conversation from the 2012 Computers and Writing conference town hall "Program or be Programmed: Do we Need Computational Literacy in C&W?" by discussing the pedagogy of computation through a media archaeology of an advanced web authoring course in an undergraduate rhetoric and writing program. Designed in 2008, and taught again with the same design in 2016, two instructors of the course reveal, through its origin story and legacy, the cultural and material conditions inherent in the teaching of web design and/or development in a writing program. We stress the importance of the balance of functional, critical, and rhetorical literacies when teaching courses centered on the building of new or emergent technologies. The designer of the course offers the foundational concepts for the course as well as practical suggestions for the teaching of advanced web design. The media archaeology of this course, old and new, suggests ways to avoid potential traps that a teacher may fall into when teaching a new tool at the expense of focus on theoretical concepts that remain constant across technologies and time periods.

In the 2012 Computers and Writing (C&W) conference town hall "Program or be Programmed: Do we Need Computational Literacy in C&W?" Sample and Vee (2012) introduced the role of code in writing studies through not only research but also pedagogy, noting several scholar-teachers who had offered courses in rhetoric and writing that involved a coding component. The town hall explored the degree to which students of rhetoric and writing should be exposed to code: should students learn to code, and what level of technical proficiency should they achieve in order to do rhetorically and culturally meaningful work? Balancing functional, critical, and rhetorical literacies in emergent technology is an evergreen consideration in our field. While technologies may constantly evolve (and perhaps the Learn to Code movement represents our current cultural moment around emergent technology), Selber's (2004) *Multiliteracies for a Digital Age* provides an ever-applicable conceptual framework for balancing technical, critical, and rhetorical skill building for course design involving computer literacy.

This article extends the conversation of computational literacy in the C&W classroom by focusing on an advanced web authoring course in a rhetoric and writing undergraduate program. In this context, the question of whether students should learn to code is already decided—if they have chosen to take this sequence of courses, they will learn. However, the notion of what is advanced in web design in a rhetoric and writing program is in and of itself a nuanced one; here, a division was created between basic web design, which focuses on building static web pages in HTML and CSS, and advanced web design, which focuses on building more dynamic and interactive web applications. This division might at first glance seemingly reflect a commitment to the development of functional and computational skill building, but, as we will discuss, programming dynamic and interactive applications necessitates a rhetorical understanding of the web that cannot readily be understood without hands-on experience. In this way, the evolution of the web from primarily static content to dynamic, interactive content represents another of what Delagrange (2011) refers to as a "*punctum* of technological change" where

> the practices and habits of mind associated with old media are called into question as we struggle to devise principles and practices for the new. What makes these questions important to ask *again* is that points of remediation have in the past been both opportunities for change and occasions for re-inscription of previous practices (*v*).

To that end, we offer an archaeology of sorts of the Advanced Web Authoring course in this program. We say "of sorts" because we are likening this course to a new and emerging media object unto its own, one for which a close examination of its past may offer some insight into the ways in which the technologies that came before it and continue to emerge may influence the making of media in the present

and future (Parikka, 2012). To conduct this media archeology, co-author Mike begins with the origin story of the course, including what practices and habits associated with old media—namely, focusing on the teaching of specific tools such as Flash and Photoshop—caused difficulties in shaping the rhetorical understanding of advanced web design. Mike outlined his re-design of the course in 2008. Co-author Dawn picked up several years later, revisited the curriculum in 2016 to incorporate advancement in web technologies but remained true to Selber's framework and the balancing work in the earlier iteration of the curriculum.

This archaeology is meant to provide useful artifacts as well as critical analysis of the pedagogy of teaching technology. We include teaching materials so that C&W teachers might use what proves helpful to them in teaching computational literacy in the writing classroom. It is meant to show how the past informs the future in the ways that Delagrange as well as media archaeologists and historians such as Parikka (2012) and Gitelman (2006) discussed. There are potential traps that a teacher of technology may fall into, the most serious of which is being enthralled by our technologies, in getting lost in the wonder and excitement of learning a new tool at the expense of understanding a theoretical concept that remains constant across technologies. For example, while English grammar and syntax would not be considered enthralling in a composition classroom today, when grammar is considered in a language like JavaScript, it runs the risk of becoming so. For this reason, we ground our takeaways in histories of old and new media, so as to reveal what is "always already new" about the web (Gitelman, 2006), and, more important for us as teacher-scholars, the way we teach writers for the web.

## Origins and Legacy of "Advanced Web Authoring"

Mike was hired to teach Writing, Rhetoric, and American Cultures (hereafter, WRA) 410: Advanced Web Authoring (410), for the 2008 spring semester at Michigan State University. It was a companion course to WRA 210: Introduction to Web Authoring (210); 210 was a required course for all students in the Professional Writing (PW) program while 410 was an elective. While 410 was not new, it wasn't yet cogent. It was named web authoring and not design because of a disciplinary dispute over design ownership. The vagueness of the word authoring resulted in a large scope. The official course description at the time was: "WRA 410 Advanced Web Authoring (3 credits). Developing and maintaining large-scale, interactive Web sites. Visual design, usability, audio and video integration, ongoing site management, and web accessibility."

While reviewing materials from previous instructors, Mike was shocked by how much of the curriculum was consumed by the audio and video" components of that description. At least one-third of the course was dedicated to teaching visual rhetoric using Adobe Photoshop and Flash. While there is certainly merit in that subject and those tools, including them in this course was redundant (PW had since added a required course in visual rhetoric) and the time invested in teaching those tools drastically cut into the time available for the fundamentals of designing for the web. The impact of this focus on Adobe tools became deeply felt when asking prior 410 students why a professional writer might be asked to take a web design course, or what business they would have applying for a web design job, and they were hard-pressed to answer.

Dawn came to 410 in Fall 2016, and discovered that in the years since Mike departed, many of the same cultural concerns still plagued the course: the disciplinary considerations of where web design and web development were taught on campus and the course description outlining functional literacy rather than critical or rhetorical literacy (Selber, 2004). While Flash and Photoshop as particular tools had not been taught in the course in years, a general confusion still existed over how this course differed from a computer science course. A critical reflection of the emphasis on audio and visual components also revealed those aspects of multimodality in which rhetoric and writing faculty had more familiarity—the further the course moved toward web design and development, the more difficult it was to staff and to build confidence in the expertise of the teacher. However, as Shipka (2011) noted, this is a common fallacy in teaching multimodal courses: the teacher is the arbiter of the effectiveness of texts produced. This notion privileges the functional literacy skills of students and places the teacher in the role of expert

of technology. Mike's course design (below) addressed this in its assessment strategy, but the lore surrounding web design and development continued to invoke cultural stigma for both students and teachers.

## The Design of Advanced Web Authoring

Mike had two primary goals in designing a new curriculum for Advanced Web Authoring. First, he wanted to build clear bridges between related concepts covered in other program courses (particularly visual and digital rhetoric), making sure students understood those connections but leaving more room in 410 for foundational concepts. Second, he wanted to make sure that the course was foregrounded in concept and theory rather than technology. Where previous sections of the course had invested in learning specific tools or platforms, we would spend no time using tools like Photoshop, Flash, or Dreamweaver. Focusing instead on foundational principles and writing code by hand, students would build a set of transferable skills.

For this, Mike identified three core concepts for 410 that connected web design to writing theory. He developed a project around each concept, utilizing readings from industry sources and tutorials. He also identified one scholarly piece from technical communication scholars for each concept that would help bridge the technical work to rhetorical theory. He focused assessment on design genres rather than markup or code. This not only helped to expose students to the types of writing they might be expected to produce as part of a web design team, but also provided opportunities to reflect on foundational concept attainment and whether they were in the right mindset before they started building their projects. Rather than solely assess the finished code (which could be plagiarized), Mike graded primarily writing they did *about* their technical work.

### Concept 1: Separation of Content from Presentation

Despite being an advanced course, many students come to 410 years after 210, requiring a refresher of some basic concepts. The separation of content (HTML structure) from presentation (CSS) is critical for writers, not just developers. Many will be expected to produce content as *writers* and apply structural markup to it (when writing in/for a content management system, for example), while others may work as *designers* to style and arrange those structured texts for multiple audiences. A thorough understanding of the Document Object Model (DOM) makes it possible for a writer not only to create texts for the web, but also create multiple experiences of that same text depending on the needs of a user.

**Reading**. To reinforce that, students read William Hart-Davidson's (2005) "Shaping Texts that Transform: Toward a Rhetoric of Objects, Relationships and Views." The text is approachable for an undergraduate student and explains how designers create documents that are able to transform to meet the needs of multiple audiences and purposes. These rhetorical strategies involve both ancient practices and contemporary, such as in the design of object-oriented user interfaces. Hart-Davidson laid out "five qualities of valuable web content" that offer a clear value proposition for why writers should, for example, create list items using valid HTML tags rather than hitting the spacebar repeatedly to simulate indentation or relationships (2005, 29).

**Project**. Students design and execute a fully functional static website, built only from HTML and CSS. Mike encourages them to consider developing their senior portfolio websites, which are a requirement of their major, but the students can choose the content. Along the way, they develop a series of deliverables that eventually add up to a full site.

- ***Planning***. Students establish designs before building using genres like wireframes and design comps; this way they learn the conventions of these genres and also have opportunities for early feedback.
- ***Building***. Students then execute their designs, again with many opportunities to get feedback on their document markup and on their CSS. They are evaluated on how effectively they are

able to structure an HTML document and apply styles to that document and demonstrate an effective separation of both.

**Learning Indicators**.

- Wireframes demonstrate how well students understand document objects separated from design: wireframes are meant to communicate structure, not style, and readiness to build standards-compliant document markup.
- Their design comps demonstrate how they are thinking about the application of designs in their wireframes and, again, whether or not they understand the application of type, color, etc., to the document structure.
- The HTML and CSS they develop based on their designs are the ultimate indicators of if they successfully accomplished their design goals. W3C validation is required, and then Mike manually inspects their markup to see just how effectively they separated their content from presentation.

The instructor shares the project rubric with students on the first day of class so they can see how everything from the first two weeks builds to the completed project (the portfolio). Breaking it up in this way helps students understand not only the process but also final assessment. It also helps alleviate concerns about mastery of the technology: seeing the project from a higher level to understand that it is much less about learning the intricacies of the technology and more about the concepts as demonstrated in the planning documents.

## Concept 2: Information Architecture and Writing for/with Databases

Students read "Shaping Texts That Transform" in the first unit not only because it reinforces why writers should care about markup language, CSS, and the DOM, but because it also introduces a second level of abstraction involved in writing and designing for the web. Most of the modern web is driven by databases, or systems that store information and repurpose that information in a variety of ways. This is a not just a separation of content from presentation, but a separation of content from *structure*. A content management system, for example, allows storage of writing separate of layout, making it possible to drop content into any template with any structure. This allows a service like Amazon to display its catalog content both on their website *and* in a mobile app *and* in third-party services like sites that track pricing trends. In many cases, writing for the web is not about designing content for a specific audience or a specific display, but designing content that can be repurposed for any number of audiences and situations. Writers need to understand this conceptually if they are going to be well prepared to write and design for the web. They experience this daily in every web-based service they use, but most have not engaged with it in a conscious way.

**Reading**. Students read Barbara Mirel's 1996 chapter "Writing and Database Technology: Extending the Definition of Writing in the Workplace." It was published in the earliest days of the World Wide Web and does not describe working with the web at all, but it provides great insight into the rhetorical processes behind using database technologies to develop reports for a wide range of audiences and purposes. Not explicitly connecting to the web makes this piece even more valuable—highlighting the rhetoric behind database-driven composition is much easier when students themselves have to make the connection between technologies.

**Project**. Students design and build a simple cataloging system that would focus on one type of object (most students chose to design a system to catalog their book or movie collections, others focused on objects like recipes or guitar tabs). They design and build a database to store information about their object (they entered multiple records, or data about particular representations of their object) and then build a series of displays for their object's records.

The goal of this project is not to have the students build something as complex as a content management system, but to give them experience working with databases and using granular database content to create custom views and displays for different audiences and purposes. The project also provides a very focused and guided first step into server-side programming for the web—their experience

to this point is client-side (markup and design for the browser)—but, to create and use database content, they need to do some programming.

Mike adopted PHP and MySQL to create this project not because these are the best technologies but because they are the most widely used and in tools students would likely be expected to use in the future (e.g., WordPress). Extensive resources are also available online for students who want to learn more or need additional support beyond the classroom.

**Learning Indicators**.

- Students first produce database diagrams that detailed the types of metadata they would use to describe their objects and serve as a blueprint for the database tables they would actually build. These diagrams show whether or not the student understands their object as an *information* object and whether or not they will collect all of the information they need to create an effective project.
- Wireframes for their catalog show if they have grasped the scope of the assignment (that they know they need to create multiple views of their objects) but also whether or not they have mapped their design to content from the database they built - each piece of information on a wireframe has to be sourced to their database content, and the wireframes show if students grasp that.
- A functional project: A working database-driven website demonstrates that a student grasped both levels of abstraction (separation of content from presentation as well as content from structure) and ability to build context-specific views using granular bits of content from a database. The website also shows that the student built on concepts from the first unit, and the code for those documents shows how they were building their database queries and utilizing the bits.

Students receive the Unit 2 rubric on the first day, again so they have a sense of scope of the project and of how Mike assesses how well they grasped the concepts. This is another opportunity to put the students at ease about working with a new technology—the rubric heavily emphasizes the planning genres, with less weight on the technology.

## Concept 3: Writing with/for Content Management Systems

While learning Concepts 1 and 2, students get a taste of the kinds of writing and design they be expected to do most often on the web. The last concept of the course was to experience exactly what "writing" often looks like on the web by introducing them to content management systems. The PW program already had a dedicated content management course, but that course was heavily focused on concepts and organizational culture and less on the nuts and bolts of setting up, writing in, or maintaining a content management system (CMS).

There are arguments to be made for many open-source content management systems, but Mike chose WordPress for its ubiquity. WordPress is an open-source platform with extensive documentation, third-party plugins for customization, and large communities where users can find support. WordPress currently drives more than a quarter of the entire web, including major content organizations like Conde Nast (Protalinski, 2015). Odds are that professional writing students will not only be expected to write for an organization that uses WordPress but that they might also be asked to install, customize, or maintain it.

**Reading**. Mike chose Dave Clark's (2008) "Content Management and the Separation of Presentation and Content" because it not only explains content management as a concept but also bridges to core rhetorical concepts about audience and customization raised by the earlier readings. It makes a clear case for how writing changes in these systems and discusses the new challenges faced when we no longer write "documents" but rather bits that must be stored, organized, and customized for context.

**Projects**. Once students have installed and configured WordPress on their own servers, they are tasked with developing a theme and a custom content type. Themes in WordPress are custom templates that seamlessly render the functionality and appearance of sites, such that a user can quickly choose a theme with their intended purpose and audience in mind (for instance, choosing a blog or a portfolio

theme). Building a custom template forces students to engage with WordPress's information architecture and to build new views using their data objects. Likewise, a custom post type in WordPress allows students to expand the types of content WordPress can store, making it possible for WordPress to manage content beyond merely pages or posts, to Frequently Asked Questions, Events, Recipes, and more. Again, students apply what they already know about information design to diagram their objects (most re-use what they designed for project 2) but implemented inside WordPress's garden.

**Learning Indicators.**

- Design documents: As with other projects, students plan their products using wireframes and database diagrams and use those for early feedback before developing any code.
- Themes: Themes in particular demonstrate that students understand WordPress's information architecture. Developing a theme requires them to know how to work with WordPress's content engine known as The Loop and use those granular bits (title, author, publish date, body, tags, etc.) to create new layout and organization.
- Custom Post Types: Here, again, learning can be assessed early. For a custom post type, students must develop a form that lets them create new entries and then a new template for displaying that content. Each moment is a place to stop and assess whether they have executed the concepts from their designs effectively and to intervene when necessary.

While still very important, design genres are not as prevalent in Unit 3 projects as in earlier units because, at this point, students will have considerable experience writing in these genres. This unit relies on feedback groups much more extensively, sometimes having students meet at each session to share their progress or give input on their materials. Students are usually comfortable and confident enough by this point to give each other helpful feedback and help each other recover when necessary, giving them more opportunities to engage with and reinforce the concepts.

## Conclusion: Implications for 2016 and Beyond

When Dawn began teaching 410 in fall 2016, Mike shared his course materials with her (he had not taught the course for several years), and she began the process of updating the technical specifications of the course to catch up with current web standards. However, Dawn wanted to emphasize that updating functional technical components of the course (for example, moving to the latest web standards: XHTML to HTML5 and CSS to CSS3) was not difficult because course's focus on a rhetorical understanding of the web. Dawn also added a final unit (that she discussed in this Sweetland DRC blog post) to connect all course concepts through a collaborative social networking site re-build. But as Mike mentioned above, the rhetorical theory that is the backbone of the course remained the same. While technological advancements will continue to accumulate, the goal of the course is to ensure that, conceptually, students understand what the web is and why they as professional writers might design and write for it.

In Dawn's blog post, she attempted to connect critical making inherent multimodal composition pedagogy (see Shipka, 2011) to web design and development, particularly as the latter are brought into PW and rhetoric and writing courses' curricula. While we focus here on an advanced web design course, it is crucial to mention that the concepts here can be translated to any course in which digital tools are used. While this course focuses on the tools of web designers and developers, educational technology tools, graphic design tools, and many more are now embraced in rhetoric and writing courses. The scaffolding we present above for each project (a concept, a reading focused in rhetorical theory, a project with applied and iterative components, and learning indicators that reflect both rhetorical and technical knowledge) can be used with any technology. For programs interested in adding web design to their PW or rhetoric and writing programs, a good first step might be to compare the pedagogy for the teaching of tools in other multimedia courses in the pre-existing curriculum. Aligning these creates consistency and eases students into learning new and emergent technologies across contexts.

A final important implication to this "media archaeology" of 410 is situated in the material, cultural, and political nature of making, expertise, and assessment in a web design course in a PW program. If, as the course description describes, developing and maintaining websites is the primary task of the course,

void of context, it situates functional technological literacy as the sole goal of the course. This has two negative effects. First, it terrifies both writing teacher and student alike as they imagine memorizing syntax and taking (and grading) timed coding tests. This fear existed in 2008, and this fear will exist in 2108, unless the rhetorical, the why, is foregrounded in our discussions of web design in C&W and in rhetoric and writing more broadly. Second, when functional technological literacy is foregrounded in curriculum design, both teacher and student perceive expertise to be situated in the ability to code, rather than in why it might be important to know *how* to code as well as *why* and *for what world* we are creating with that skillset. The power of a web design course in a PW program is the possibilities that exist when a critical maker enters the workforce armed with the desire to do good. An archaeology of this course reveals that this student-as-critical maker can be supported by web design curriculum that encourages rhetorical awareness and critical questioning of current industry tools.

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# #MyNYPD Nodes and Networks: Mobilization and Engagement

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This article will discuss a social network analysis of tweets within the #MyNYPD protest, a public protest against police brutality and abuse of power that occurred via Twitter. I examined the five days containing the most tweets from six months of collected data to understand: What are the relationships between/among players' activity online? The tweets were collected through Node XL and then analyzed through Gephi, social network analysis software. Through examining the most proficient tweeters, either by the number of tweets or the number of retweets their tweets garnered, the connections between different players and their roles within the protest are discovered. This analysis of one day, April 9, 2015, visualizes the connections and communities formed within the #MyNYPD protest. Particular people enable the connections within the protest allowing the protest to sustain itself. These connections provide essential information in understanding how protests not confined to a specific geographical location can be maintained and flourish as agents of social justice.

## Introduction

Much debate exists on the value and extent that Twitter (and other social media or social networking sites) can contribute to successful activism for social justice (Hands, 2011; Morozov, 2009; Shirky, 2011). Previously, scholars' assessments of online activism have tended to turn on a simple binary: either the activity enjoyed complete success for a social movement (for instance, during the Arab Spring an overthrow of a regime) or else the campaign was designated as a failure. Understanding how online protests work and how people can engage and contribute to protests not tied to a geographical location provides avenues and agency with which to fight for social justice. This understanding has gained relevance with the most recent election and the discussion of how to proactively mobilize and engage in activism, along with the question of how to sustain interest in a controversy.

This article will discuss a social network analysis of tweets within the #MyNYPD protest, a public protest against police brutality and abuse of power that occurred via Twitter. Started as a public relations campaign organized by the New York Police Department (NYPD) using the hashtag #MyNYPD, the campaign asked citizens to tweet pictures of themselves with police officers (Figure 1), and the public did, just not in the way the police department envisioned. Instead of positive photos with the police, the public organized online to share pictures of police brutality and harassment. What differentiates this use of Twitter within a protest is that the public subversively took control of a New York Police department public relations campaign and an organic grass roots effort occurred, thus turning the hashtag #MyNYPD into a bashtag.

I examined the five days containing the most tweets from six months of collected data to understand: What are the relationships between/among players' activity online? The tweets were collected through Node XL and then analyzed through Gephi, social network analysis software. However, the scope of this article will focus on one day, April 9, 2015, and the variety and type of interactions occurring during this day. Through examining the most proficient tweeters, either by the number of tweets or the number of retweets their tweets garnered, the connections between different players and their roles within the protest are discovered. This analysis visualizes the connections and communities formed within the #MyNYPD protest. Particular people enable the connections within the protest allowing the protest to sustain itself. Keeping incidents of police brutality in the public eye through the inclusion of sources outside of the protest brings attention to these incidents and is an important function/role of the nodes as it provides a repository for #MyNYPD protest incidents.


Figure 1: Initial tweet from NYPD.

## Node Basics: Connections, Additions, and Roles

In this section I will introduce the components of a simple network connection, then explore how the network becomes more complex through the addition of nodes and interactions, and finally discuss the roles different people can play within a network.

### Simple Network Connection

In Figure 2, Node A is the source as the arrow is pointing to Node B, indicating Node B is the target. Node A could have retweeted Node B, or mentioned Node B in a tweet. The actual tweet would need to be examined to determine the exact focus of the interaction.

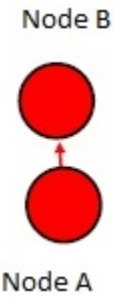


Figure 2: Simple network connection.

A few examples from my data set for this case study of the possible interaction between Node A and B are as follows. Below, I first restate the content from the node; next, in parentheses, I explain the activity spurred by the interaction.

1. RT @Node B #MyNYPD at it again (Node A is retweeting what Node B tweeted)
2. @Node B #MyNYPD another incident! (Node A tweeted a message to Node B, or Node A replied to Node B).

The simple network connection is the building block of the discursive activity that drove the #MyNYPD movement visualizing the basic interactions that can occur within this protest.

## Adding Interaction to the Network

The complexity of networks develops from the interactions between nodes. The previous section discussed a simple network connection with only one interaction. However, more nodes and more interactions indicate more involvement within the community. Building on a simple network connection, next I will discuss how additional interactions are visualized.

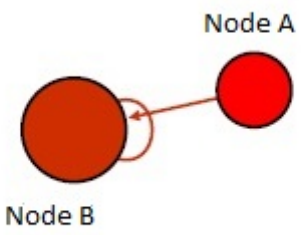


Figure 3: Simple network connection with more interaction.

Figure 3 is similar to Figure 2, where Node A is retweeting or mentioning Node B. However, in this example, Node B additionally has an edge that connects to itself. This indicates that Node B also has a tweet in this data sample. In Figure 2, Node B could have a tweet, but if Node B tweeted on January 1st, and Node A retweeted the tweet on January 2nd, and the data for this network only contains interactions from January 2nd, there would be no edge indicating that Node B had tweeted.

The size and color of the nodes indicate a person's influence or participation within the network. Node B is larger and a slight orange color indicting that Node B has more interactions than Node A. In this case, there are two interactions (a tweet, and a retweet, mention, or reply-to) from Node A. Node A is smaller and a red color indicating less interactions, in this case only one interaction, and that is with Node B.

Additionally, the weight and color of the edge indicates the number of interactions between the two nodes. In the case of Figure 3, the weight and color of the edges are the same, indicating that they are equal, and in this case the edges represent one interaction from Node A, and one from Node B.

## Nodes and Networks in #MyNYPD

In understanding how networks work, there are multiple aspects to consider; it is not only the nodes and the connections between nodes but also the outcome generated by the actions of the nodes (Easley & Kleinberg, 2010, p. 4). Social network analysis enables us to understand the nodes and connections and their results. First, I will explicate the terms within a social analysis and in particular the #MyNYPD protest, then I explain the methods and tools used to accomplish the social network analysis. Next, I analyze April 9, 2015 to show the benefits of social network analysis.

Networks are symbolized through nodes and edges; nodes are the entities within the network, and edges are the paths that connect the nodes (Johnson, Everett, & Borgatti, 2013; Easley & Kleinberg, 2010; Hansen, Shneiderman, & Smith, 2011; Smith et al., 2009). In this case study, a node is a Twitter user and is labeled with her or his respective user name. The edges (the lines) that connect the nodes indicate an interaction among the nodes. An interaction may be a tweet, regardless of whether anyone retweets or replies, or it may be an engagement with another Twitter user through a retweet of a tweet, a mention of another user within a tweet, or a reply to a tweet. Interactions through nodes and edges visualize the connections between Twitter users, and specifically in this case study, members of the #MyNYPD protest.

Networks are either directed or undirected; in this analysis I use only directed networks. The constructed graphs created by the social network analysis software visualize interactions through directed networks that have an arrow at the end of the edge indicating which node is the source (created the interaction) and which is the target (received the interaction). Undirected networks only show the edges between the nodes and not how the nodes interact with each other (Borgatti, Everett, & Johnson, 2013; Easley & Kleinberg, 2010; Hansen, Shneiderman, & Smith, 2011). Therefore the essential difference between the two is that directed networks show the node that tweeted and the node that received the interaction visualized through an edge with arrows showing the initiator and the receiver. Undirected

networks provide no indication of the relationship between the two nodes. To pursue the question driving this analysis, a directed network allowed me to discover how the nodes within my data set interact with each other.

## Data Collection Methods

In order to analyze a sufficient amount of data, I collected data for a six-month period (January 13, 2015–July 12, 2015) using NodeXL to harvest any tweets containing the hashtag #MyNYPD.

### Defining a Tweet: Node XL

When I refer to tweets gathered through this software, it could be a tweet, retweet, replies, or a mention using #MyNYPD. It is important to note the difference between a reply and a mention. A reply is a response to another user's tweet and will include the recipient's user name at the beginning of the reply. For example, Node A replies to Node B: @NodeB I agree #MyNYPD needs to stop! A mention contains a user name any place within the tweet. For example, Node A mentions Node B: #MyNYPD needs to stop! Right @NodeB. Therefore, all replies are mentions.

I explain this collection of data in NodeXL in more depth below. Node XL collects data by creating a row of data for each interaction within a tweet. One tweet may have multiple interactions, but each interaction is recorded in Node XL with a separate entry. For example, the tweet by Node A—"@Node B @Node C RT @Node D Cops involved again!"—would have three rows of data in Node XL, while only being one tweet. Node A mentions Node B (first interaction), mentions Node C (second interaction), then retweets Node D's tweet (third interaction). Therefore, Node A is directly mentioning Node B and Node C to alert them to Node D's tweet. For an example of how this might look, see Table 1.

| Vertex 1 | Vertex2 | Relationship | Tweet |
|---|---|---|---|
| NodeA | NodeB | Replies To | @NodeB @NodeC RT @Node D Cops involved again! |
| NodeA | NodeC | Mentions | @NodeB @NodeC RT @Node D Cops involved again! |
| NodeA | NodeD | Mentions | @NodeB @NodeC RT @Node D Cops involved again! |

Table 1: Example of a tweet displayed in reference to interactions.

Node XL defines Twitter activity according to three categories: tweet, mentions, and replies-to. The decision of what category each interaction falls into depends primarily on the usage of Twitter usernames. An interaction without any other usernames is labeled a tweet, an interaction that contains usernames is designated a mention, and an interaction that begins with a username is considered a replies-to. A mention can be a retweet or a message to another user. Additionally, a replies-to could just be a message to another Twitter user; there is not a designation for replies-to such as there is for retweet (RT), with RT preceding the user name.

Examples of these categories are as follows:

- Watch out! #MyNYPD on the prowl. (Tweet)
- RT @Node B #MyNYPD at it again (Mention)
- Be careful at the #MyNYPD protest today @NodeC (Mention)
- @Node D #MyNYPD another incident! (Replies-to)

Since a retweet is labeled within NodeXL as a mention, along with tweets that are mentions, data would need separation on an additional level to only include tweets with the preceding RT in order to separate retweets from mentions.

### Charting the Data

I then separated the data by day and charted the data to determine how many tweets using the hashtag occurred on a daily basis. The use of a 24-hour time period allowed for an equal time period for data

separation. A longer time period, such as a week, would provide more data for the network graphs but create more crowded and unwieldy graphs, making analysis more difficult. Figure 4 contains data for the entire six months, establishing that while #MyNYPD had ebbs and flows within its use, the hashtag continued to be used throughout the six-month period.

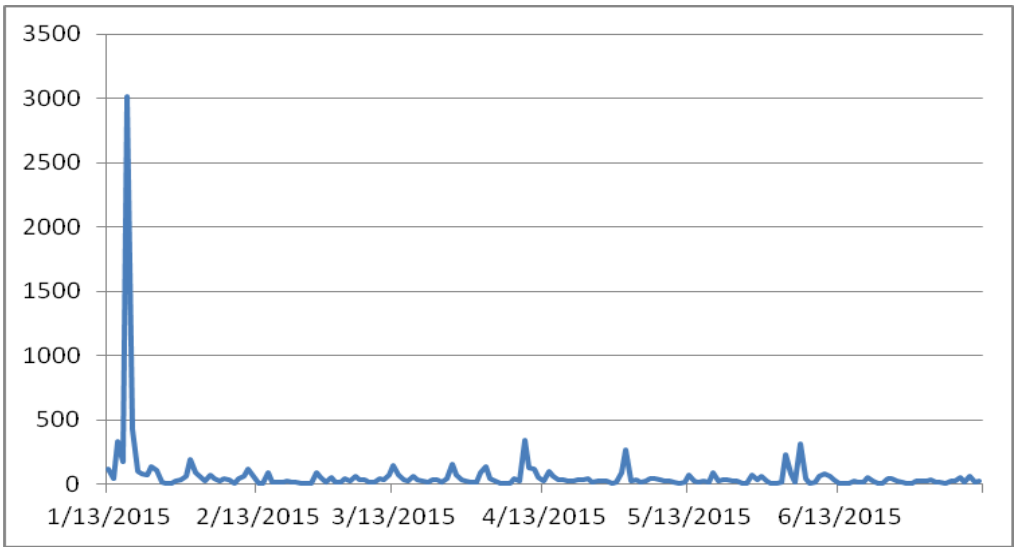


Figure 4: Tweets from January 13, 2015—July 12, 2015.

Next, I needed to determine the five days with the most tweets, so I sorted the days by the number of interactions from each day. Table 2 below shows the five days containing the highest number of tweets. In this six-month data set, there are three days in the month of January, one day in April, and one day in June. I chose five days in order to visualize a diversity of days and data within the protest. This strategy offers insight into activities and roles within the community; of course, this decision also limits insight into other concerns beyond the parameters of this study, concerns regarding, for instance, what connections are occurring in days with lesser interactions and what connections are occurring outside of the six-month data set.

| | |
|---|---|
| 6/5/2015 | 319 |
| 1/15/2015 | 333 |
| 4/9/2015 | 347 |
| 1/18/2015 | 425 |
| 1/17/2015 | 3019 |

Table 2: The five days with the highest number of tweets.

With these data identified, I was then prepared to pursue an analysis that would permit me to address the research question at hand: What are the relationships between/among players' activity online?

## April 9, 2015 Analysis

I selected April 9, 2015, which contains the third highest number of tweets, to illustrate the connections and communities which continue to sustain the protest. First, I provide a general overview of the day's network graph. Then, I discuss two major players within the same community, Gawker and desusnice, and their tweets and interactions within that day. Finally, I discuss two minor players within the same community, Combat_Jack and PzFeed, and their tweets and interactions. Key findings from this

section show the degree of connection between two communities can be as small as one user and that participants actively bring new information regarding police abuse and misbehavior into the protest from outside sources.

In understanding the social network analysis figures (5, 6, and 8), what is valuable in these data visualizations is the connections these graphs show for one day of data, including two nodes creating a major community (A) and their interactions, two nodes creating a minor community (B) and their interactions, and the node (C) connecting these two communities. It is not necessarily who (i.e., user name) is tweeting, but how are the tweets connected (edges) to other users (nodes). This visualization allows for an analysis of a day's worth of data or a single tweet (the minimum and maximum parameters of my study), allowing for insight into how Twitter works within a protest.

In viewing Figure 6, we see the major community with two primary nodes and their multiple edges to multiple nodes (A) along with a connection to a smaller minor community (B) and lastly the node (C) that connects the communities of A to B. Additionally, other nodes and edges representing additional tweets are present, as well as orphan nodes (nodes without any interactions).

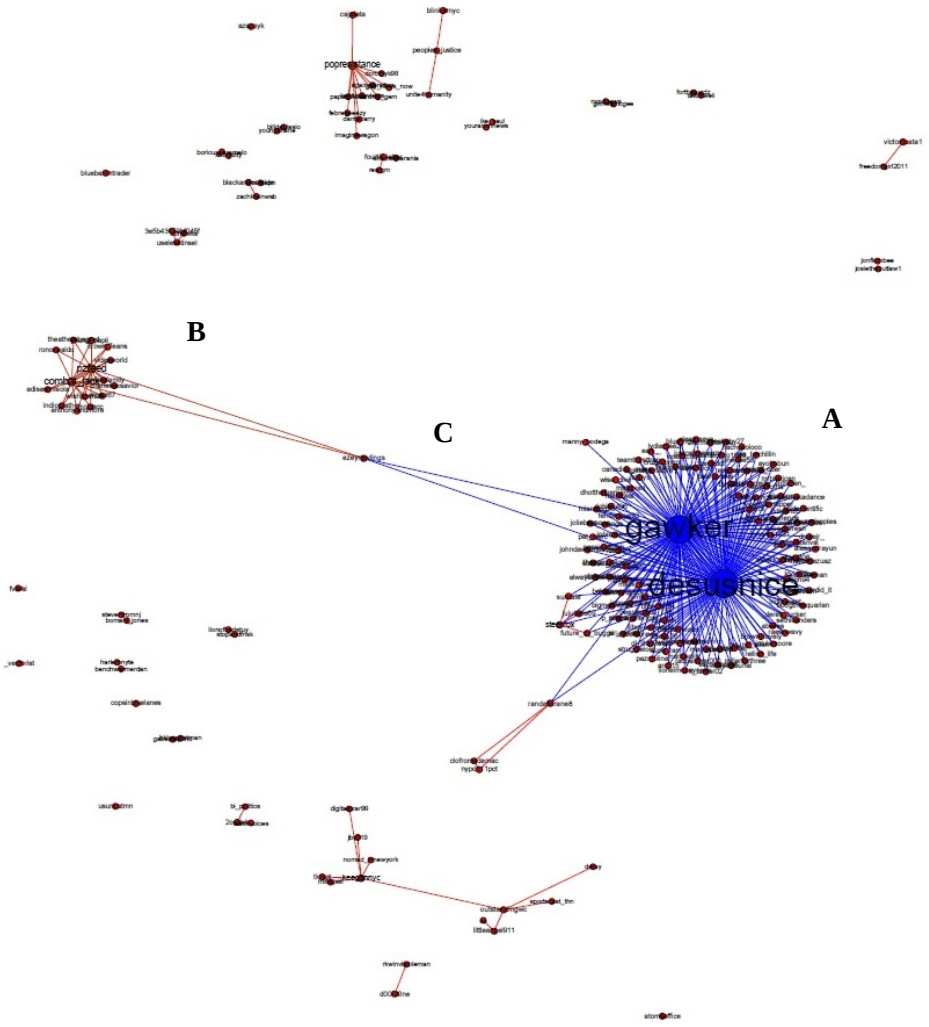


Figure 5: Social network analysis of #MyNYPD from April 9, 2015.

## General Analysis of April 9, 2015

The day with the third highest number of tweets contains 347 tweets and the resulting network consists of 213 nodes and 343 edges, meaning that multiple nodes created multiple edges, very different from January 15, 2015, with 330 nodes and 328 edges. There are multiple players as in the other data sets, but the two major players, Gawker and desusnice, are entwined within the same community. There are also active minor players who are joined to the main community and others that are separated. The minor players, Combat_Jack and PzFeed, who are joined to the main community, are also embedded together within their minor community, resulting in two communities containing two main players embedded in a type of solar system network. Figure 6 provides a closer view of the major community (A) along with its connections to a minor community (B) through one node (C).

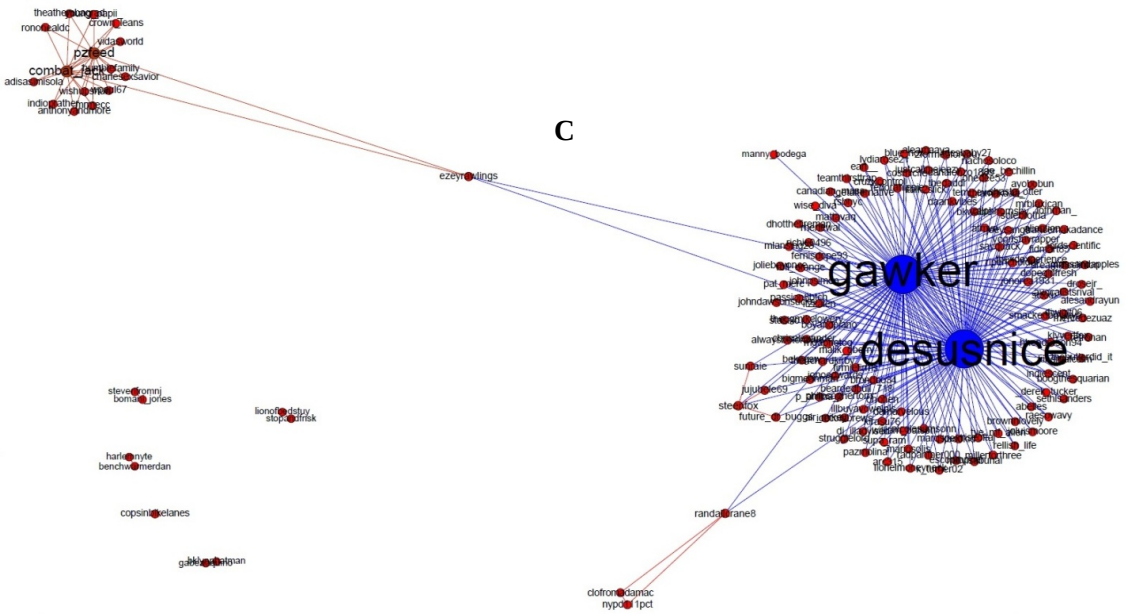


Figure 6: April 9, 2015 Gawker and desusnice's interactions.

## Gawker and desusnice's Tweets and Analysis

Gawker has 127 interactions and desusnice has 126 interactions; together they account for 73.7 interactions with other nodes within the community. The roles of Gawker and desusnice are combined within a retweet, as desusnice retweeted Gawker's tweet; therefore, desusnice has one less interaction than Gawker. Gawker and desusnice are then connected to the minor community through a single node, EzeyRAWlings. In this case, when a node retweets desusnice's retweet, an edge is created for both desusnice and Gawker, due to the mention of Gawker in the retweet (Figure 6). It should be noted that Gawker is an entity, as the description of Gawker from Gawker's home page is, "Today's gossip is tomorrow's news." Applying this description to Gawker's tweet, it would appear Gawker is participating not as a member of the protest but instead providing information about an event as news. However, since desusnice is a follower of Gawker, he is able to spread the information about a corrupt police officer to the protest members. Interestingly, Gawker does use the word allegedly in the tweet, perhaps because Gawker is a media entity and not an individual.

## Combat_Jack and PzFeed's Tweets and Analysis

As previously mentioned, EzeyRAWlings is the node that connects the major community and the minor community. Major and minor communities are defined as such based on the number of interactions that occur on that particular day. Therefore, a set number of interactions does not define a major or minor community. EzeyRAWlings retweets desusnice and Combat_Jack, creating the connection between the two communities. Combat_Jack and PZFeed's community is a smaller representation of desusnice and Gawker's community. Figure 8 shows the smaller community (B) in detail, and it alsoshows the similarities between the connections between the major and minor communities and their interactions.


Figure 7: April 9, 2015 desusnice's retweet.

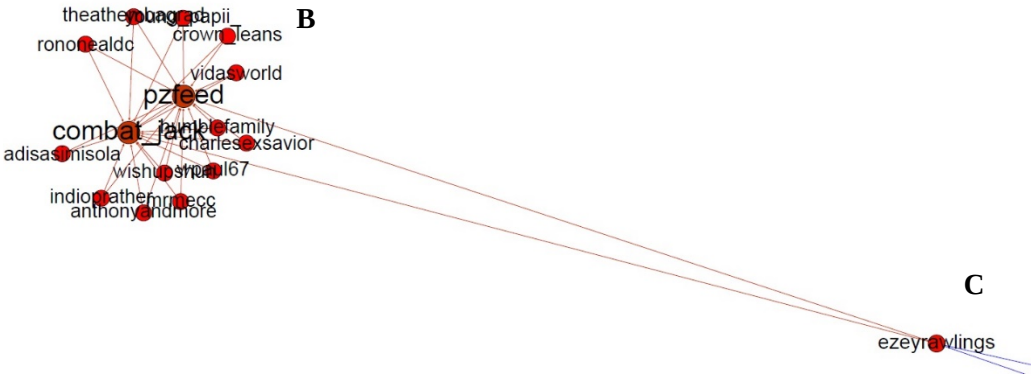


Figure 8: April 9, 2015 Combat_Jack and PzFeed's interactions.

As Combat_Jack retweets PzFeed's tweet, resulting in 14 interactions for Combat_Jack and 15 interactions for PzFeed, Combat_Jack also uses a Twitter convention not seen up until now where his tweet (Figure 9) included the quote tweet instead of using RT preceding the tweet allowing him to include new text. By adding #MyNYPD, Combat_Jack moved this information from general news into the venue of the protest. desusnice (Figure 8) did a similar thing but used RT instead of a quote tweet and added #MyNYPD before RT @Gawker.

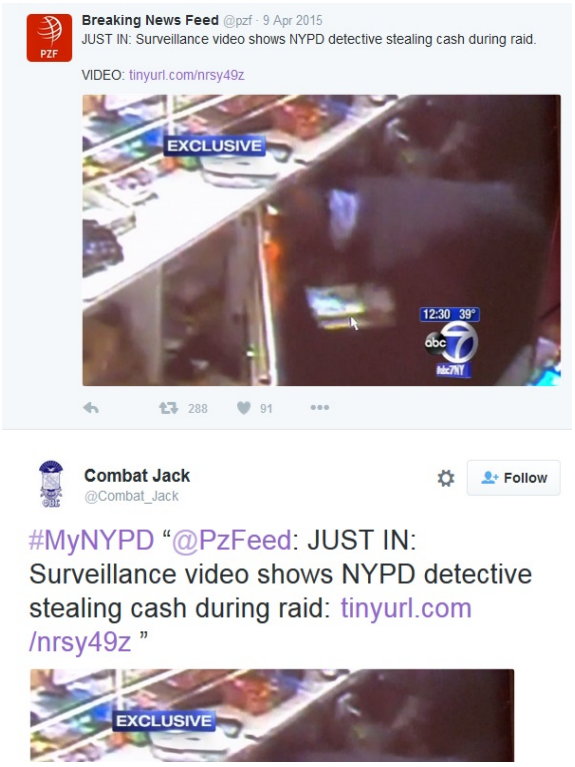


Figure 9: April 9, 2015
Combat_Jack's retweet.

PzFeed's Twitter account description reads, "Real-time updates on breaking news and critical event stories as they happen," which is in contrast to Gawker's "gossip purpose." PzFeed's tweet's topic is similar to Gawker's, exposing a police officer who pilfered money from a business during a bust; however, note the difference in word usage. PzFeed tweeted, "video shows NYPD detective stealing cash" while Gawker tweeted, "NYPD cops suspended after allegedly stealing $3,000." PzFeed implies that the police officer has already been tried and convicted, while Gawker uses the word allegedly, making the point that the police officer has not been convicted of anything, only accused. Videos can be faked, or taken out of context, so due diligence would serve a purpose in this situation especially since PzFeed's Twitter account description leads one to believe he is reporting the news rather than giving a biased viewpoint. While it is important to expose an abuse of police power, keeping perspective and keeping things ethical validates the protest and prevents it from being dismissed.

What is important in this network is the work that desusnice and Combat_Jack participate in through their tweets. Both tweets are retweets, but they realize the importance of the information in relation to their protest and add the hashtag #MyNYPD, thus broadening the scope and the followers that the information reaches. Through this discovery of outside information from sources outside the affinity space, desusnice and Combat_Jack actively engage with this affinity space through their affinity against police misconduct and abuse.

## Conclusion

The diversity of relationships between players' activity online is evident in this analysis of one day's activity. What is important in this specific network analysis is the work that desusnice and Combat_Jack participate in through their tweets. Both tweets are retweets, but they realize the importance of the information in relation to their protest, and add the hashtag #MyNYPD, thus broadening the scope and the followers that the information reaches. Through this discovery of outside information from sources outside the #MyNYPD space, desusnice and Combat_Jack actively engage with this online space through their efforts to expose police misconduct and abuse. As participants and everyday citizens, they actively bring new information regarding police abuse and misbehavior into the protest from outside sources, sources and events that might not be known otherwise to the #MyNYPD protest. Additionally, the degree of connection between two communities can be as small as one user, whose actions enlarge the potential audience and result in sharing information between different communities. This rhetorical work allows this protest to sustain and continue its efforts to expose police misconduct and abuse while advocating for social justice.

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# The Same Old Racist Stuff: White Fragility, Rhetorical Listening, and Affect in Online Writing Instruction

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This article mines two moments of dysconscious racism—one in an online writing course on the topic of race and public space, the other during and after the delivery of this paper at Computers and Writing 2016—to locate the cultural logics, emotions, and affects that drive each. Rooted in white supremacy and expressed as white fragility, these logics and dispositions underpin moments of dysconscious racism yet remain ripe for interruption, disruption, and reconfiguration. Listening from a stance of openness to how differently positioned bodies responded to these racial disturbances offers opportunities for reflexive self- and interpersonal work toward racial justice, work that is indispensible, however difficult it may be, when Black lives seem not to matter.

Despite late twentieth century beliefs that the internet would be a utopia capable of uniting all people equally, online spaces usually reinscribe and often exacerbate existing power differentials, such as patriarchy and white supremacy (Selfe, 1999, p. 294), both in visual representation and computer code (Nakamura & Chow-White, 2012). Cynthia Selfe (1999) noted a U.S. tendency to both hold optimistic beliefs about the potential of networked communication and behave conservatively so as to maintain the status quo. For example, the belief in an "un-gendered utopia" online masks the status quo of patriarchy, a narrative Selfe titled "the Same Old Gendered Stuff" (p. 307). Similarly, despite early twenty-first century pronouncements of a post-racial era after Barack Obama's election, white supremacy remains the status quo: the Same Old Racist Stuff. And while scholarship in Computers and Writing has urged writing teachers to imagine interfaces not coded by colonizers (Selfe & Selfe, 1994, p. 500), imagining change remains easier than implementing it. As a result, interfaces most commonly used in higher education paradoxically open access to marginalized groups while also repeating the colonial demand to assimilate into the same old analog hierarchies (Nakamura & Chow-White, 2012). This article mines two moments of racial discord—one in an online writing course for first-year writers on the topic of race and public space, the other during and after the delivery of this paper at Computers and Writing 2016—to locate the cultural logics, emotions, and affects driving each. While these logics, emotions, and affects sustain a stubbornly status quo of white supremacy, those committed to racial justice must just as stubbornly persist in the fight.

## Invisible Bodies

In a first-year writing (FYW) course taught online during the spring 2015 semester at a large, Midwestern research university on the topic of race and public space, computer mediation prevented students from seeing each other's bodies, with their myriad cultural and communicative cues, during once-a-week synchronous meetings held in Adobe Connect. Meant to replicate face-to-face (f2f) meetings, these discussions were to have taken place over video chat where bodies would be visible. But since the platform (and I) handled multiple video feeds poorly and students were uncomfortable appearing on camera, they, like students in most online writing courses (OWCs), "saw" each other as disembodied names and lines of chat text.

Halfway through the semester, two White students took over class discussion to deny that race was a factor in the murder of twelve-year-old Tamir Rice by a Cleveland police officer. In doing this, they went from being "white people," whom Damon Young (2015) described as "just people," to "White People" for whom "their whiteness becomes their most prominent quality." Young continued:

> Basically, White People without historical, cultural and racial context are just white people. But it's nearly impossible to remove that context, so when you're dealing with a white person, there's always the chance that those pesky White People might decide to appear, too.

For the two White students, whiteness overwhelmed humanity, and they argued the following: that Rice would have been killed if he had been white (because he had a toy gun), that he was responsible for his own death, that no one can know what the officer was thinking so he should not be judged as racist, and that racism does not motivate violence against Black people, whom the two students claimed are always judged "innocent" in public (contradicting all course materials). When one of the two Black students in the class appealed to her own experiences with racism, her White classmate, who could not and did not see a Black body speaking, dismissed her claim as not being "real." Denial, defensiveness, dismissal, anger, silence (among other white students): these responses characterize white fragility. Robin DiAngelo (2011) defined white fragility as "a state in which even a minimum amount of racial stress becomes intolerable, triggering a range of defensive moves" to "reinstate white racial equilibrium" (p. 54). As I detail later, the circulation of cultural logics about race and the emotions and affects tied to those logics in the OWC's rhetorical ecology enabled this white fragile response for ten minutes.

An eerily similar thing happened when I presented this paper at Computers and Writing 2016. After I framed the moment and before I provided details, a white woman raised her hand, five fingers splayed as though she was timing me, and I, confused, acknowledged her. "I don't think that's racist," she said. Flustered, I assured her the racist part was coming. As I also detail later, her statement cast a pall of negative affect over the room: yet again, a white person became a White Person and a fragile reaction to race talk dominated the Q&A of one of the most diverse panels at the conference. This is the Same Old Racist Stuff; we can and should refuse it.

At the time and for months afterward, this moment seemed strange to me because, as an inhabitant of racially privileged body, I rarely witness such overt denials of racism. But these denials are in fact "ordinary and frustrating" for those not in racially privileged bodies (Condon & Young, 2016, p. 6). Frankie Condon and Vershawn A. Young (2016) noted:

> Structural inequality seems more entrenched than ever and the denial of white Americans both more inexplicable and more intractable. However, the evidence of ongoing racism seems insufficient either to convince white Americans that racism is both real and matters or to compel them to address racism in any systemic way. (p. 3)

Condon and Young (2016) categorized the myriad manifestations of racism in academe—the "unexamined curricula, careless, ill-considered or unreflective teaching practice"—as "'dysconscious racism,'" a term coined by Joyce E. King (1991) to describe "'an uncritical habit of mind…that justifies inequity and exploitation'" by "'tacitly accept[ing] dominant White norms and privileges'" (Condon & Young, 2016, p. 3). This uncritical habit of dysconscious racism can be lethal, benign, or beneficial, depending on one's body. Sustaining it are cultural logics of race and the affective and emotional dimensions of white fragility.

I remain struck by how closely the white audience member's interruption matched the white students' resistance. But where the students were traditionally-aged first-years from whom every teacher of writing expects failures, even epic ones, the audience member was a colleague with a faculty position. And while I argued then that my FYW students' inability to see the racial differences in the virtual room hindered their ability to hear arguments based in Black students' experiences, no such barrier existed at the conference. Hence, although an OWC with a synchronous meeting space meant to replicate f2f discussion likely operates best when students can see each other's bodies (through video introductions, vlogs, photos, etc.), visibility does not guarantee a successful response to intensely affective moments. Rather, *making a teaching moment is a collective feat enabled or constrained by each person's willingness or refusal to engage with disturbances to existing belief systems using the (more or less effective) communicative affordances of a space*. In the rest of this article, I outline the cultural logics of race underpinning these moments of dysconscious racism and listen to how differentially positioned bodies responded to disturbances, which offers opportunities for reflexive self-work (Diab, Ferrel, & Godbee, 2016, p. 25–26) when encountered from a stance of openness (Ratcliffe, 2005, p. 1).

## Cultural Logics of Race

Cultural logics of race are *shared ways of reasoning* that inform thought, belief, and action (Ratcliffe, 2005, p. 10). Krista Ratcliffe (2005) identified several cultural logics of race that inform common sense attitudes in the U.S., noting first that race is a "fictional category possessed of all-too-realistic consequences," rooted in mistaken beliefs about biology and the conflation of ethnicity (culture) with character and intelligence. The most detrimental cultural logic of race, white supremacy, rests on this fallacious belief in essential biological differences (p. 13). Cultural logics of race, then, always proceed from fallacious assumptions, though this does nothing to curb their prevalence.

Nonetheless, their prevalence makes them ripe for interruption and disturbance (and resistance to interruption and disturbance), since they "take their meaning from the symbolic systems in which they function" (Ratcliffe, 2005, p. 14) and these systems are constantly in flux. The cultural logics most pertinent to this article are white supremacy, colorblindness, multiculturalism (Ratcliffe, 2005), and zero-sum game (Norton & Sommers, 2011). While I sketch each one discretely, they circulate simultaneously and inform claims in complex, sometimes contradictory ways.

White supremacist logic "imagines *race* as biological differences, positing a hierarchical racial chain of being." Colorblind logic "draws on assumptions from equal-rights philosophy to demand that all people be treated equally in the present moment" but ignores "history or cultural factors that may privilege or constrain people in the present moment." Colorblind logic does not see "how *equal treatment* sometimes resonates as *not just*" or inequitable (Ratcliffe, 2005, p. 14–15). Meanwhile, multiculturalist logic counters white supremacist and colorblind logics to argue that race should be replaced by ethnicity or cultural heritage (e.g., Shoshoni, Irish, Afghan). Multiculturalism admirably "demands that all ethnicities be valued for their differences and commonalities, and concurrently, that each person be seen as an individual whose identity is informed by ethnicity but not reduced *solely* to ethnicity." However, it still elides or ignores systemic racism (Ratcliffe, 2005, p. 15). Finally, zero-sum game logic, often expressed as "reverse racism," perceives gains by Blacks as losses by Whites, or as then-senator Jeff Sessions put it, "'Empathy for one party is always prejudice against another'" (Norton & Sommers, 2011, p. 215). By this logic, less anti-Black racism results in more anti-White racism; increased equity and equality threaten white privilege and therefore white supremacy. These cultural logics intermingle and complicate one another as they circulate simultaneously, informing our ongoing everyday discursive exchanges and their material results.

## Emotions and Affects of White Fragility

While Ratcliffe's (2005) cultural logics help account for shared beliefs about race, they do not account for the intense emotions and affective dispositions that accompany talk about race. Robin DiAngelo's (2011) "white fragility" compellingly accounted for emotions (p. 54), which have narrativized content shaped by culture, as well as affects, which are pre-narrative bodily energies and intensities (Rice, 2008, p. 201). White fragility results from "the interruption of what is racially familiar" to whites (DiAngelo, 2011, p. 57)—a disturbance of the Same Old Racist Stuff that benefits both white people and White People. Disturbances to this status quo range widely, such as when a person of color holds a position of authority, when people of color share (or refuse to share) their racial experiences, when people of color play non-stereotypical lead roles in entertainment, or "multicultural education" itself. Barack Obama's presidency, the Black Lives Matter movement, a Black lead in *Star Wars: The Force Awakens*: all challenge white authority and centrality (DiAngelo, 2011, p. 57), resulting in a high, keening wail of white fragility. It manifests most often for whites as diffuse dysconscious racism, that uncritical habit of mind accepting of the white privilege and power that flow from the white supremacist status quo.

The race and public space FYW OWC, functioning as a multicultural education course, challenged all students to read, think, and write analytically about information by and about Black people, such as Brent Staples' article "Black Men and Public Space" (1986) and director Ava DuVernay's film *Selma* (2014),

both of which students analyzed prior to the disruption. Looking back, I am surprised that this semester-long challenge to white centrality and authority yielded only one pedagogical problem in class. Surely, many others occurred. While certainly a problem for me, the students of color, and many other white students in the virtual room, the two White students' resistance shows their engagement with what probably felt like an assault on their colorblind, zero-sum beliefs about race. Their resistance is understandable—not strange, as it seemed to me at the time, but all too ordinary and frustrating, because I have also been a white person struggling through White Person defensive reactions to race talk who had to overcome white fragility by building stamina.

One way to build stamina for race talk is to use rhetorical listening, which is listening from "a stance of openness" (Ratcliffe, 2005, p. 25). A tactic for rhetorical listening, listening pedagogically, involves "recognizing, analyzing, and resisting" student and teacher resistance (p. 136). Common types of resistance include denial, dismissal, defensiveness, overidentification, adherence to gender- and/or color-blindness, and speaking or writing block (p. 138–39). In the OWC, student resistance took the forms of overidentification, denial, and adherence to colorblind logic among the two White students and speaking block among at least one other white student. My resistance to the students' resistance insisted on recognizing systemic racism from an accountability logic in which "all people necessarily have a stake in each other's quality of life" (Ratcliffe, 2005, p. 31). But the two White students did not hear a call for accountability; rather, they overidentified with the police officer who killed Rice and heard themselves implicated in an unproductive guilt/blame logic. Next, I listen to this resistance for cultural logics of race as well as emotions and affects of white fragility, and consider how online writing instruction might more productively deal with disturbances.

## Listening to Student Resistance

Since writing is, among other things, an embodied performance of identities and ideologies (Scott, 2015, p. 50), it feels intensely personal, even when it's as ephemeral as speech. The White students' resistance began with ephemeral writing in response to a *Washington Post* opinion piece on the City of Cleveland's decision to "blame the 12-year-old […] for his own death," accusing him of "'failure…to exercise due care to avoid injury'" (Capehart, 2015). The article concludes bitterly: "it's Tamir's fault that he was not seen as a child" because "black children don't get to be children." Students were asked to read the article, go to the collaborative writing space Etherpad (whose ethereal name suggests how permanent this writing was to be), and identify a lens from a course reading that best explained the city's move.

Though students were practicing a challenging cognitive task, the best lens was obvious: white paranoia in Judith Butler's (1993) "Endangered/Endangering," which students read for the meeting. They easily matched descriptions of Rice as "'menacing'" and "'a 12-year-old in an adult body'" (Capehart, 2015) with Butler's description of how a California jury read Rodney King's body as a threat to the LAPD officers who beat him (p. 17). As students finished the task, I noticed one student who completed it and resisted it. Before I reconvened the class in Connect, this student brought her complaint into the chat area, akin to sharing it with the class with no prompting. Had this occurred in a f2f setting, other students would have contested it and a lively discussion probably would have ensued.

Instead, another white student who tended to retweet many of the first student's comments joined in, and ten minutes of angry, defensive denial ensued. While a few other students and I attempted to reason with them, they refused to listen and their claims grew more outlandish. Their claims relied on zero-sum and colorblind logics. The colorblind claim was advanced that anyone playing with a realistic toy gun in a park would be harmed by police and, implicitly, would have deserved it. In the moment, this claim seemed astonishingly disconnected from reality faced by Black people—and it was, as the students were White. Listening to this claim from a distance, it sounds like a defense of police officers who risk their lives daily: anyone playing with a gun in a park poses too great a threat even to police and, implicitly, deserves harm. This logic repeats the violence done to Rice by refusing to recognize him as part of "the public"—as a human with rights to be protected—instead dehumanizing him as a monster (Prasad, 2015, p. 50–52). Indeed, while no slogans were used, the incident could be distilled in zero-sum terms to Blue

Lives Matter vs. Black Lives Matter, a false dilemma grounded in a misreading of the latter phrase as "*only* Black Lives Matter" when it in fact avers, as did the course, that "Black Lives Matter, *too*."

Anger and defensiveness stemming from zero-sum logic likely motivated the White students' denial of racism. Other students, including both Black students, and I attempted to respond to their claims in registers of exasperation, pleas for reason, anger, and horror. The student who contributed most often to class discussion was uncharacteristically silent. During the discussion, this student sent me a direct message apologizing for her silence and stating that she was uncomfortable. Asked about the cause of this discomfort, she said she did not know how to respond to her peers. A helpful term for her affective response is "can't even," which implies an inability at the level of physical energy to respond. Silence and withdrawal from the situation are common manifestations of white fragility and reveal the need to build stamina (DiAngelo, 2011, p. 67) so that discomfort and disturbance can become productive sites for committing to racial justice (Diab, Ferrel, & Godbee, 2016, p. 25). But progress, like learning, is messy, uneven, and often motivated by failure: "like scrambling across rocky terrain" (Estrem, 2015, p. 93) in pursuit of the mountaintop.

## Beyond Listening: Making Actionable Commitments

Mapping the unstated cultural logics, emotions and affects, and communicative affordances of space for a moment of resistance to antiracist education can help us understand how and why it occurs. However, critique alone is not enough. Rather, we must make "actionable commitments" to racial justice out of critiques and confessional narratives like this one (Diab, Ferrel, & Godbee, 2016, p. 20). A "willingness to be disturbed" and a great deal of "self-work," such as "cultivating emotional intelligence" and building stamina, are required for actionable commitments to racial justice (p. 20). Racial injustice—mass incarceration alongside dysconscious racism, to name only two of its forms—is so thoroughly ingrained in the U.S., so stubbornly ordinary and frustrating that resisting it and promoting justice demand constant engagement, which is exhausting. Further, Whites enmeshed in zero-sum logic believe they are losing the game and have no cause to change their attitudes and beliefs about people of color. Yet this struggle for racial justice is vital. It occurs every day across spaces of higher education, from classroom to boardroom, virtually and face-to-face. Listening from a stance of openness to bodies marked and privileged in different ways is one step toward building stamina and acting on commitments to racial justice.

Making these commitments begins at home. In this case, it begins, or rather, continues, in the scholarly home of Computers and Writing, a field with a tradition of attending to asymmetrical power relations (Selfe & Selfe, 1994). Yet even in this space, the struggle is constant, setbacks are common, and results rarely immediate. To wit: the Q&A session of the panel.

While I listened to three energizing, thought-provoking presentations on Black Queer digital literacy narratives (Johnson, 2016), hip-hop feminists' digital counterstories (Duthely, 2016), and collaborative, multimodal Queer making in documentary film (Miles, 2016), I worried that two white people were about to enact the racist practice of making a diverse panel all about White People and Their Problems. Though I resolved to refuse this practice, white privilege and white fragility, manifestations of a white supremacist status quo, dominated the time for questions anyway.

After one question for another panelist, the audience member reiterated her claim that the student discussion was not racist and suggested that I struggled to understand racism (Poblete, 2016). I was so affected that I do not clearly recall all of the Q&A. Thanks to the tradition of live tweeting and the presence and labor of two top tweeters, Patti Poblete (@voleuseCK) and Vyshali Manivannan (@vymanivannan), many of the details, including the moment of peak white fragility, were recorded (Figure 1). Someone asked the audience member how she would have responded to the resistance I encountered. Poblete (2016) tweeted her response: "The person who interrupted Wilkes's talk thinks she would react to the student with, 'oh, sweetie,' & make a teaching moment." Casey Miles, a fellow panelist, tweeted "Is 'oh, sweetie' the sound of #whitefragility?" and responded verbally that "We, as teachers, have to model how to engage with difficult discussions about racis[m]. (And if white, don't rely

on [people of color].)" (Poblete, 2016). The conversation should have ended here, to be continued but not then, as it had already taken a third of the Q&A time.


Figure 2 Two tweets from a Storify of the panel by Poblete (2016).

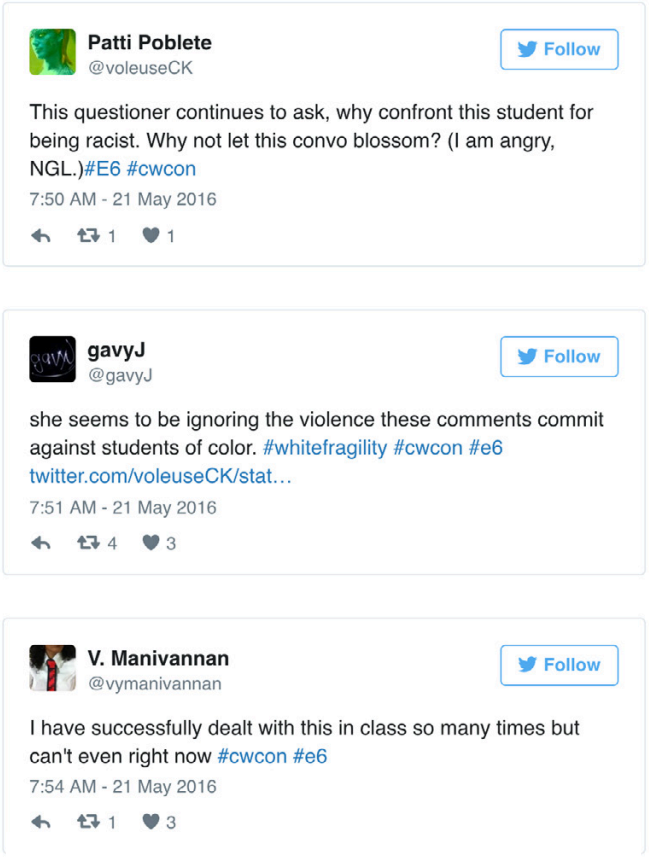


Figure 1: Some of the affective responses to sustained white fragility (Poblete, 2016).

But just as the two White students in the OWC refused to listen, the White audience member, seemingly unaware of her privilege, persisted in questioning (Figure 2). "This questioner continues to ask, why confront this student for being racist. Why not let this convo blossom? (I am angry, [not gonna lie].)," tweeted Poblete (2016). Gavin Johnson, whose presentation on Black Queer literacy narratives should have received more discussion, tweeted in response to Poblete, "she seems to be ignoring the violence these comments commit against students of color. #whitefragility." Meanwhile, Manivannan captured a sentiment likely shared by others in the room: "I have successfully dealt with this in class so many times but can't even right now." Manivannan expressed my affective state with "can't even," a phrase indicating an incapacity to engage because of an intense affective response. In this case, for me at least, the dull weight of colorblind logic proved too heavy, the interlocutor too unwilling to listen from a stance of openness. Like my presentation, the discussion trailed off more than it concluded, leaving many in the room angry, withdrawn, disgusted, disappointed, and so weary of the Same Old Racist Stuff.

All of this points to the need to counter white fragility by building stamina among white people for uncomfortable, disruptive talks about race, lest White People emerge. Like designing a decolonial interface, antiracist writing assessment, and decolonial writing instruction, building stamina is easier said than done. But a time when Black men, women, and children are murdered in public by agents of the state, then blamed for their deaths by whites who are disconnected from the reality of race in the U.S., building the capacity to change cultural logics, emotions, and affects requires stubborn persistence. Like traversing a rocky mountainside, this messy, uneven process entails slipping back as much as it does

scrambling forward. But the goal of racial justice shines brightly, lighting the path and urging us to embrace the struggle.

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# Digital Storytelling in the Age of Social Media: Reflections on Definitions, Curation, and Access

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Digital storytelling (through a variety of platforms) has become a large part of lived experience for much of contemporary society. A variety of websites and digital archives encourage people to tell their own stories in their own words or voices. In light of this, it is important to consider both the way that these true stories are often shaped and curated in terms of collections, featured stories and categories or otherwise molded by the platforms they are published in. It is equally important to consider the way that issues with access shape which stories get told. As the relatively new field of "Digital Curation" continues to emerge, with degree and certificate programs across the country, it becomes crucial to reconsider the question of access to storytelling tools (who has access to which tools to share their stories) as well as the ways that some stories are never told. In this paper, I will focus on some of the potential issues related to digital storytelling, curation and access.

Digital storytelling, particularly in the form of the telling or sharing individual life stories (true stories of everyday life), continues to evolve at a rapid pace. Innumerable websites and social media applications devoted to encouraging individuals to tell their own stories in their own words (and often voices) have developed over the last several years. As the definition of, and tools for, digital storytelling continue to shift and evolve, so too do the issues related to this idea. While the notion of allowing people to tell their stories is laudable, often the sites (web or app based) involved in cultivating these stories solicit or accept only certain types of stories or curate the stories in ways that are problematic. Additionally, issues with access to the technologies needed to create and submit stories to these sites is a lingering concern. As the field of digital curation continues to emerge, including archival curation for longevity in terms of library storage, there are serious implications for ensuring that a variety of stories are included in digital storytelling archives.

## The Evolving Nature (and Definition) of Digital Storytelling

According to most sources, the digital storytelling movement grew out of academic interest in collecting and preserving oral histories. The West Vancouver Memorial Library notes that: "collecting and preserving oral histories became an academic endeavor beginning in the 1970s. Its popularity in academia declined during the 1990s, but the discipline has been reinvented and revived through digital media" (WVML, 2011, n.p.). The notion of digital storytelling at the advent of the Internet age evoked a particular format, typically a combination of still images layered with an audio or textual component all compiled in a video format. In the mid to late 1990s this type of digital storytelling required access to computers, expensive video and audio programs and a certain level of expertise working with, manipulating, and editing in, software. As StoryCenter's historical page notes, the "emerging digital technologies of the 1990s offered new tools for expression and fertile ground for experimentation" (StoryCenter.org, n.p.). As a result, early efforts at digitally cataloguing individual human experiences were diverse in their methods (utilizing locally developed methods and diverse software and hardware configurations and devices) and early digital storytelling archives were often hosted solely by nonprofit organizations or universities who tended to have an interest in preserving individual or community related stories in a manner consistent with the traditional goals of preserving oral history.

Digital storytelling, or the evolution or movement of storytelling into the digital realm, "is a natural progression from oral storytelling; one might even say that storytelling plus technology equals digital storytelling" (WVML, 2011). And, while precise definitions of digital storytelling are somewhat elusive in computers and writing scholarship (outside of a basic acknowledgement that it entails connecting narratives with digital technologies), most scholars in the field discussing the form do so in terms of multimodality and the possibilities for individual expression outside of the written word alone.

Importantly however, as Annette Markham and Nancy Baym (2009) noted, digital technologies (including the Internet and social media) have changed the ways that most Americans do everything and therefore have widely impacted individual's lives and their everyday practices (pp. vii–xii). As such, in the early 2010s and beyond, as user friendly Internet based tools became more widely available and accessible (in terms of both production and cost) more people were able to use these tools to catalogue their everyday life stories.

Over the last few years the popularity of digital storytelling has increased dramatically, which can be seen in the rise in the number of websites devoted to cataloguing individual stories as well as the increased popularity of true story podcasts, websites, and applications. As digital storytelling as a form continues to evolve, numerous social media websites and smartphone applications have contributed significantly to a blurring of the definition of digital storytelling in general. Consider the use of YouTube, Snapchat, and Facebook for examples of the ways that individual people create and share individual stories about their everyday lives. As these genres continue to develop and evolve, questions as to what exactly equates to a digital story continue to emerge. For example, are Snapchat Stories digital stories? Can we consider the posts made on Facebook a form of narrating our everyday stories? What about the short burst submissions documenting daily dramas on fmylife.com? Do these few sentence narrative submissions about something awful happening to the individual on that day count as digital stories?

Humans are "storytelling animals" (Gottschall, 2013), and we live for and through stories. It is no surprise then that we are drawn both to hearing, reading, and sharing stories. And so, as the spread of tools and applications allow us to access, to upload, and share our own stories continue to proliferate, so too do the number of stories being told. What this means, however, is that pinning down an exact definition of what digital storytelling remains difficult. What is clear is that the earlier format is no longer a strict container for defining or determining what counts as a digital story. Digital stories are now told through captioned images, videos, audio recordings, and in digital texts on a variety of platforms on the Internet and social media applications. They vary in length, depth, and breadth from long narrations told in audio or video podcasts to those few sentence posts shared on message boards. For the purposes of this exploratory discussion on the subject, I choose to rely on a wide ranging definition of digital storytelling which is inclusive of these formats. I prefer not to close in on a definition that might exclude certain sites, forms or stories and hopefully the rest of my presentation will explain why.

## Digital Story Archives

There are currently a wide range of storytelling websites and social media applications available to individuals as noted in my earlier discussion. Quite frankly, there are simply too many different types of sites/apps to discuss in one short paper. Rather, to consider the implications of specific factors involving digital stories (including curation and access) I choose to focus here only on certain types of websites that are explicitly involved in gathering and publicly sharing digital stories to give a brief picture of the types and varieties of these sites. Unlike social media applications or websites that contain a variety of features, these are sites that are devoted solely to cultivating and archiving stories. I would like to explore their features by showcasing a few examples and considering the potentials and constraints of each type. In my initial research, I have determined that these sites can be divided up into three distinct categories, *tell us anything* sites, *content specific* sites, and *prompted content* sites. What follows is a brief discussion of each site type.

What I will call tell us anything (within reason) sites are those that offer individuals the option of sharing whatever stories that they choose to share. An example of this type of site would be StoryCorps.org (2015), one of the most well known public archives of digital stories, whose stated mission is "to provide people of all backgrounds and beliefs with the opportunity to record, share and preserve the stories of our lives" (n.p.). Sites like StoryCorps tend to have a mission that is intently focused on the notion that individual stories can be shared to build community and tolerance, to remind us of our common humanity. These sites are interested in the value of individual stories and in the

preservation of human experience. StoryCorps, for example, lists its purpose in gathering and publicizing stories as being

> to remind one another of our shared humanity, to strengthen and build the connections between people, to teach the value of listening, and to weave into the fabric of our culture the understanding that everyone's story matters. At the same time, we are creating an invaluable archive for future generations. (n.p.)

What I have chosen to call content specific sites only solicit digital stories related to particular topics or concepts. For example, the Digital Archive of Literacy Narratives (DALN) hosted by the Ohio State University library, solicits submissions of digital narratives specifically related to how individuals acquired literacies. The DALN is only interested in stories related to literate practices, however they invite "people of all ages, races, communities, backgrounds, and interests to contribute stories about how — and in what circumstances — they read, write, and compose meaning, and how they learned to do so (or helped others learn)" ("About", n.p.). Sites such as the DALN, which are focused on gathering digital stories related to a content specific goal, are fairly common. These sites include local and regional storytelling communities that seek to gather stories of local communities or the experiences of local inhabitants as well as stories related to specific experiences (such as a common experience with illness, loss of child/partner, etc.). The DALN of course is unique in that it welcomes stories about literacies from anyone who would like to submit them, however the stories solicited are still connected to one overall concept (literacy) and therefore content specific.

There are also a variety of sites that solicit stories per regularly changing topics or subjects. I choose to call these sites prompted sites because they tend to solicit stories based on changing topics or subjects. The British site www.Massobs.org.uk is an interesting example of this type of digital storytelling archive. The organization, Mass Observation (2015), is devoted to "recording everyday life in Britain" and to do so regularly assigns writing prompts to story contributors in the form of "Directives" which submitters respond to in writing and submit to the archive (Mass Observation Project, n.p.). For example, part of a recent directive entitled "Fraud and scams" provides the following prompt for storytellers:

> Cold calls, fake tickets, bogus emails and phishing…It seems that cheats are always inventing new ways to trick people into investing their own money or personal data in fraudulent schemes. In this Directive, we would like you to write about scams and include any personal experience you may have on this topic. (Autumn 2015 Directive, p. 1)

The organization, like other sites predicated on prompting storytellers, uses an approach of giving storytellers an idea to work with to facilitate storytelling on the subject matter at hand.

## Key Observations Regarding the Various Digital Storytelling Sites

There are, of course, many affordances and limitations to each type of digital storytelling site identified. However, in my initial research into the types of digital story archives discussed above, the following observations emerged that may highlight a few potential key considerations for future research in this area. These include how awareness of the sites, the types of submissions accepted, and the use of curation and cultivation affect which stories are gathered and shared. I touch only briefly here on the first two (as they are largely self-explanatory) before providing a more detailed discussion of curation and cultivation within sites.

### Awareness of Sites

Public awareness of a digital storytelling site's existence widely affects what submissions are received. For example, StoryCorps affiliation with National Public Radio, which regularly airs these stories via podcasts on the radio and features on their website, allows it to be widely known, increasing the likelihood that individuals who are interested in contributing their personal stories might become aware of the archive. In contrast to this, institutionally affiliated sites, such as the DALN, with primarily

academic audiences or word of mouth references, are less likely to garner widespread public awareness, which may limit the number of stories received as well as affect the variety of stories received as those contributed may come from primarily those affiliated with academia.

## Types of Submissions Accepted

The type of submissions accepted (including formats required for submission) ultimately affect what type of stories are gathered. For example, sites such as the DALN and the Mass Observation Archive accept a variety of types of submissions (including both written text and digital files) in a wide array of formats (videos, audio, postcards, etc.) that can be delivered through multiple means (online submissions, via postal service, etc.) therefore diversifying the overall types of submissions received. Sites like StoryCorps, however, may prescribe a particular format (in this case the preferred format is a conversational interview between two or more people that is audio recorded), which ultimately limits who contributes stories and shapes how the stories are told.

## Cultivation and Curation of Digital Stories

The cultivation and curation of digital story archives may affect not only which stories are read, but also how stories are approached by the reader. Many sites reviewed rely on some form of curation of the digital stories that they receive. This can come in the form of featured stories, collections or stories tagged according to categories of content. A look at StoryCorps (2015) revealed that the site features a prominently displayed feature story with two other smaller feature stories below, followed by an array of other staff pick stories underneath. Stories are curated into different collections and can be accessed by clicking on *Staff Picks*, *Browse Theme*s, etc. (n.p.). Even when you click on the Browse Themes tab you land on another page that offers some of the same options again along with other tabs that require you to dig further into curated story collections. It is difficult to get a sense of how many stories are available or even how they are tagged into these categories due to the way the site is structured, but clearly a great deal of curation takes place on the StoryCorps website and this curation alters which stories are brought to a viewer's attention. Additionally, like many websites that host digital stories, searchability within this archive is difficult and not user friendly.

Curation within the DALN is equally problematic. The main search page of the site lists several collections, such as *A Comprehensive Collection*, *Community Literacy*, *Editors' Picks*, *OSU FYWP AU2009*, and *Social Activists* (DALN, 2007, n.p.). While some of these categories seem clear cut, others are nearly unintelligible. What exactly is FYWP AU 2009 for example, and would someone outside of academia even attempt a guess? Additionally, some collections include only a handful of narratives. It leaves one to wonder how or why certain categories are selected and grouped into collections.

The Mass Observation Project's directives are archived within an archive known as *The Keep* which requires visiting an entirely different website that is difficult to navigate. Within my initial inquiries, it became quickly evident that this archive is also highly curated, with specific collections related to prior Mass Observation projects housed in one collection and ongoing collections categorized per topics as well. Generally, I found that although the site listed collection and category choices such as *Letters from the Archiv*e and *Authors*, viewing the materials within these collections was difficult. Where available, it appeared that the entries were highly contextualized by written introductions by staff members. There is also, the option of actually visiting The Keep in Britain itself.

Beyond the initial concerns noted above about how curation takes place within the sites themselves (in terms of special featured stories, collections or other curated categories) there are additional concerns to be noted in relation to the various sites and the curation of digital stories generally. In some ways, the lack of awareness of sites and the specified formats for story submissions discussed earlier can also be seen as a form of curation. Additional concerns with web and social media based digital storytelling platforms are that there are many sites that utilize a form of user curation, where visitors to the sites vote up or down different stories (often using thumbs up or thumbs down icons). Sometimes referred to as cocreation of content or as distributed curation, this method of curation results in individual stories being

rated on popularity with the audience that views or listens to them. Overall, the notion of curation within digital story sites remains complicated and unsatisfactory. There are a great many individual stories that are excluded from (or simply not valued within) the existing platforms due to a wide variety of factors, including issues with access to technologies and digital literacies required to create and upload stories.

## Divides–Access and Literacies

Despite the widespread availability of websites to share digital stories through, there continues to be concerns related to access that need to be mentioned. As noted, many spaces for sharing digital stories are still in the form of websites. Often the tools needed to produce and submit the stories for inclusion in the various archives are still very much computer based and require a certain (even if minimal) amount of proficiency with using a computer. Access to digital storytelling sites is also complicated by the continuing problem of lack of access to the Internet generally. While great strides have been made over the last five years, equitable Internet access is still a problem in the United States. Thus, access to high speed Internet connection options is not always available to people in poverty or those that reside in rural communities. Consider, for example, the following: 1) In May of 2015, American Online (AOL) reported that 2.1 million users in the United States continue to subscribe to dial up Internet with the company (Paglieri, 2015, n.p.). 2) At the other end of the spectrum there is a growing number of younger Americans who are considered "smartphone dependent", these individuals only have access to the Internet via data service on their smartphones (Smartphones, 2015, p. 3). According to a recent report from the Pew Charitable Trust on smartphones (2015), 7% of Americans only access the Internet through their smartphones and "15% of Americans own a smartphone but say that they have a limited number of ways to get online other than their cell phone" (p. 2). In additional, a 2013 Pew reported that 15% of Americans never go online and another 9% only go online in places other than their homes (Who's Not Online, p. 2). No matter the cause, these factors limit whose stories are included in digital story archives.

A lack of Internet or access to the Internet only via a smartphone severely limits the possibility of uploading and viewing stories on digital story archives. The upload and download speeds of dialup Internet do not support either uploading or viewing of large files. Most digital story archives have not yet evolved the capacity to accept digital stories created by applications. Interestingly, however, StoryCorps (2015), the one site that I found does, offers an app for recording and uploading stories to their digital storytelling archive, however that app is limited to certain types of smartphones. The disclosure on their website read that the "app is not currently available on Windows phones" (n.p.).

I would also like to note, as a small addition to the concept of access, that considering access in general continues to be complicated by the problem of stories that are considered *untellable* because they *bump up* against socially acceptable narratives–that is, certain stories tend to remain untellable in society generally because they voice alternative views that are unpopular or dwell on unapproachable topics that people are not interested in hearing or reading about. The individual life stories that are focused on these topics are typically excluded from inclusion in any type of mainstream dialogue, including the digital storytelling archive sites discussed above. While there are a few sites devoted to telling stories that do not fall within typical mainstream life story purviews, they often have a shtick (for shock value, for laughs, etc.) and even so, they still have fairly restricted guidelines for story submissions. (See, for example Risk-Show.com or the Moth podcast at theMoth.org, etc.) This leaves individuals with somewhat controversial life stories to tell at an impasse, be excluded, become a spectacle, or shock.

## On Digital Preservation and Curation of Previously Curated Stories

Beyond general considerations of whose stories matter and whose stories get told, there are ultimately real concerns related to the idea of digital curation because digital preservation has become an imperative of a great many institutions. Per the Library of Congress (2015), they are "implementing a national strategy to collect, preserve and make available significant digital content, especially information that is created in digital form only, for current and future generations" (n.p.) As institutions fret about archiving

and preserving aspects of contemporary culture that are created in digital format, digital curation has become a rapidly evolving field complete with certificate and degree programs popping up at universities across the country. The premise of digital curation as a field is a somewhat murky at the moment; however, the best explanation that I have found on the subject explains that:

> "Digital curation" concepts started to appear after digital preservation had already put a stake in the ground. "Curation" takes a "whole life" approach to digital materials to address the selection, maintenance, collection, and archiving of digital assets in addition to their preservation" (Lazorchak, 2011, n.p.).

Beyond mere preservation of digital materials, digital curation then can be seen as the selection of which digital materials are to be preserved for future generations, adding a certain amount of pressure to the consideration of digital storytelling, digital storytelling archives and issues of curation within and access to these sites.

In what may seem to be an interesting twist to this concern, consider for example the fact that some digital storytelling archives publicly available online are now working to ensure that the digital stories that they have collected will be preserved for the long run. Individual libraries and websites each have long term preservation plans for their digital data. The StoryCorps organization even collaborated with the Library of Congress to collect and archive stories that will be added to the Library of Congress in order to be preserved for future generations. Stories received via the StoryCorps app until March of 2016 will be "archived at the American Folklife Center at the Library of Congress. Interviews uploaded to the Library of Congress by March 2016 will be preserved indefinitely" (StoryCorps, 2015, n.p.).

## Implications for Further Study

While the concepts and considerations that I have discussed in this paper are preliminary, the repercussions for further inquiry are great. There can be no denying that there is an inherent risk that digital storytelling archives are (whether intentionally or not) privileging the life stories of certain people over others. Unfortunately, what is at risk is even greater – the long term preservation of certain stories while innumerable other stories are ultimately excluded. Hopefully, the initial research shared here points to the need to complicate the ways we think about digital storytelling, and archives, and to expand our research into this area. As I ground my work in technofeminist scholarship, I am reminded that Jen Almjeld & Kristine Blair (2012) noted that continuing to "foster broader definitions of research" in the digital age is critical (p. 100). It would be wise to rethink the role of digital storytelling archives (as well as what the definition of digital storytelling is across a variety of platforms) as valuable knowledge production, that, no matter the source, is always worthy of our scholarly attention. And, as we do this, as Annette Harris Powell (2007) made clear, it is critical to recognize "access as practice," which reminds us that how people actually use tools (including digital storytelling archives and the tools needed to contribute to them) matters (that is, what tools are used—and access to them—to share stories matters) as we research digital stories (p. 18).

Cynthia L. Selfe and Richard J. Selfe (1994) long ago provided a guiding reference for considering the ways that technologies ultimately contain the values of specific communities, which can also help us to consider how digital storytelling archives and the tools used to contribute to them ultimately shape the stories that get told. And, as Gail Hawisher, Cynthia Selfe, et. al (2004) showed us, the gateways to technologies are often found outside of traditional spaces and the cultural ecologies that promote technological literacies aren't often the ones we (as academics) are focusing on entirely, which reminds us to consider what stories are being shared on platforms that we may not even be thinking of. All of this leads me to wonder how we might approach research into digital storytelling differently if we were to embrace a wide variety of digital platforms (Facebook, Twitter, fmylife.com, etc.) as digital storytelling archives—as spaces where everyday people catalogue their everyday life experiences. And, to consider how we might expand research into digital storytelling that includes a recognition of those (both inside and outside of Western culture) who may utilize different platforms, who may be without Internet access, or those with moderated, constrained, surveilled, or otherwise controlled, access to widely accepted

forums. Ultimately, it leads me to recognize how important it is that we, as a community, continue to strive to ensure that a wide variety of life stories are shared and preserved.

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# From Slut Shaming to Cultural Commentary: What Live Tweeting Practices of Viewers of ABC's *The Bachelorette* Reveal about Gender Policing and Digital Activism on Twitter

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This article analyzes live tweets posted by viewers of ABC's The Bachelorette during a network-promoted scandal concerning the star's sexual activity on the reality TV program. This study notes how problematic gender norms were reinforced within the conversation unfolding on Twitter and how a subset of tweets served to critique the sexism found within the program, the Twitter feed, and in society more generally. As these tweets attempting to combat gender norms can be considered a form of digital activism, this study also analyzes the ways in which Twitter's particular communication format might complicate and/or interfere with their desired societal critiques.

On June 22, 2015, the Twitterverse erupted when the star of ABC's *The Bachelorette* had sex with one of her male suitors prior to the show's pre-approved, pre-scripted timeline. Far from being a PG-rated reality TV franchise, the long-running show is well known for broadcasting a slew of make out sessions and an entire episode devoted to speculating on whether the bachelor or bachelorette will sleep with any or all of his or her final three contestants in the fantasy suite. Yet when an episode aired revealing that Kaitlyn Bristowe, the season's bachelorette, and repeat contestant, Nick Viall, had slept together at the close of their one-on-one date, Kaitlyn faced a wave of criticism from viewers through social media. Over 80,000 tweets with the hashtag #TheBachelorette appeared in the 24 hours surrounding this episode, and a vast majority of them were negative posts consisting of judgmental quips and derogatory slurs focusing on Kaitlyn's sexual activity. These tweeters, the majority of whom were female, were quick to affix all the normal labels used to discuss so-called female promiscuity. Among the tamer tweets were chastising posts, such as "Kaitlyn needs to learn how to keep it classy & not so trashy" (@otrat_rowyso).

Amid the caustic remarks were also hundreds of tweets defending the star. For example, comedian Amy Schumer (@amyschumer) posted: "Oh no someone slept with a guy they're dating and considering marrying! Showing love for @kaitlynbristowe." Tweets that challenged slut shaming began to enter the feed, as did posts that specifically criticized ABC's producers for the ways in which the show participated in and encouraged such shaming. While some important conversations resulted from this sensationalized reality television episode (Gray, 2015; Uffalussy, 2015; Yahr, 2015), the initial social media response it provoked reveals how expectations for single women on the dating market today are entrenched in problematic sexual double standards that have remained unaltered for decades. Consider, for example, this tweet posted during the episode: "you can turn a housewife into a hoe. But you can't turn a hoe into a housewife" (@HeatherGossman). As the negative twitter posts prove, many still believe that certain behaviors determine whether a woman is good girlfriend or wife material, and at the top of the list remains her sexual history. This study notes the pervasiveness of these problematic gender norms within the collected tweets and analyzes a subset of posts that serve to critique these norms and provide broader cultural commentary. It could be argued that these latter tweets combatting gender norms are a form of digital activism. As such, this study analyzes the ways in which Twitter's particular communication format might complicate or interfere with their societal critiques.

Twitter data was collected weekly from May 18, 2015 through July 27, 2015, spanning the entire eleven week season. Live tweets (posted between 8:00 p.m. EST and 10:00 p.m. EST) associated with the hashtag #TheBachelorette were scraped weekly using NodeXL. Focus was then narrowed to a three-week period that involved the public slut shaming of the bachelorette contestant (tweets pertaining to the episodes that aired on July 15, July 22, and July 29). During the July 15 episode, contestant Ian Thomson criticized Kaitlin for making out with too many male contestants, prompting the first discussion of slut shaming for the season; during the July 22 episode, as discussed earlier, Kaitlin was recorded having sex with one contestant; and the July 29 episode focused on Kaitlin confessing to her remaining suitors that

she had had this early sexual encounter. The publicity for these episodes continually stressed Kaitlyn's sexual behavior (or anticipated people's reactions to it). The resulting data pool from these three episodes consisted of 56,764 total tweets.

The dataset was then coded to highlight critiquing tweets. These tweets would fall under what Yvette Wohn and Eun-Kyung Na (2011) called *opinion posts* in their analytical model for mapping the type and flow of content found in social media threads. In studying the live tweeting practices of television viewers watching two non-scripted television programs, Wohn and Na determined four main purposes for viewers' posts: to give opinions (59%), to provide information, to express emotion, or to gain attention. Another study, conducted by Fabio Giglietto and Donatella Selva (2014), determined that opinion-based tweets are the most prevalent. When analyzing viewer tweets about *The Bachelorette*, critiquing tweets were further organized into two categories: (1) small-scale critiques directed at the contestants (including subcategories such as personal opinions, name calling, and jokes) and (2) large-scale cultural critiques directed at the producers or other Twitter users (including subcategories focused on media criticism—e.g. posts about editing or marketing choices—and cultural commentary).

Although there has been debate about whether Twitter is an accurate indicator of cultural values, this dataset does document prevalent sexism. The most common sexist tweets involved slut shaming (see Table 1), reinforcing double standards concerning sexual behavior, and accepting (or at least not criticizing) vulgar or violent language directed at women. Studies continue to find evidence of a cultural double standard pertaining acceptance towards male versus female sexual activity (Kreager & Staff, 2009; Vrangalova, 2014).

| Twitter User | Timestamp | Tweet |
|---|---|---|
| niiecy_babii | 6/22/2015, 9:09 p.m. | I feel so bad for the original men in the house. Kaitlyn really is doing them dirty, she has no respect . #TheBachelorette |
| Scarlettmerk | 6/22/2015, 9:12 p.m. | You're having sex on national television #classy #TheBachelorette |
| HollyDurst | 6/22/2015, 9:12 p.m. | I bet her parents like this episode. #TheBachelorette |
| CocoNutsNYC | 6/22/2015, 9:16 p.m. | They deserve each other. She's as deep as bucket of water in the desert and he's just gross. NOT A GENTLEMAN! NOT A LADY! #TheBachelorette |
| AbsolutelyAnna | 6/22/2015, 9:16 p.m. | COMMENCE WALK OF SHAME. #thebachelorette |
| RoxieKat | 6/22/2015, 9:20 p.m. | Fix it...? How about keeping your v-jayjay in your pants? |
| Melanie_G123 | 6/22/2015, 9:22 p.m. | "I wouldn't want my son dating her"-mom #TheBachelorette @PrincessProbz |

Table 1: Posts slut shaming contestant(s).

The pure quantity of tweets produced reinforces research that indicates that commenting on a woman's sexual behavior is a common, if not acceptable, cultural practice. (The July 22 episode nearly doubled the average weekly tweet total for this hashtag.) The controversial scene between Kaitlyn and Nick aired over eight minutes, between 9:08 p.m.–9:16 p.m. This scene began with a series of make-out sessions (juxtaposed between clips of the other men expressing their feelings for her). Next came six minutes of footage recording their sexual encounter. While the actual interaction occurred behind closed doors, it was captured on audio, and the producers decided to air it with subtitles added. (And to edit in shots of birds and bees and erupting water fountains as a form of crass symbolism.) The scene ended with Nick leaving her hotel room in the morning, providing further clarity of what had occurred. Throughout this eight-minute scene, 7,312 total tweets (original tweets plus replies and retweets) were posted under #TheBachelorette hashtag (at a rate of 914 tweets per minute).

Unsurprisingly, the authors of these posts were predominantly female (assuming that the profile pictures and names used are an accurate representation of users' gender). This aligns with previous research concerning how women are as likely, if not more, as men to critique another woman's sexual activity on Twitter (Gibson, 2014). A recent study has found that even women who identify as sexually permissive are likely to criticize another woman's sexual activity (Vrangalova, Bukberg, & Rieger, 2013).

The fact that more women than men participated in this slut shaming is also likely due to the fact that viewership of the program is largely comprised of women. Beyond the general criticism directed at Kaitlyn, the casual use of derogatory terms is also noteworthy (Table 2). A secondary dataset obtained by using keyword searches on Topsy, an online social media search engine, determined that in the days surrounding the July 22 episode, 293 tweets under the hashtag #TheBachelorette included the word *slut* (although this number is slightly misleading since a portion of these included critiques of slut shaming); 151 tweets included the adjective *dirty*; 112 tweets included the word *classy* (used in a sarcastic fashion); 102 included the term *hoe*; 85 included the slur *whore*; 43 tweets included the insult *trashy*; 38 included the term *skank*; 32 included the term *tramp*; and 25 included the term *tacky*. Context, of course, cannot always be gleaned from simple word count analyses, and what the data suggests is that these numbers actually underrepresent the amount of times vulgar terms were directed at the star, since oftentimes such insults are purposely misspelled to add emphasis or humor. Take for example the poster (@courtyvonne), who integrated hoe into the spelling of Bristowe's name (Table 2).

| Twitter User | Timestamp | Tweet |
|---|---|---|
| afterfivenow | 6/22/2015, 9:10 p.m. | Ho dee Ho Ho Ho #TheBachelorette |
| kellieewalton | 6/22/2015 9:10 p.m. | My mom said "she's a scuz-bucket" #nuffsaid #TheBachelorette |
| sabymarie7 | 6/22/2015, 9:10 p.m. | TRAMP #TheBachelorette |
| californiaashes | 6/22/2015, 9:12 p.m. | All aboard the slut train. ALL ABOARD!!!! #TheBachelorette |
| aiken4jr | 6/22/2015, 9:12 p.m. | Uh oh this is turning into 50 shades of slutty!!!#TheBachelorette |
| liv_cappucci | 6/22/2015, 9:12 p.m. | kaitlin is a whoreeeee #TheBachelorette |
| courtyvonne | 6/22/2015, 9:16 p.m. | So, Kaitlyn BristHOE? #TheBachelorette |
| miranda0678 | 6/22/2015, 9:17 p.m. | If you didn't want it to be an issue, you should have kept your legs closed! Bloody whore! #TheBachelorette |
| marlin_hargrove | 6/22/2015, 9:23pm | #TheBachelorette. Kaitlyn is trashy. |

Table 2: Derogatory name-calling tweets.

While ample research has suggested that Twitter may be used to track cultural sentiment (Diakopoulos & Shamma, 2010), the type of writing Twitter promotes contributes to its performative nature (Stefanone, Lackaff, & Rosen, 2010; Booth, 2012; Qui, Lin, Ramsay, & Yang, 2012) and, therefore, problematizes the notion that tweets can act as a societal mirror reflecting cultural values. For example, humorous and inflammatory posts tend to receive more attention in the form of retweeting and replying practices (Holton & Lewis, 2011, p. 6). On the one hand, the performative nature of Twitter could result in social media users who perform in ways that do not necessarily reflect their own beliefs in order to obtain visibility and popularity. On the other, the data analyzed collectively does reveal some striking things about cultural practices, and, by extension, the cultural beliefs they stem from. The prevalence of negative tweets also align with larger trends in Internet communication, for example the common practice of flaming or trolling, especially in settings that allow for anonymity (van der Nagel & Frith, 2015). Since negative commentary online is often explicitly or implicitly focused on identity factors, such as gender or race (Tillman, 2014), the abundance of gender-based slurs found in this dataset is not surprising.

Aligning with the research, negative or comedic tweets from this dataset were more likely to be retweeted. And while the content of these tweets may not necessarily perfectly reflect societal beliefs, they do at least reveal common practices for live tweeting televised content. The comedic tweets indicated an expectation for synchronous communication—posts intended for an imagined audience of fellow viewers watching the program during the live broadcast. The idea that Twitter provides users with an imagined community is well documented in scholarship (Chen, 2011; Gruzd, Wellman, & Takhteyev, 2011; Huimin and Ruoh-Nan, 2011; Harrington, Highfield, & Bruns, 2012). Unsurprisingly, the sexual encounter prompted a slew of jokes referencing the sounds and actions editors allowed viewers access to during the eight minute scene (Table 3). The specificity of these tweets highlights the ephemeral nature of

tweets, in general, but also how their humor often depends on when the tweet is received. Consider, for example, this joke that referenced a commercial campaign running concurrently with the season: “I think we ALL know what never-before-seen #BleachableMoment we want Clorox to unlock tonight” (@KristenGBaldwin).

| Twitter User | Timestamp | Tweet |
|---|---|---|
| Jenniferweiner | 6/22/2015, 9:03 p.m. | "The chemistry's there. The emotions are there. Everything I'm looking for is there." Hoping the birth control is there… |
| Eonline | 6/22/2015, 9:11 p.m. | Something tells us they aren't just playing Scrabble in there... #TheBachelorette |
| chamie713 | 6/22/2015, 9:12 p.m. | Can you imagine the looks the camera guys are giving each other during this scene #TheBachelorette |
| Jasonpinter | 6/22/2015, 9:12 p.m. | I think I'd rather fill my ears with pregnant scorpions than listen to more of Nick's bedroom talk. #TheBachelorette |
| jenniferweiner | 6/22/2015, 9:12 p.m. | Sighs. Coos. Kisses. Soprano groans. Either they're having sex or eating a really delicious sundae. Mmm. Sundae. #thebachelorette |
| LaurenDenhamXo | 6/22/2015, 9:13 p.m. | And suddenly, watching #TheBachelorette with my mom seems like a not so good idea |
| Jamienotis | 6/22/2015, 9:18 p.m. | Watching #TheBachelorette is like listening to the audio book of a harlequin romance novel. #Bachelornation |
| butterflyblob | 6/22/2015, 9:18 p.m. | "Off-camera time" is my new favorite euphemism for sex. #TheBachelorette |
| AnonBachelorFan | 6/22/2015, 9:22 p.m. | Which producer drew the short stick and had to film the door while they did it? #TheBachelorette |

Table 3: Joking tweets.

Another example would be the increased number STD jokes posted during a bizarre group date that followed Kaitlyn and Nick’s sex scene. This date—held at a funeral parlor—found Kaitlyn posing as a corpse in a coffin while her suitors recited eulogies. Quite often these comedic tweets only make sense to someone watching the show live (Table 4).

| Twitter User | Timestamp | Tweet |
|---|---|---|
| bachelorburnbk | 6/22/2015, 9:02 p.m. | Oh, dear. This is going to bad places. Don't do it, Kaitlyn! You will get chlamydia. And die. #TheBachelorette |
| Bachbros | 6/22/2015, 9:11 p.m. | Nick's coming back with something alright, and it rhymes with with "schmerpes". #TheBachelorette |
| KristenGBaldwin | 6/22/2015, 9:25 p.m. | "Kaitlyn is dead. Nick gave her a toxic case of the clap." #TheBachelorette |
| FakeHarrison | 6/22/2015, 9:28 p.m. | I figured @viallnicholas28 had megaherpes, I just didn't think it would kill @kaitlynbristowe this fast. #TheBachelorette |

Table 4: STD-themed jokes in tweets.

Some program-specific complications arose when trying to determine whether larger cultural sentiments could be gleamed from this dataset. Some of the critical posts directed at Kaitlyn’s sexual activity were influenced by viewers’ pre-existing feelings for Nick—a contest on the previous season. For example, one viewer tweeted: “Not shaming her for what she is doing… My issue is who she is doing it with. Huge difference” (@ellabella1792). Such critiques are further complicated by the reason why many viewers disliked Nick. Ironically, he, himself, had engaged in a form of televised slut-shaming. During an “After the Final Rose” episode, he criticized Andi Dorkman, the previous bachelorette, for sleeping with him if she had not intended to marry him. So, oddly enough, Kaitlyn was shamed more for *her* sexual acts

because she was with a partner who had previously (inadvertently or not) shamed another woman for hers. This aligns with the long history of women being judged based on the behavior of their male romantic partners. Consider for example the ways in which Bill Clinton's infidelity was used to criticize Hillary Clinton during the 2016 Presidential campaign (Ames, 2016). Viewers' history with the program influenced other critiques as well. For example, many saw the interaction between Kaitlyn and Nick as deviating from the normal program arc, and her sexual activity was interpreted as violating the so-called rules of the show (e.g. the expectation that the star will wait until the fantasy suite to have sex).

While the majority of the critiquing posts focused on the specific behavior of the contestants rather than on societal critique, there was a subset that countered the normative messages found in the larger thread. Studies have found that Twitter, like most online platforms, reinforce cultural norms concerning identity construction (Risam, 2015). Many viewers used Twitter to combat the sexist commentary present within the program or the fan tweets. Some users pointed out the misogyny of fellow viewers, some called for more positive discussions of sex, and some simply celebrated Kaitlyn's choice without qualification (Table 5). This type of feminist digital activism appears to be one of the more common within program-specific Twitter threads. A recent example would be the ways in which female fans of *Doctor Who* pointed out the sexism within complaints by male fans after the announcement of the first female Doctor was announced (Gettell, 2017). The practice of specifically labeling sexism and misogyny present within the feed aligns with one of the more common feminist activist practices online: educating about feminism and feminist issues (Keller, 2016, p. 266).

| Twitter User | Timestamp | Tweet |
|---|---|---|
| Jenniferweiner | 6/22/2015, 8:23 p.m. | Kaitlyn will not apologizing for kissing guys. Because intimacy is important. Also, she's thirty years old and not Amish. #thebachelorette |
| UnSlutProject | 6/22/2015, 9:07 p.m. | Everyone "slut"-shaming #TheBachelorette needs to knock it the hell off. @kaitlynbristowe we've got your back! #unslut |
| AshleySpivey | 6/22/2015, 9:08 p.m. | All these girls on Twitter acting like they haven't hooked up with a dude on the first date. Come on. #TheBachelorette |
| KarisaHolden | 6/22/2015, 9:09 p.m. | OMG! A woman in 2015 wants to have sex with a guy she's attracted to! It's like Sodom & Gomorrah up in there. #TheBachelorette |
| Shilohbarkley | 6/22/2015, 9:10 p.m. | Get your orgasm on, girlfriend! #TheBachelorette |
| EmilyLFoley | 6/22/2015, 9:11 p.m. | The only things Kaitlyn should be embarrassed about it not turning off her mic pack. #TheBachelorette |
| BluntAssJenny | 6/22/2015, 9:16 p.m. | Here comes sexism/misgynoticism in 3…2…1… #TheBachelorette |
| Jcapejcape | 6/22/2015, 9:17 p.m. | GIRL CAN HAVE SEX IF SHE WANTS EVERYONE props to @kaitlynbristowe for bein real about her desires everyone else shhhh #TheBachelorette |
| CelebrityFind | 6/22/2015, 9:17 p.m. | Hey! Don't say that! #Nymphomaniacs have rights, too! #DontJudge #Each2HisOwn #havingfun #TheBachelorette #NiceGirl ;D |
| guyisonahorse | 6/22/2015, 9:17 p.m. | So much embarrassing slut shaming happening on #TheBachelorette tags. Yall are at best, hypocrites. At worst, poopy faced scum bags. |
| bachrants | 6/22/2015, 9:17 p.m. | And so begins the "Slutshaming Special" episode of #TheBachelorette |
| HegartyKatie | 6/22/2015, 9:18 p.m. | Kaitlyn says she doesn't feel guilt for "the act." Very glad to hear that because the show will FIGHT to take that from her #TheBachelorette |
| AshleySpivey | 6/22/2015, 9:23 p.m. | I think we all need to have a big discussion about how sex can actually make you feel powerful, ladies. #TheBachelorette |

Table 5: Anti-sex shaming and contestant support tweets.

Still others used Twitter to criticize the network, arguing that ABC had finally crossed a line with their treatment of Kaitlyn (Table 6).

| Twitter User | Timestamp | Tweet |
|---|---|---|
| Eonline | 6/22/2015, 9:10 p.m. | The heavy breathing? The sound effects? STOP. THIS. #TheBachelorette |
| TayMartin13 | 6/22/2015, 9:11 p.m. | You've went too far, ABC. Too far. #TheBachelorette |
| Possessionista | 6/22/2015, 9:11 p.m. | Hey ABC we all know what's happening. We could do without the sound effects. #TheBachelorette |
| NMariRogers | 6/22/2015, 9:11 p.m. | Ew. Slurping and subtitles?! Too much. It's too much. #TheBachelorette |
| Possessionista | 6/22/2015, 9:12 p.m. | Oh sure, the bleep out the word "erection," but Kaitlyn moaning is a-ok? #TheBachelorette |
| GitrDUNNashton | 6/22/2015, 9:13 p.m. | I'm really disappointed in the way @ABCNetwork @BacheloretteABC is showing this. Very poor taste. #TheBachelorette |
| Colindonnell | 6/22/2015, 9:13 p.m. | Gotta hand it to #TheBachelorette editors. The fountain at the end of that whole thing was genius |
| Leonicka | 6/22/2015, 9:16 p.m. | LOL at the birds and bees footage. I SEE WHAT YOU DID THERE @BacheloretteABC #TheBachelorette |

Table 6: Criticism directed at producers.

Expanding the Twitter collection beyond the live tweeting window reveals that tweets of this nature were more likely to occur outside the live broadcast window. Those criticizing the practice of slut shaming under this hashtag were often joining the conversation after the fact, indicating that this sort of digital activism—although engaging with viewers of *The Bachelorette*—may not be coming from those who watch the show live (if at all). Interestingly, unlike the comedic tweets, these often seem crafted for asynchronous communication (Table 7).

| Twitter User | Timestamp | Tweet |
|---|---|---|
| brosandprose | 6/22/2015, 1:37 p.m. | fuck it, I'm spending this weekend writing about #TheBachelorette, social media harassment and slut-shaming. A Bachelorella manifesto. |
| BachBlackBox | 6/22/2015, 2:12 p.m. | Let's all make a promise that tonight we will not slut-shame @kaitlynbristowe Support women's decisions, dont be degrading #TheBachelorette |
| jennyrocks | 6/22/2015, 5:31 p.m. | also, we've got what will surely be the most slut-shamingest #thebachelorette of the season tonight, so yay feminism |
| Fortitude1913 | 6/22/2015, 6:36 p.m. | Watching #TheBachelorette tonight just to see if @ABCNetwork will remain true to form & let Caitlyn get slut-shamed on national TV... |
| Cckessler | 6/23/2015, 8:05 a.m. | All these people slut-shaming Kaitlyn and yet very little about Nick who has now slept two Bachelorettes on national TV. #TheBachelorette |
| LindsWilliams_ | 6/23/2015, 8:43 p.m. | Catching up on last nights episode of #theBachelorette &BOY OH BOY. I'd never slut-shame you, @kaitlynbristowe -but who edited it did girl. |
| CalgarySarah | 6/24/2015, 5:51 p.m. | To #TheBachelorette viewers: Slut-shaming is never okay. Never slut-shame yourself or others. |
| YahooStyle | 6/25/2015, 5:19 p.m. | Feminism in retrograde: Why we NEED to stop slut-shaming #theBachelorette @kaitlynbristowe. http://yhoo.it/1HjHhWQ |
| LaDiavolina | 6/25/2015, 11:42 p.m. | It makes me irrationally angry that the majority of those slut-shaming Kaitlyn Bristowe are women. Judgmental prudes. |

| | | |
|---|---|---|
| | | #TheBachelorette |
| bachelorbenhair | 6/30/2015, 8:54 p.m. | UGH, Kaitlyn take your power back. You're #TheBachelorette and you apologize for nothing! |

Table 7: Anti-slut shaming tweets from July 22 to July 29 (during and in-between episodes).

However, there were a number of live tweets that engaged in cultural commentary while the episode aired. Unfortunately, they suggest some challenges of using Twitter to provide such critiques—or at least such critiques inspired by a longstanding reality television program. Although some have argued that Twitter's minimalism can be viewed as an affordance (Brock, 2012, p. 535), arguably, persuasive social commentary is difficult to achieve in 140 (now 280) characters. As previous studies have found, the length restrictions, coupled with the text-based messaging, often led to ambiguous posts (Purohit et al., 2016). For example, consider the first four posts in Table 8. The first tweet, "I guess self-slut-shaming is possible" (@VaughnFry), could be interpreted as criticizing slut-shaming or as saying that finally a contestant has crossed a line and is warranted in being the target of such shaming. The words within the second tweet, "this girl is dirty" (@_MissNessaJ), seems like a criticism, but then the post includes two contradictory emoticons which could be viewed as criticizing or celebrating her actions. The third tweet, "let the slut shaming commence" (@devonrgoss), could be read as predicting, criticizing, or encouraging the series of slut-shaming tweets that would follow. And the fourth tweet, "I'm embarrassed for this girl" (@msemilymosley), could viewed as empathetic or judgmental.

| Twitter User | Timestamp | Tweet |
|---|---|---|
| VaughnFry | 6/22/2015, 9:09 p.m. | TheBachelorette So I guess self-slut-shaming is possible. |
| _MissNessaJ | 6/22/2015, 9:10 p.m. | this girl is dirty #TheBachelorette |
| devonrgoss | 6/22/2015, 9:10 p.m. | #Let the slut shaming commence #TheBachelorette |
| msemilymosley | 6/22/2015, 9:12 p.m. | I'm embarrassed for this girl! #TheBachelorette |
| youngmathgeniu | 6/22/2015, 9:13 p.m. | I won't condemn Kaitlyn for what she did even though it's inappropriate, but why Nick? #TheBachelorette |
| AbbeWright | 6/22/2015, 9:14 p.m. | I would DIE if my moans were on national TV. #ReasonsWhyICouldntBeTheBachelorette But go on and get it girl! #TheBachelorette |
| ellabella1792 | 6/22/2015, 9:14 p.m. | Not shaming her for what she is doing.... My issue is who she is doing it with. Huge difference #TheBachelorette |
| click4Amanda | 6/22/2015, 9:14 p.m. | #TheBachelorette Kaitlyn's not gross for boning a guy; she's gross for boning a guy 3 feet from an entire production crew |
| charleen383 | 6/22/2015, 9:15 p.m. | Dumbbell! Everyone gets one dumbbell moment, don't they? #TheBachelorette |
| bluntassjenny | 6/22/2015, 9:16 p.m. | Should have just held out until the fantasy suites where it's perfectly acceptable to bone on national TV #TheBachelorette |

Table 8: Mixed messages and ambiguous posts.

Ultimately this study suggests that live tweeting reality television programs—or at least this particular reality television program—may not be an effective form of digital activism. Overall the social activist posts were greatly outnumbered by misogynistic posts, decreasing their visibility within the feed. The posts containing social commentary were also less likely to be retweeted than those that provided gendered insults, slurs, or jokes. Further, even the tweets critiquing the sexist, heteronormative, and patriarchal tropes of the show were influenced by viewers' expectations for the television genre, the program's particular structure, and the communication platform with which they were engaging.

Successful feminist digital activism engages like-minded individuals online, voicing concerns and sharing information with the intent to raise awareness within the general public about feminist issues (Carstensen, 2012, p. 223). Hashtag feminists—those employing hashtags to draw attention to specific feminist issues—have successfully intervened in "oppressive discourse produced by commercial, news, and entertainment media" (Clark, 2016, p. 2). The live tweeted critiques of *The Bachelorette* can be

viewed as attempts at hashtag feminism, but they falter largely because the tweets were made under the wide reaching #TheBachelorette hashtag. Very few posts included targeted feminist hashtags that could link their critiques to that of others, allow for a visible counter message related to the show, or enter into broader conversations about feminist issues beyond the context of the program. If done effectively, appending a social justice orientated hashtag to that of a major broadcast can allow users to co-opt the conversation concerning television programming. Consider, for example, the Representation Project's launch of the #NotBuyingIt hashtag and iPhone app six days before the 2014 Super Bowl. The campaign encouraged users to combat gender misrepresentation, prompting over fifteen thousand tweets—reaching more than 2.4 million people—during the nationally televised game (Clark, 2014, p. 2). Hashtag activism works best when individual posts—often those involving personal stories (Cochrane, 2014)—coalesce into a unified protest and this did not occur within this particular data set. This study suggests that live tweeting television shows as a form of cultural commentary will only be effective if the individual tweets pointing out social injustice reach a high level of visibility and interconnectivity.

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# From Selfies to Celebrities: #FeministsAreUgly as Cultural Critique or Cultural Confusion?

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This essay investigates a recent hashtag movement where Twitter users construct, negotiate, and contest definitions and iterations of feminism. #FeministsAreUgly is a trend supposedly challenging contemporary beauty norms for women that was largely taken up with selfies and celebrity photos, perhaps unintentionally undermining the idea that looks do not matter in feminism. By performing a qualitative analysis of a sample of over 2,000 #FeministsAreUgly tweets from April 2015, when the movement resurfaced due to a Twitter algorithm error, I qualify what feminism looks like as mediated through this hashtag. I identify which rhetorical strategies comprised the movement and how these strategies can be both problematic and productive in furthering feminist goals. Ultimately, I argue that while feminist action in social media continues to be inconsistent and challenging, targeted opportunities exist for fruitful digital writing for furthering feminist goals.

Feminists in computers and writing have long debated what constitutes—and who gets to constitute—what feminism looks like, especially as it emerges in digital writing (Blair & Takayoshi, 1999; Blair, Gajjala, & Tulley, 2009). This essay takes up a recent hashtag movement where feminist communities construct, negotiate, and contest definitions and iterations of feminism using hashtag activism as their method of writing and debating. #FeministsAreUgly is a trend supposedly challenging contemporary beauty norms for women that were largely taken up with selfies and celebrity photos contesting the notion that feminists are ugly or critiquing the idea that beauty matters. By conducting a qualitative analysis of a sample of over 2,000 #FeministsAreUgly tweets from April 2015, when the movement resurfaced from 2014 due to a Twitter algorithm error, we ask: What does feminism look like, especially as mediated through hashtags? Who gets to decide? Which tactics are the most and least productive? Using a grounded theory approach, we identify and quantify the key traits of the sample. Our analysis identifies the viewpoint illustrated in the tweet (feminist, anti-feminist, neutral), the visual rhetoric included in the tweet (selfie, celebrity photo, memes, other, none), and more. Ultimately, we argue that while feminist action in social media continues to be problematic, targeted opportunities exist for productive digital writing for feminist intervention and community building.

## The Exigence

In August 2014, as a response to the backlash to #YesAllWomen and #WhyWeNeedFeminism, Lily Boulourian tweeted a picture of herself accompanied with the hashtag #FeministsAreUgly (Fig. 1). Boulourian and her friend Christine Young explained in an interview that the hashtag was a way to contradict "absolutely silly and completely unattainable standards under which every single woman is [considered] ugly, especially if you're a woman of color" (Dickson, 2014, n.p.). Once the hashtag started trending in summer 2014, however, Boulourian and Young's original message began to get lost. While there were thousands of tweets utilizing the hashtag as intended, and users tweeted selfies of themselves and celebrities in a show of solidarity and feminist affirmation, there were other users who misunderstood the satire in the hashtag and responded on the defensive. Yet other users took the opportunity to insult feminists. Still others claimed the hashtag reinforced sexism and contributed to a circular kind of backlash.

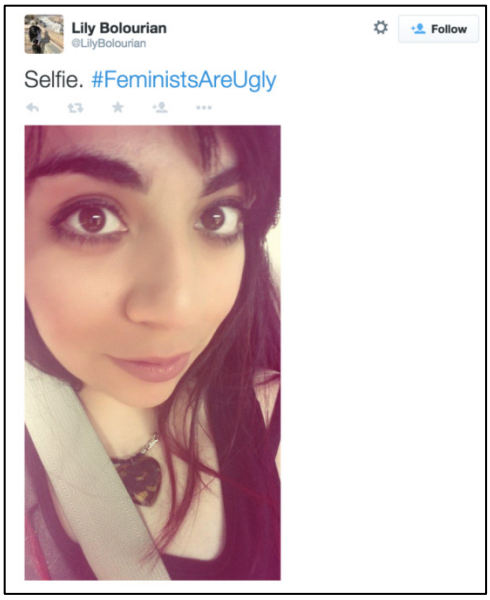



Figure 1: Originating #FeministsAreUgly Tweet from Boulourian

Like many Twitter movements, the volume of and attention to #FeministsAreUgly died down until April 2015 when, in an attempt to highlight its new homepage as a fast-paced news service that pulls headlines, hashtags, and images, the Twitter interface incorrectly pulled a headline from an *Inquistr* article published in August 2014 (Martin, 2015). The headline read, "Ugly Feminists Freak Out Over #FeministsAreUgly Hashtag" (Fig. 2). How the algorithm made the mistake is unclear (Martin, 2015), but it nonetheless spurred a resurgence that reached over 180,000 tweets with similar trends to the original movement (Fig. 3). In the next section, we will articulate how we approached analyzing a sample of #FeministsAreUgly, before detailing the results.


Figure 2: Twitter Headline in April 2015 Incorrectly Claiming #FeministsAreUgly Was Trending

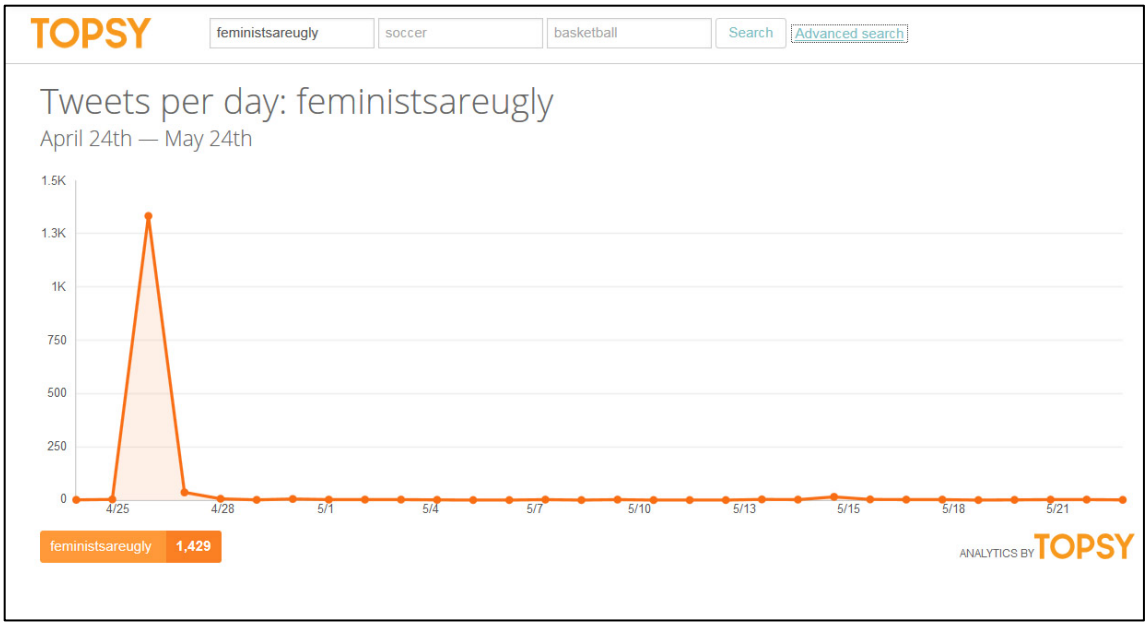



Figure 3: Topsy Chart Showing #FeministsAreUgly Tweet Volume in April-May 2015

## The Framework

We examine the #FeministsAreUgly April 2015 resurgence within the framework of hashtag feminism. Hashtag feminism emerges from the more general digital activism, which is "an organized public effort, making collective claim(s) on a target authority(s), in which civic initiators or supporters use digital media" (Edward, 2013). Hashtag activism specifically refers to the use of hashtags for metadata tagging and searching (Losh, 2014), usually on Twitter, for the purposes of protest, community organizing, and creating social change. Scholarly conversations on digital and hashtag activism have included research on slacktivism (Vie, 2014), protest movements (Bastos, Gajjalaand, & Tulley, 2014), Black Twitter (Brock, 2012), and indigenous digital activism (Dreher, McCallum, & Waller, 2016).

Hashtag feminism focuses these movements on feminism-related issues, including gender equity, women's rights, and women's use of social media. Scholarly research into hashtag feminism has investigated storytelling in #WhyIStayed (Clark, 2016), neoliberalism in #Aufschrei and #YesAllWomen (Baer, 2016), metadata management in India (Losh, 2014), and the toxic hashtags on Twitter (Risam, 2015). Our study enters these conversations by exploring how one particular hashtag at a particular moment in time demonstrates both limitations and potentials of hashtag feminism for creating social change. The following research questions guide this study:

1. What does the #FeministsAreUgly hashtag movement reveal about the possibilities and limitations of digital activism, and more narrowly, hashtag feminism?
2. What are the most common rhetorical strategies used in the #FeministsAreUgly movement, including linguistic and visual rhetorical strategies?
3. How is feminism characterized, defined, and constructed in the #FeministsAreUgly hashtag?

After reviewing our research methods, we address how our results respond to these questions.

## The Method

The #FeministsAreUgly resurgence on April 27, 2015 corresponded with our search for an organic hashtag feminist movement to study. We were searching for a movement that was born out of genuine response to current social and cultural events, rather than a sponsored hashtag, such as the #LikeAGirl feminist hashtag that was sponsored the Always brand.

We collected tweets using NodeXL, a Microsoft Excel plug-in that, at the time, allowed users to collect up to 18,000 lines of tweet data every fifteen minutes. (The free version now allows users to collect up to 2,000 lines of tweet data.) We collected over 60,000 tweets during April and May 2015, and defined our sample as the 2,027 tweets from April 27th, after removing retweets (Fig. 4).

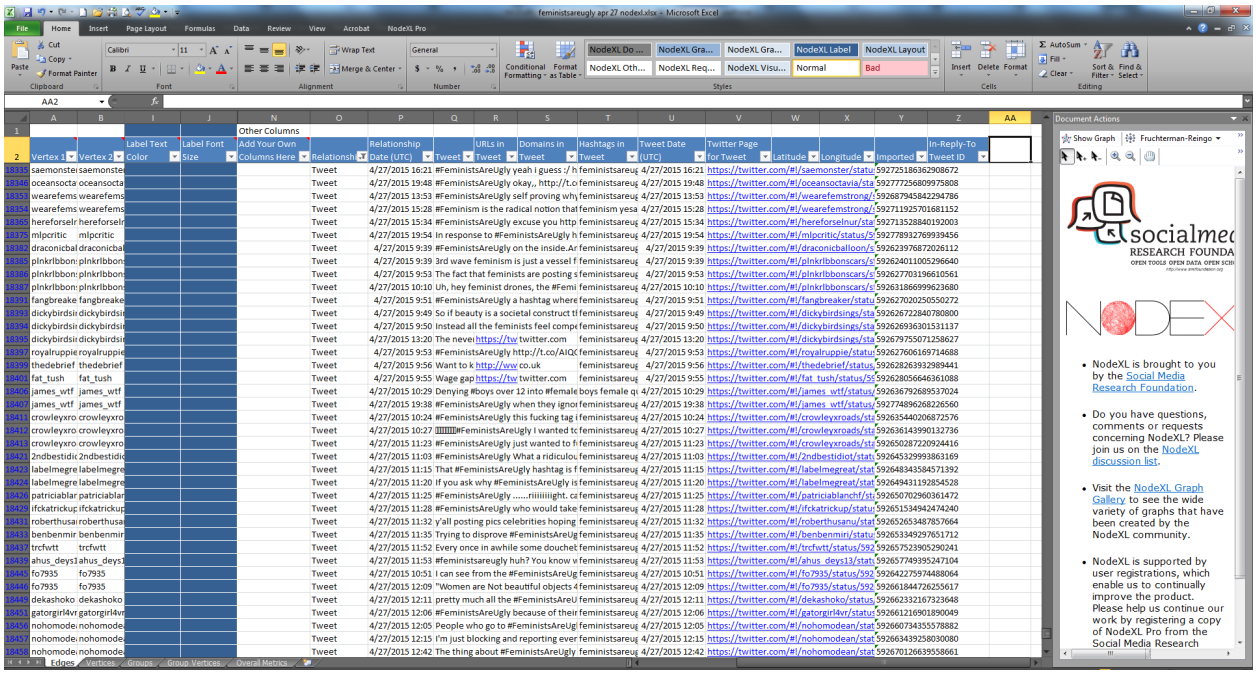


Figure 4: Raw Data Collection from NodeXL

We analyzed the sample using the qualitative approach of grounded theory as outlined by Juliet Corbin and Anselm Strauss (2008). Their approach consists of building theory from data by identifying concepts through coding (assigning values to units of text) (p. 21). The concepts are derived from the data itself (open, inductive coding) at a range of abstraction (from specific words to entire tweets). Therefore, in addition to looking for representations of feminism, we coded based on what came up inductively from the data.

We used the qualitative data analysis software MAXQDA to code the tweets (Fig. 5). This coding was a recursive process of creating and revising codes to best capture the data. We ended up with over 50 codes, grouped together in larger categories (Fig. 6).

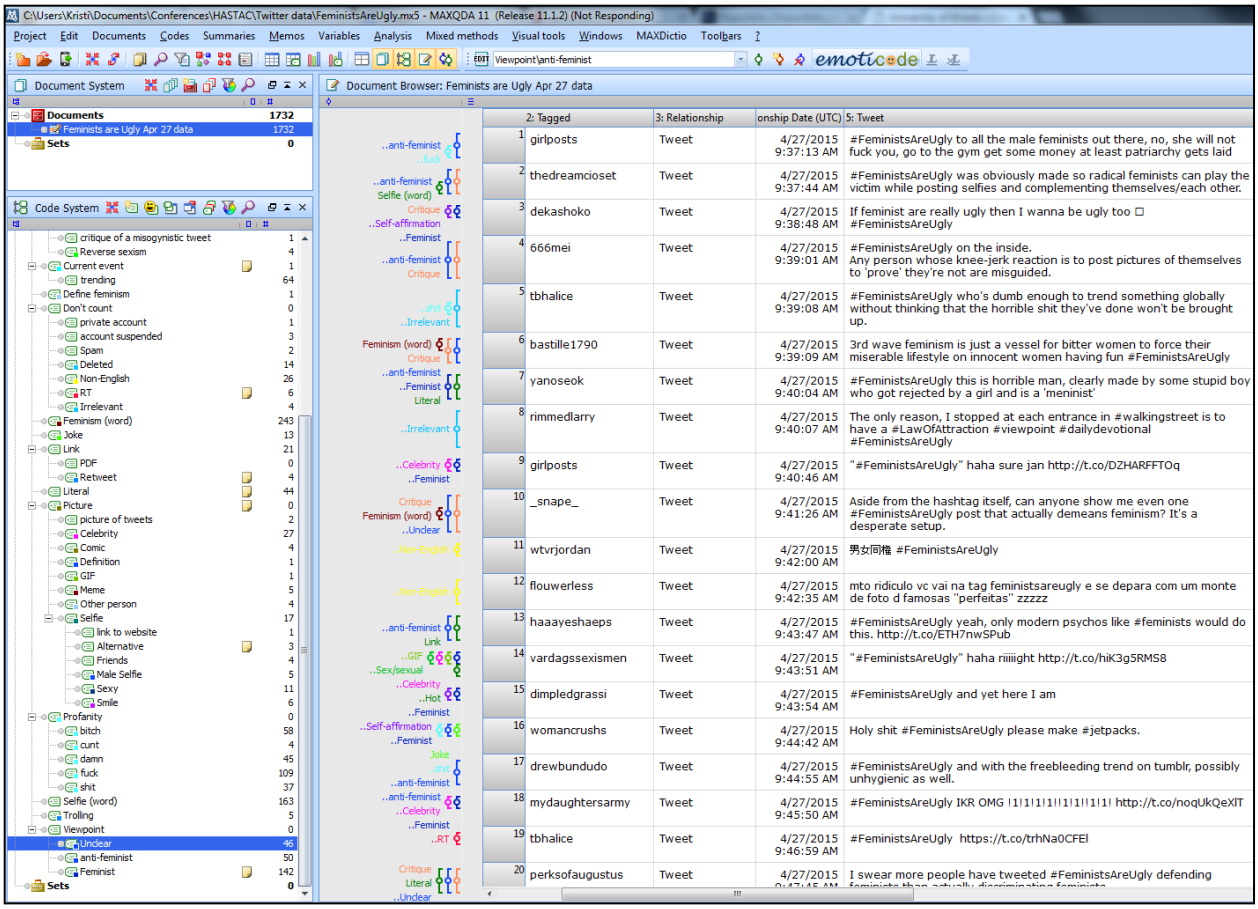



Figure 5: Screenshot of MAXQDA Coding Software

| | | | | | |
|---|---|---|---|---|---|
| **MAXQDA 3/7/2017** | **2026** | **tweets captured** | | | |
| **Code System [4336]** | **4201** | | | | |
| Don't count | TOTAL | % of total tweets | | TOTAL | % of total tweets |
| Non-English | 127 | 6.27% | FeministsAreBeautiful | 37 | 2.17% |
| Deleted | 84 | 4.15% | FeminismIsAwful | 30 | 1.76% |
| Spam | 34 | 1.68% | Meta | 97 | 5.69% |
| Retweet | 31 | 1.53% | Insult | 66 | 3.87% |
| Irrelevant/Nonsensical | 31 | 1.53% | Affirmation | | |
| Private Account | 8 | 0.40% | Self-affirmation | 64 | 3.76% |
| Account Suspended | 6 | 0.30% | Self-depracation | 12 | 0.70% |
| | **321** | 15.85% | Celebrity affirmation | 18 | 1.06% |
| Viewpoint | | | General affirmation | 13 | 0.76% |
| Feminist | 1123 | 65.90% | | **107** | 6.28% |
| Anti-Feminist | 476 | 27.93% | Critique | 3 | 0.18% |
| Neutral/Informational | 68 | 3.99% | Celebrity Culture | 9 | 0.53% |
| Unclear | 37 | 2.17% | Selfie Culture | 55 | 3.23% |
| | **1704** | 100.00% | Looks | 81 | 4.75% |
| Link | 126 | 7.39% | Reverse Sexism | 13 | 0.76% |
| Video | 8 | 0.47% | | **161** | 9.45% |
| Retweet | 2 | 0.12% | Literal | 230 | 13.50% |
| | **136** | 7.98% | Straw Man | 22 | 1.29% |
| Picture | 124 | 7.28% | | **252** | 14.79% |
| Picture of Tweets | 3 | 0.18% | Define Feminism | 52 | 3.05% |
| Celebrity | 101 | 5.93% | Meninist | 17 | 1.00% |
| Comic | 18 | 1.06% | Feminazis | 4 | 0.23% |
| GIF | 2 | 0.12% | | 73 | 4.28% |
| Meme | 22 | 1.29% | In vivo (words) | | |
| Other | 45 | 2.64% | Selfie (word) | 117 | 5.78% |
| Selfie | 317 | 18.60% | trending (word) | 43 | 2.12% |
| Alternative | 8 | 0.47% | Bitch | 40 | 1.98% |
| Friends | 8 | 0.47% | Damn | 21 | 1.04% |
| Male Selfie | 31 | 1.82% | Fuck | 82 | 4.05% |
| Sexy | 20 | 1.17% | Shit | 32 | 1.58% |
| **Total Selfies** | **384** | 22.54% | Beauty | 82 | 4.05% |
| **Total Images** | **699** | 41.02% | Cute | 32 | 1.58% |
| | | | Hot | 23 | 1.14% |
| | | | Pretty | 31 | 1.53% |
| | | | Sexy/Sexist | 13 | 0.64% |

Figure 6: Code System Results

## The Results

We first tightened our sample by removing any tweets we were unable to analyze (not in English, account suspended, etc.) and tweets we did not want to include in our sample (retweets that had slipped through the original narrowing, spam, etc.). After culling the sample in this manner, we were left with 1,704 tweets to analyze (Table 1).

| Culling the Sample | Number |
|---|---|
| Beginning Number of Tweets | 2025 |
| Not in English | 127 |
| Deleted (incl. private and suspended accounts) | 98 |
| Spam | 34 |
| Retweet | 31 |
| Irrelevant or Nonsensical | 31 |
| **Total Removed from Sample** | **321** |
| **Ending Number of Tweets** | **1704** |

Table 1: Tweets Removed From Original Sample

The first item we coded was whether the hashtag presented a feminist viewpoint, an anti-feminist viewpoint, a neutral viewpoint (such as asking for clarification on the hashtag or posting a news article), or no viewpoint. Given the feminist intentions of the hashtag's originators, followed by the way the hashtag was misunderstood and used to critique feminists, we wanted to understand the overall picture of the tweets by whether they evidenced a feminist orientation. (Note that we cannot, of course, know the user intentions; rather, we are capturing the rhetorical effect of the tweet based on language and images.) We found that 66% of the sample presented a feminist viewpoint, either by users identifying as feminists, by users adhering to the genre of the original #FeministsAreUgly tweets, or by other contextual or visual cues (see below for examples). About 28% of the sample presented an anti-feminist viewpoint, indicated by pronouns (*they* being feminists), by insulting or mocking content, or by other contextual or visual cues. About 4% of the tweets presented a neutral orientation in that they asked for information or tweeted a link to an article without a visible feminist or anti-feminist orientation. Finally, we identified a small number of tweets (2%) where users only posted the hashtag. This initial viewpoint coding helped us understand the overall picture of the tweets, including how the hashtag was working as a feminist movement.

| Viewpoint | Number | % |
|---|---|---|
| Feminist | 1123 | 65.9% |
| Anti-Feminist | 476 | 27.9% |
| Neutral (informational, asking clarification) | 68 | 4.0% |
| Unclear (only posted hashtag) | 37 | 2.2% |
| Total | 1704 | 100.0% |

Table 2: Findings Regarding Feminist Viewpoint

Examples of tweets that we labeled as feminist included those that tweeted selfies, in the genre of the originating tweets, and those that tweeted photos of celebrities who have identified as feminists to counter the myth that feminists are ugly.


Figure 7: Example Selfie Tweet


Figure 8: Example Celebrity Tweet

Examples of tweets coded as anti-feminist included users calling feminists ugly, users criticizing feminists, and users posting mocking visual images, such as absurd selfies or comics.


Figure 9: Example of Mocking Cartoon Tweet


Figure 10: Example of Mocking Selfie Tweet

Finally, examples of tweets identified as neutral included tweets with links to news articles and tweets questioning the hashtag itself. Tweets identified as neutral simply posted the hashtag.



Figures 11–12: Example of News Tweet; Example of Questioning Tweet

The next quality about the #FeministsAreUgly movement that we captured was the use of visual rhetoric, especially photos (Table 3). About 41% of the tweets in our sample included some kind of visual rhetoric. The originators of #FeministsAreUgly posted selfies and asserted their self-worth, and many of the subsequent tweets followed that format as 22% of the tweets in our sample included one or multiple selfies, sometimes with other people (Fig. 13 & 14). The selfies ranged from fun to sexy to defiant and were accompanied by a range of accompanying text. (Not captured in this figure are tweets that engaged the genre of the tweets (i.e. "FeministsAreUgly? Nah") without an accompanying photo.) The use of celebrity photos, either one photo or multiple, instead of selfies was the second most popular strategy at approximately 6% of our sample. While female celebrities were more common, including Beyonce, Taylor Swift, and Emma Watson, male celebrities like Harry Styles and Benedict Cumberbatch were also represented, as were montages of celebrities (Fig. 8, 15-16). (This category likewise excluded tweets who named celebrities without including a photo.) The "Other" category captured a range of visual rhetoric, from cartoons to GIFs to screenshots of tweets. This category also contains the tweets that included photos we were unable to categorize because they had been deleted.

| Image | Number | % |
|---|---|---|
| No Image | 1005 | 59.0% |
| Selfie(s) | 384 | 22.5% |
| Celebrity Photo(s) | 101 | 5.9% |
| Other* | 214 | 12.6% |
| Total Images | 699 | 41.0% |

*Includes comics, memes, images of other people, images of animals, etc., as well as photos that had since been deleted

Table 3: Visual Rhetoric Results

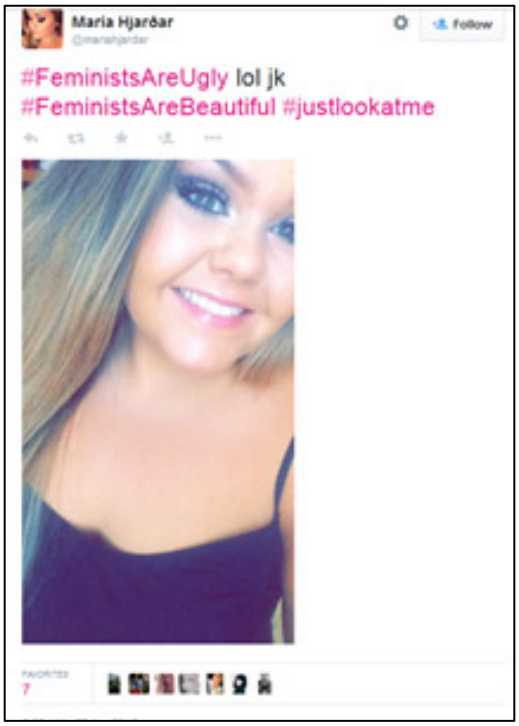
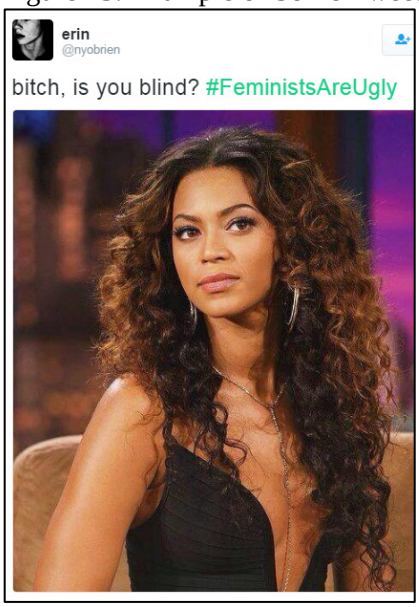



Figure 13: Example of Selfie Tweet


Figure 14: Example of Selfie Tweet



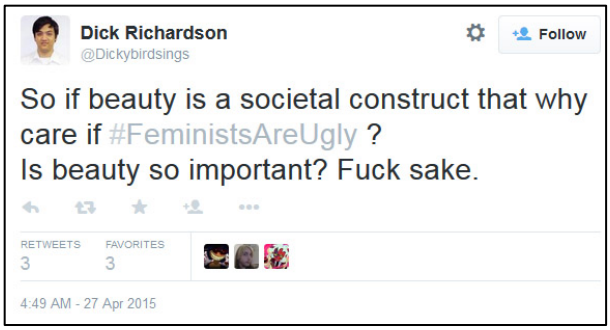


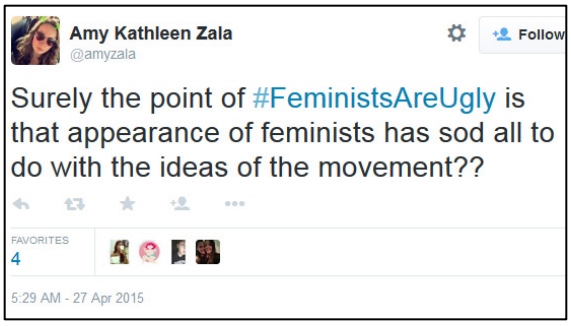
Figures 15–16: Examples of Celebrity Tweets

Critiques were a large part of the #FeministsAreUgly sample and ranged from critiquing feminism at large to critiquing the hashtag specifically. The most common critique involved users critiquing the hashtag based on a literal reading (for stating that feminists are ugly), rather than using the hashtag to satirically counter the notion (Fig. 17–18). Literal interpretations of the hashtag comprised almost 20% of our sample.


Figures 17–18: Example Tweets Critiquing the Hashtag

Users also critiqued the hashtag's focus on physical appearance. This critique came from both feminists and non-feminists and by users who seemed to understand the satire and those who did not (Fig. 19–20). Relatedly, some tweets criticized the selfie culture that the hashtag promoted, and some criticized the celebrity culture evident in the hashtag (Fig. 21–22).




Figures 19–20: Example Tweets Critiquing #FeministsAreUgly's Focus on Physical Appearance

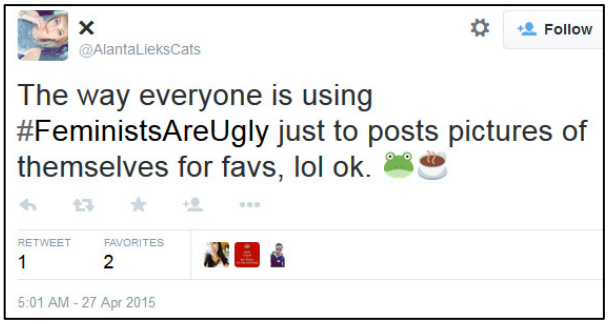



Figure 21: Example Tweet Critiquing Selfie Culture

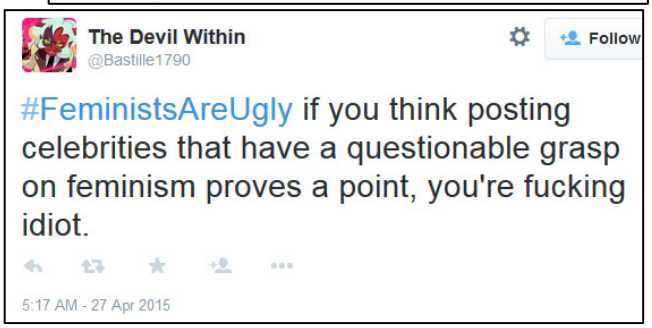



Figure 22: Example Tweet Critiquing Celebrity Culture

Ultimately, the codes and examples discussed here represent only broad strokes in our analysis of the hashtag. In the interest of space, we will now move from description to what we learned about digital feminism through this hashtag movement.

## Discussion

This analysis of over 2,000 tweets suggests multiple ways that this hashtag movement was problematic and demonstrates limitations for hashtag feminism. Nonetheless, we also identified some possibilities for constructive social critique and social change. We will first review the limitations before exploring the productive possibilities.

One of the first limitations that we identified in our sample was the narrow way that feminism was defined and represented. The most common rhetorical strategies used in this movement center the conversation on physical appearance—which on its surface does not seem feminist at all—individualized, based on the selfies and individual claims of feminism, and white, as the majority of tweets presented photos of white people. These limitations are ironic considering that the originating tweets intended to critique both the very notion that feminism is based on beauty and that feminism is often defined by white normative beauty standards. Boulourian and Yang identify as feminists of color and wanted to contest

unattainable (white) beauty standards. Boulourian wrote to the *Daily Dot*, "I wanted to find a way to change the narrative on that and thought I could help inspire others to reclaim that narrative and define for ourselves what 'beautiful' or 'ugly' mean" (Dickson, 2014).

Current intersectionality movements in feminism, where activists argue for feminists to do their work at the intersection of multiple aspects of identity (race, sexuality, ability, class, and more in addition to gender), deem the focus on white, often middle-class women as problematic (Smith, 2014). This representation of individualized, white feminism likewise ignores feminist attention to systemic sexism, such as the ways gender inequality is built into our institutional practices. This hashtag invoked these limited representations of feminism despite intentions to the contrary, which suggest that hashtag feminist movements are uncontrollable and maybe unable to achieve certain goals given the Twitter platform and Twitter culture this movement is working within. For example, individual self-focus and selfies are such a large part of Twitter culture that perhaps hashtag movements will always be limited to a focus on individuals. Similarly, the vast celebrity culture on Twitter likewise makes it difficult to imagine a hashtag feminist movement that does not involve representations of celebrities and also prioritize celebrity Twitter users (Marwick & boyd, 2011). For example, the most followed Twitter users are celebrities (Katy Perry and Justin Bieber were #1 and #2, respectively, at the time of this writing), only rivaled by companies like YouTube and Twitter itself.

Finally, the various ways that #FeministsAreUgly was taken up demonstrate the inability of social movements to predict or control the trajectory of their movements. Boulourian found herself defending her origination of #FeministsAreUgly, going as far as writing an article for *Model View Culture* in 2015 titled "Beauty as Safety: Why #FeministsAreUgly Is More Than Meets the Eye." In addition to the thousands of tweets criticizing the hashtag and its imagined interpretations, popular culture critics and journalists likewise criticized the movement. EJ Dickson (2014) wrote,

> Of course, if you look at the #FeministsAreUgly selfies, it's hard to argue that most of them don't, in fact, conform to what we think of as Western beauty standards. Most of the women are wearing makeup or pouting sexily, and some look virtually indistinguishable from a photo of a bikini model you'd see on some teenage boy's Instagram.

Dickson points out how the hashtag seems anti-feminist given its focus on looks and limited representation of diverse feminists, despite Boulourian's intentions to challenge normal beauty standards. While this may be a problematic judgment on behalf of the originators, these intensions are certainly limited by Twitter mechanics and its culture.

Despite these problems with the ways #FeministsAreUgly was taken up, we still found some productive possibilities for social change. Our main argument for the productive possibilities is that despite its problems, #FeministsAreUgly facilitated an important conversation in an online public about the definition of feminism. Twitter facilitated a discussion among thousands of users around the world that challenged traditional definitions of feminism (both popular and scholarly) and rearticulated who even got to participate in that conversation. Many users were able to negotiate the very definition of feminism and challenge who got to define it, even if that conversation more often than not was limited to a conversation about what feminism looks like. #FeministsAreUgly captured a more grassroots negotiation about who a feminist is and how they demonstrate that commitment.

Another productive outcome of the #FeministsAreUgly movement is that it provided considerable evidence of young women identifying, in public, as feminists. There is an existing debate about whether—or why—young women are failing to identify as feminists, presumably in contrast to previous generations. This debate includes examinations of why women are disinclined to identify as feminists (Erens, 2013) and claims that young feminists exist, they just define feminism differently (Powroznik, 2014). Despite the difficulty in knowing what the trends and supporting reasons really are, thousands of young women claiming feminism in an online public seems nothing but important.

In addition to these overall benefits of the #FeministsAreUgly movement, there are specific rhetorical strategies that can facilitate social activism. In addition to the numerous sexy selfies, there emerged some selfies showing diverse definitions of beauty that can challenge normative beauty standards. For example,

women with gothic or emo-type images challenged the bikini model representations that Dickson (2014) pointed out in the quote above. Selfies also showed women in everyday attire and poses in ways that celebrate their everyday lives.

Women (primarily young women) also asserted their feelings of self-worth through this hashtag. Confirmations of self-worth take the movement from beauty norm conversations to building women's confidence and self-esteem (Fig. 23). Some tweets affirmed the worth and importance of women and feminists generally.

The final productive rhetorical strategy we want to point out is the way that some posts promoted female solidarity and community building. The main example of this is group selfies that demonstrated friendship and female support (Fig. 24).

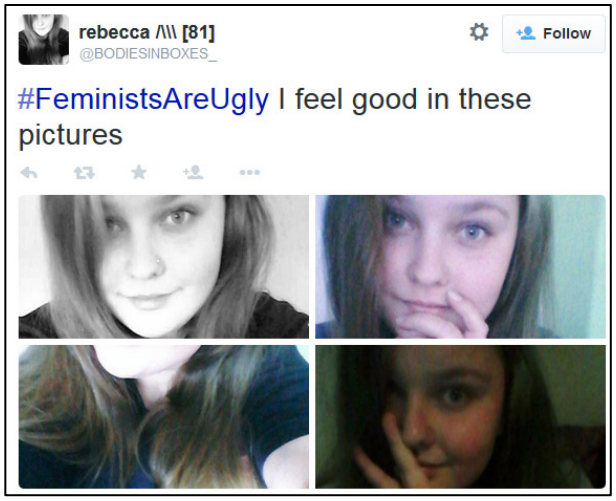



Figure 23: Example of Self-Affirming Tweet


Figure 24: Example of Female Solidarity Tweet

## Moving Forward

Our investigation into the ways that #FeministsAreUgly, particularly during the resurgence in April 2015, demonstrated both productive and problematic representations of feminism, especially when compared to the original intentions for the hashtag. By analyzing a sample of over 2,000 tweets for their representations of feminism and for the rhetorical strategies used within those representations, we leave activists and researchers with some thoughts that might help shape future hashtag feminism movements and related research. One of the major implications from this study is the limitation of satirical hashtags for the ways that they are misinterpreted and responded to on Twitter. While any feminist hashtag is likely to incur insults and trolling, more straightforward hashtags may reduce the confusion and insults from feminists themselves.

A second implication is for activists to recognize and learn about the current selfie and celebrity culture and take that into account when advocating for social change. For example, the #WomensMarch hashtags that accompanied the physical Women's Marches around the world on January 21, 2017, had celebrity participation that greatly increased the reach of important information and consciousness-raising tweets.

A final takeaway is that activist movements for diversity and inclusion may have to work to make space for that diverse audience to participate in the negotiation of feminism, from definitions to

representations. Researchers and activists can create and take advantage of opportunities to educate users about histories of feminism, persistent gender inequalities, and more. But they can also make space for new generations to work through contemporary culture and their own experiences. To be honest, this hashtag movement was initially disappointing and discouraging for its focus on physical appearance and the beauty pageant selfies that seemed to define this hashtag. But the more we reflected and worked through the data, the more we realized that we were prioritizing our own definitions of feminism over others'. Who gets to decide what young Twitter users' engagement in feminism looks like? At what point does critique of a problematic hashtag turn into a method of disciplining women's digital writing? Flawed engagement of feminism does not need to be dismissed outright. Rather, we can appreciate the way that hashtag feminism can challenge not only what feminism looks like, but also who gets to decide what it looks like. Moving forward, we encourage activists and researchers to continue these critical conversations about defining and enacting feminism in digital writing.

## Acknowledgement

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# After a Decade of Social Media: The Landscape of Social Media in Writing Instruction Today

*Stephanie Vie, University of Central Florida*

This piece, modified from its delivery as one of the three keynote speeches at Computers and Writing 2016, speculates on the role of social media in writing instruction in the twenty-first century. Drawing on the author's own grant-funded studies of social media use by college writing instructors, this talk explores trends in faculty use of social media, benefits to using social media in the classroom, and challenges or drawbacks to social media used pedagogically.

The full title of the keynote talk I delivered at Computers and Writing 2016 was "After a Decade of Social Media: The Landscape of Social Media in Writing Instruction Today." The first part of this title alludes to the fact that many of the social media tools Americans rely on most heavily today first emerged a decade ago. For example, the first YouTube video was uploaded in 2005; Reddit also began in 2005. Facebook was founded in 2004, Twitter created in 2006, and Tumblr launched in 2007. During this early time, many faculty and academic institutions were not exactly sure how to respond to the increasing use of social media technologies and grappled with the implications of these new tools.

Looking back, then, what one sees in the time period from 2005 to today is a time where social media, and social networking sites more specifically, began to impact academia and filter into scholars' and teachers' lives. Many of these emergent issues remain today. Concerns about privacy, institutional hierarchies, free speech, and the boundaries of appropriate behavior in social media still resonate. And it's precisely because so many of us (both within the U.S. and internationally) participate in social media technologies these days that these conversations are so pressing. A 2016 study of online American adults by the Pew Research Center found that 79% use Facebook, for instance, while only 7% used social media *of any kind* when the Pew Research Center began systematically tracking social media usage in 2005 (Greenwood, Perrin, & Duggan, 2016; Perrin, 2015).

At the same time that Americans have felt the impact of these changes in our daily lives, over the past decade academics broadly and computers and writing scholars more specifically have begun to consider the possibilities afforded to us through personal, professional, and pedagogical uses of social media. Some of the scholarship on college-aged students and social networking has focused on literacy practices across multiple platforms (Buck, 2012; Vie, 2007; Williams, 2009) or broad discussions of social media's impact on aspects of daily life and communication, such as digital activism (Goodling, 2015; Vie, 2014), composing within fandom communities (Potts, 2015), or responding to disasters (Bowdon, 2014; Potts, 2013). Other research has focused on singular platforms, such as Facebook (Balzhiser et al., 2011; DePew, 2011), Twitter (Jones, 2014; Wolff, 2015), Reddit (Wasike, 2011), Pinterest (DeLuca, 2015; Leckie, 2015), or Instagram (McNely, 2015; Poe Alexander & Hahner, 2017), among others. And much of the research has examined social media's impact on classroom practices and pedagogy within writing studies (Buck, 2015; Daer & Potts, 2014; Faris, 2017; Maranto & Barton, 2010; Mina, 2017; Patrick, 2013; Portanova, 2017). What I focused on in my keynote talk were some of the research results from a grant-funded study of faculty members nationwide that showcase how the field of computers and writing is beginning to connect academic practices to everyday literacies through the incorporation of social media in the classroom. Such a study adds to the existing literature on social media in computers and writing by giving readers a glimpse at the landscape of social media in writing instruction today.

## The Research Study

From 2014 to 2016, I conducted research with hundreds of writing instructors about their attitudes toward and uses of social media. The study's methods are provided in greater detail in two published pieces, "What's going on? Challenges and opportunities for social media use in the writing classroom" (Vie, 2015) and "Social media as multimodal composing: Networked rhetorics and writing in a digital

age" (Vie, forthcoming). In brief, I surveyed a total of 786 writing faculty members nationwide and conducted in-depth follow-up interviews with a selected group of thirty participants. There were 29 possible questions in the survey that asked about demographics, attitudes toward social media use in the writing classroom, specific social media tools used in the writing classroom, and benefits and challenges to using social media in writing pedagogy. I coded the survey using grounded theory (Glaser & Strauss, 1967) to discover emergent themes in the data (e.g., privacy, time, assessment, relevance). Some specific questions I asked within the survey and expanded on in the follow-up interviews included the following:

- How does social media play a role in your pedagogy?
- What benefits might you see in using social media in the classroom and what challenges might you face?
- How might you use social media for personal and professional reasons, and what benefits and challenges might you face there?

Through the survey results and the face-to-face conversations, I discovered that writing faculty are using social media for personal, professional, and pedagogical purposes more than ever before. The possibilities for academic networking and for classroom practice are substantial. At the same time, they face particular challenges and barriers to using social media for personal or pedagogical reasons. In the remainder of this keynote talk, I shared with listeners some of those challenges and barriers and described some actionable items that scholars in the field of computers and writing should keep in mind as we move forward in this landscape of social media.

## A Majority of Faculty Use Social Media Pedagogically

First, the results of my study show that the majority of faculty members I spoke with have used social media in the classroom and state they will continue to do so, and this to me is extremely heartening. In 2006, I had conducted a similar national study of faculty members' attitudes toward and uses of social media (see Vie, 2007 and Vie, 2008 for further details about the methods and findings of this earlier study). In 2006, I found that only 10% of faculty members used social media in their classroom. But today, the majority of faculty members I surveyed responded that they do use social media in the writing classroom, either as a technological tool for students to use in composing or as content for analysis or discussion. Of the faculty members who responded to my survey in 2015, 90% indicated that they have used social media as either a composing tool or as subject matter for analysis or discussion.

This means there has been a transfer from social media use in faculty members' personal lives to social media use in their academic lives. In other words, greater use of social media in faculty members' personal lives has likely also increased acceptance of their inclusion in the classroom. To return to my earlier study of faculty members' social media use in 2006, at that time, the numbers of faculty with established social media accounts was much lower. In 2006, only 29% of the faculty I surveyed had Facebook accounts and only 34% had MySpace accounts. At that time, nearly a quarter of the respondents didn't know what Facebook was, 14% said no one they knew was a member of Facebook, and nearly half said they didn't feel like they were part of the target age group (Vie, 2007). Particularly with regard to Facebook, things have certainly changed in the past decade.

## Social Media Should Be Included in the Classroom

In my current study of 786 faculty members, they frequently remarked that the ubiquity of social media should prompt greater inclusion in the classroom. A few selected comments from the survey exemplify this approach. For example, one faculty member noted that "a critical approach to social media is necessary and teaching rhetorical analysis of tweets, posts, and snaps is useful in 21st century literacies." Another said, "Social media, I think, are valuable digital writing spaces that enable students to move their writing outside of the classroom and to write for various exigencies and rhetorical situations. As a result, social media has great potential for teaching rhetoric in the 21st century." A third even remarked, "I find it fascinating that I'm doing this survey on my smart phone from a link on Facebook

that two colleagues posted. Social media also functions as a teacher and researcher network." What these results show is that overall, writing faculty are using social media technologies more frequently in their day-to-day lives, and as a result, they are seeing a corresponding increase in the possibilities for social media use in writing classrooms.

Now, of course, the goal is not to reach 100% inclusion, and there are considerable barriers and challenges to social media at a pedagogical level, but when one considers social media use both personally and professionally even just a decade earlier, it's remarkable how far we've come as a field in terms of being open to their possibilities and potentials. I think we're starting to move past the early point of suspicion and doubt where people looked at social media for academic purposes and thought that there was nothing worthwhile to be found in social media. Back in 2006 when I studied faculty members' attitudes toward social media, I received responses such as "We truly don't belong on Facebook. It is for students," and several respondents noted that they valued face-to-face communication and physical presence more than online communication. To be sure, there are still faculty members who responded to my 2015 study with extremely negative views of social media, views implying that they thought time spent paying attention to communication in social media was time not spent teaching students how to write (i.e., focus on grammar or sentence structure). But the general sentiment is shifting in that academics are much more willing today to see the possibilities for professional networking, for classroom pedagogy, and for teaching rhetorical principles and writing with social media.

## Which Social Media Technologies Are Used?

What is interesting too is what specific social media technologies faculty are using. When asked which social media tools they used, respondents in the 2015 study overwhelmingly used three particular technologies: YouTube, Facebook, and Twitter. As seen in Figure 1 below, 80% used YouTube, just about 66% used Facebook, and 60% used Twitter. The responses drop off significantly thereafter with the next highest response being Google Plus, with 30% of faculty members responding that they used this tool. Other niche social media technologies like Tumblr, Instagram, Reddit, and Pinterest may be growing in popularity for personal use, but they are not yet being incorporated into the writing classroom with as much frequency as Twitter, Facebook, and YouTube.

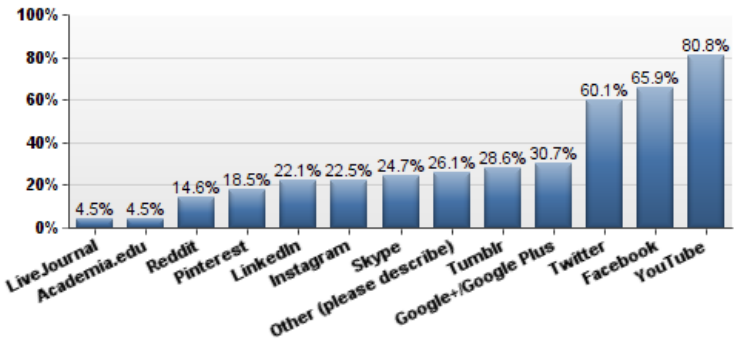


Figure 1: Which social media technologies do faculty use?

## Why Do Faculty Use Social Media Pedagogically?

Why do faculty use social media in the writing classroom? Those surveyed offered a range of responses that fell into several broad categories:

- Relevance/familiarity: These tools are well-known and students like them.
- Access/connectivity: These tools are readily available and accessible; they help connect students and teachers.

- Rhetorical awareness: These tools allow for discussions of rhetorical context, professionalism, etc.
- Composing: These tools can be used to write and communicate with others in the class and beyond.

I share here a few selected quotes from respondents that align with these categories. In terms of relevance, it is clear many faculty acknowledge that students frequently use social media and anticipate that students would not be surprised to see them in the classroom. One faculty member said, "Social media are so ubiquitous that I think we have a responsibility to not only use them in class, but also talk about them so that we can understand and be critical of our everyday composing environments." In terms of access and connectivity, some faculty members do literally talk with students about issues of technological access when choosing to use social media. A faculty respondent said:

> I use social media as a platform for student writing, which I find offers the benefit of allowing traditionally aged students to write in a medium whose affordances they are already familiar with. I fold into social media writing assignments a discussion of tech access and choices to opt in and out of social media; I provide alternate options for students who prefer not to use social media and opportunities to discuss these choices to opt out and critically analyze what such options mean.

In terms of rhetorical awareness, multiple respondents reinforced how composing in social media invokes issues of audience, purpose, genre, form, and circulation. And in terms of composing, those surveyed described an expanded understanding of literacy that includes composing in social media. In these responses, faculty members frequently reinforced the importance of how to engage the medium thoughtfully and with purpose.

## Follow-up Interviews

In follow-up interviews with 30 participants, I learned more about how faculty members viewed the benefits of participating in social media for personal and professional reasons. Several described how their job market experiences were positively impacted by their social media presence because they used it as a professionalization tool. Other faculty members discussed finding calls for papers through social media like Twitter or Reddit. Tapping into communities of like-minded individuals was important for multiple interviewees, who talked about bouncing ideas off of others, connecting to official and unofficial mentoring groups, and finding support through social media. For example, several participants described using hashtags like #WomeninTC to connect with mentoring opportunities in the women in technical communication Twitter, Facebook, and Slack communities. This is a crucial part of tapping into social capital, not just for academics but others as well, and I want to share a quote from one of my interviewees that ties together, for her, writing studies and social media and illustrates its generative potential:

> It's a way of not just consuming information, but helping me generate or create information. So, the kind of brainstorming that you see on Facebook where people will post a question about teaching or scholarship and get opinions. To me, it's kind of another part of the brainstorming process that we've always thought as part of writing.

Another echoed this sentiment when she said, "For me social media is a space where individuals, digital citizens, human beings, are really engaging in important and rhetorically significant literacy practices in their everyday lives." For me personally, what I've been excited to see over the past decade of social media use within composition studies is the shift in sentiment that has allowed many of us to see these kinds of potential benefits from tapping into personal and professional networks, to be able to humanize the profession in many ways by sharing our personal interests alongside our academic personas, to be able to call attention to the continued importance of digital rhetorical literacies as they play out in our everyday lives in these technologies.

## Challenges to Using Social Media

However, my 2015 study also shows potential challenges to using social media at the personal, curricular, and institutional levels. Overall, the challenges revealed by participants' responses included

- Lack of teacher or student efficacy
- Lack of access to technology or support systems to sustain social media use
- Lack of student interest (whether perceived or actual)
- Time constraints or pressures to keep up with technologies
- Seeing social media as a distraction
- Concerns about intellectual property issues
- Privacy issues

See Figure 2 for a breakdown of the varied responses to the question of challenges or barriers to using social media.

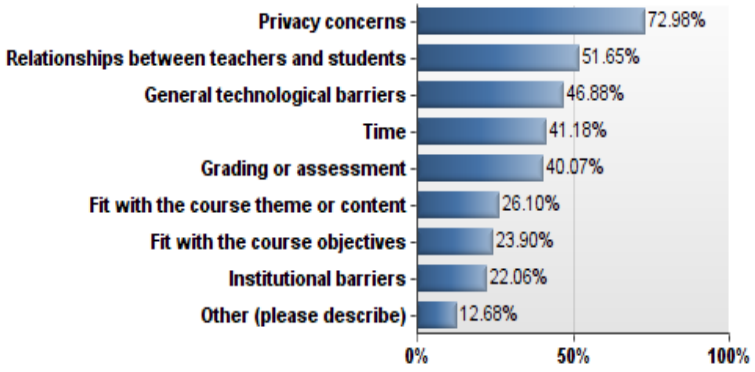


Figure 2: What challenges or barriers do you face?

### Privacy

In particular, privacy remains a central concern for faculty, even those who currently teach with social media; 73% indicated privacy was a challenge. Despite more sophisticated privacy settings today, privacy and reputation management has remained a concern for users since social media's inception. When looking back at earlier discussions about privacy in social media about a decade ago, there is evidence of tensions between teachers and students, students and academic institutions, students and employers, and so on as these groups worked to figure out the place of social media in already established academic and industry hierarchies. A decade later, concerns about privacy for academics haven't gone away; instead, they've become more complex in the wake of high profile cases like Steven Salaita and Justine Sacco. Their experiences have caused some faculty members to worry about whether their Twitter or Facebook presence might become grounds for firing them if a tweet or post is taken out of context. This is coupled with the fact that the overall climate of higher education is working to erode, not defend, protections like tenure.

For both faculty and students, then, the most significant challenge for privacy is the continued blurring between public and private lives in social media. As one faculty member said, "Maintaining professionalism is difficult, especially when I use these same media to blow off steam at the end of the day." Another noted that "I worry about students putting sensitive information 'out there' that might put them in harm's way," and certainly in the wake of massive online harassment campaigns like GamerGate,

participating in various social media for particular purposes can put students as well as faculty members in danger.

### Time

While time was the fourth most significant barrier to incorporating social media, it cropped up in the responses in multiple and significant ways. Time was a factor for faculty who considered incorporating social media into both their pedagogy and their professional lives. Of course, every new technological tool takes time—to learn it, to align it with course outcomes and goals, to help students figure out how to use it, to assess the writing or other product that emerges from it. But because of how quickly conversations evolve, memes circulate, and hashtags trend in social media, faculty face time-related issues that can be more complex for social media as compared to other technological tools. For some faculty members, keeping up with advances in social media became too much. And many faculty believe, whether erroneously or not, that their students pick up new technologies more quickly. One survey respondent stated, "The biggest challenge is my keeping up with their always escalating use of social media—they are in advance of me." For others, figuring out how to assess social media within the time constraints of a classroom was challenging. As discussed earlier, the blurred boundaries between public and private, or between the time we are on as teachers and when we're off duty, becomes difficult. A surveyed faculty member stated, "I feel as though it makes me 'on' all the time. I have questions come in via Twitter at all times. I also always have to think about my own personal, rhetorical choices on these spaces." Overall, these time-related issues seem wrapped up in a comment by a respondent: "The biggest challenge is time—time to compose, to assess, to discuss and live my life. The temptation is to be nearly always available—not a good idea."

Time also plays a role when one thinks about the potential longevity of their social media activities—a person's digital footprint can linger long after they made initial posts. As one respondent noted, "The Internet is already a cluttered place, so having students add their class projects to that clutter seems unnecessary sometimes. It's up to them whether they keep it up there or whether they keep it attached to their public online persona." Many of us, myself included, could do a better job talking with students about curating their social media activities with an eye toward the future:

- When will you participate in social media and how?
- What accounts will you keep open?
- Will you delete—or even be able to delete—dormant and inactive social media accounts?
- How can you ensure that your digital presence(s) will be accessible in the future?
- What would you like to happen with your social media presence after you die?

These can be uncomfortable conversations because they ask people to confront an uncertain future, but they are also important conversations.

However, given the ubiquity of social media in today's society, it was not surprising that many of the faculty members I spoke with noted that they would be open to using social media if many of these challenges could be addressed. These respondents who were not already using social media were generally willing to consider using it in the future. When asked, "Would you be interested in or willing to use social media in your teaching in the future?" 69% responded affirmatively.

## Conclusion: Actionable items

**Consider pedagogical use of social media when appropriate**. To return to the title of this keynote talk, "after a decade of social media," it is clear that social media technologies have transformed our lives and the ways that we communicate in multiple ways. I conclude with a few suggestions for actionable items that the field might consider. First, I think it's important to continue exposing students to an expanded form of literacy for the twenty-first century through analysis and incorporation of social media as appropriate in our pedagogy. I'm not saying that *everyone* needs to teach with social media in *every* class—I don't do that, and this is my area of expertise. What I am saying is that social media can add

value to our pedagogy and when faculty see an opportunity to help students expand their rhetorical literacies through social media, they should consider bringing them into their teaching. A great deal of writing occurs in these technologies—writing that teachers often don't pay particular attention to or consider worthy of academic attention. But at the same time, students writing in online spaces frequently don't see their writing as valuable or even consider it to be *writing* at all (see Lunsford, 2010, for more on this topic). Yet meaningful work and meaningful writing in particular happen through and because of social media all the time. Thus, I argue that the literate acts that occur in social networking sites should be read as *composing practices* worthy of academic attention. As Jonathan Alexander and Jackie Rhodes (2014) argued in their discussions of new media in composition studies, "We have perhaps privileged text-based forms of writing to the extent that we rarely address the specific invention, delivery, and rhetorical possibilities of other types of composition" (p. 3). Despite their challenges, social media offer meaningful entry points into conversations about twenty-first century composition practices.

**Move beyond the big three.** Second, I think it's also important to broaden conversations about social media beyond those Big Three that kept recurring in the studies cited earlier in this piece: Twitter, Facebook, and YouTube. It's important that we engage in research on other social media platforms, including cross-platform research, as well as longitudinal research. The scholarship we see in the field that attends to crucial issues of privacy, surveillance, data mining, race, class, and ethnicity in Facebook and Twitter is incredibly important, but I think we can find great value in extending our reach to other platforms. There are 274 million monthly unique visitors to Reddit (Reddit, 2017). There are more than 500 million people on LinkedIn, including students and recent college graduates (Awan, 2017). Over 3 billion daily Snaps are created on Snapchat (Constine, 2017). When considering how digital and rhetorical literacies shift across interfaces, within cultures, and over time, there is value in expanding scholarly research on social media beyond these Big Three. We also need more research that looks at social media abstainers along with those who join but later quit social media. While it is important to study people who use social media, whether regularly or just occasionally, we miss out if we fail to talk with those who choose not to use social media or who have stopped using these tools. Those who research social media in pedagogy need to be careful to look at more than just first-year composition (FYC), as social media has connections to a variety of classes other than FYC. And we need more research that examines social media beyond just American culture, as social media is truly a global phenomenon. Some of the most popular social media tools outside of the United States are not Facebook and Twitter, and examining social media communication within global contexts is crucial, as Kirk St. Amant (2015) has argued.

**Emphasize critical literacies and social media**. Finally, with an emphasis on how digital and rhetorical literacies shift across interfaces, I think it's important that we continue to reinforce, both for students and ourselves, the importance of critical digital literacies as applied to social media technologies. If faculty are going to bring social media into their pedagogy and professional lives, they should do so alongside a critical framework for thinking about communication in social media and in digital spaces more broadly. In social media, there is a level of rhetorical awareness necessary for effective use of these technologies. In other words, simple communication is possible using these technologies, but a level of rhetorical awareness and understanding is necessary in order to effectively construct one's user profile, communicate with others, understand and abide by the terms of service and user agreements, and so on.

In 2001, before this most recent influx of social media technologies, Laura Gurak described her term *cyberliteracy*, what she described as the ability to navigate the Internet with awareness. Gurak argued that most people don't operate on a conscious level that allows them to examine technologies as artifacts with backgrounds, politics, and agendas, instead preferring to view them as things that are "invented, advertised, packaged up, and sold to you … and do not, in and of themselves, make you do things" (p. 2). Users of social media can navigate these technologies on an unconscious level and communicate without intentional awareness of the choices behind their communication and of the impacts of that communication on others. However, conscientious and rhetorically aware users are keyed in to the ways that the sites themselves are constructed as rhetorical artifacts. Participants can consider how these sites have been designed and are maintained in order to elicit a particular kind of communication. So, instead

of thinking about Facebook, for example, as a thing that simply exists in the world as a valueless neutral entity, a rhetorically aware user of Facebook would think about the design and interface of the site, the creators of the site, and the values that are encoded into the site by the people who help create and maintain it.

To give an example, Facebook offers users many ways to describe themselves, including offering information about their gender and their marital status. But Facebook hasn't always had multiple gender options for users. For a long time, Facebook forced users to choose male or female or else they couldn't finish joining the site. In contrast, Google+ allowed users to keep their gender identification private and select other. Today, after many years of protest, Facebook offers over 50 different gender identification options, including an option to write in your own choice. In Facebook, for many years, the default image that was shown, even for a user who identifies as female, was clearly male. It wasn't until 2010 that a female avatar was offered. In Facebook, it took until 2011 for civil unions and domestic partnerships to be offered in the drop-down menus. The top six relationship options (single, in a relationship, engaged, married, it's complicated, and in an open relationship) were the only options available until 2011.

These examples showcase how technologies are designed by people, for people, and thus have particular values and ideologies embedded within them. Kristin Arola (2017), for instance, has written about what Facebook might look like if it were designed by and for American Indians. When Facebook offers a default white male avatar and no one else, it says something about what the default user is or should be. When the only choices to describe someone are male or female, or worse, other, that leaves out a great many people. What these examples illustrate is that social media technologies offer us opportunities to look at how we view the world—what we privilege, what we ignore, what we fail to understand. And what these examples *also* show is that through their participation, users can shape those technologies to better suit their needs. It was participants of these sites who resisted the dominant narratives about gender or relationship status and encouraged the site owners to make these changes. But in order to do this, we have to be willing to critically assess the technologies we use. To return to the term cyberliteracy, cyberliteracy means voicing an opinion about what these technologies should become and being an active, not a passive, participant.

After a decade of social media, it's been exciting to see how our communication practices have changed, our pedagogy has begun to incorporate these technologies, and our personal and professional lives have been impacted by social media. As with any new technology, some of the changes we've seen have been more positive than others. And I think it's important to remember that despite the ubiquity of social media these days, they really are fairly new. Back in March, Twitter had its 10-year anniversary. A decade really isn't that long. What will happen over the next decade? When I think ahead to what our social media landscape might look after the next decade of social media, I'm excited, and I can't wait to see how rich and varied the scholarship on social media that emerges from our field will be.

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# Feeding the Troll: Online Hate Speech as Communal Act

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This paper presents online hate speech as a relational process. It explores some popular conceptions of the internet troll, and using the work of Diane Davis, argues that the troll should be understood not as an embodied actor, but as an intersubjective discursive effect. All communication, Davis argued, is underlain by a structure of exposure—a presymbolic openness to the other. Language and meaning, for Davis, are also inherently fluid and fickle. I argue that these ideas find their furthest expression in the contemporary social media environment, and that the troll is an effect of this environment. Seen in this way, the troll does not speak, but is instead spoken by community norms and technological affordances. From this premise, I argue that a nonreferential view of language can help temper the troll by robbing hate speech of its performative force.

What goes on inside the mind of a Twitter troll? A pinned tweet and accompanying video from @killanderson provide a hint. The video documents an encounter from August 2016. It starts with a screenshot of another user's tweet: "White people do not get to tell people of color what is and is not racist." We hear the click of keys as @killanderson types a response: "You need to go back. You don't deserve to live in a country run by white people." This is followed by a montage of angry responses, interspersed with screenshots of @killanderson's mentions page as the number of views—people who have seen this troll's troll—climbs past 100k, 200k, to nearly 300k. The montage is overlaid by steadily building female laughter. Above the video, the text of the tweet reads simply, "I win."

In the following pages, I'd like to try to understand this tweet—and the behavior of trolls in general—in relational terms. The troll, and his target, I'll argue, define, and are defined by, each other and the world from which they emerge. This means that we—you and I—are called to take responsibility for the troll. My hope is that in doing so, we can begin to demythologize his hate speech, and ultimately, rob it of its force.

To begin, let's consider the video we just watched. In what performance is the author engaged? What does he seek to accomplish? Well, on the surface, it's a demonstration of power, of control. It seeks to show that the rhetor understands social norms (racism is bad), how norms can be breached (blatant racism), and the way in which others will respond to a breach (outrage). It also shows that he seeks this outraged response. Why? Simply because. He needs no other reason. So this tweet is persuasive rhetoric in a very basic sense. It seeks to persuade the viewer that the troll can do with her as he wishes.

Now certainly, one can't reason with a troll like @killanderson. His original claim that you need to go back contains no statement of fact which could be disputed (the original poster identifies as Native American, so to where would she return?). In fact, any attempt to argue that she does not need to go back, or that such a claim is nonsensical, would only work to acknowledge the troll's larger claim: that he is master of the conversation, that he knows what buttons to push, and pushes them at his whim.

The troll's embrace of unreasonableness has led some to compare him with the Anti-Semite, as described by Jean-Paul Sartre. Of this figure, Sartre (1995) writes:

> Never believe that anti-Semites are completely unaware of the absurdity of their replies. They know that their remarks are frivolous, open to challenge. But they are amusing themselves, for it is their adversary who is obliged to use words responsibly, since he believes in words. The anti-Semites have the right to play. They even like to play with discourse for, by giving ridiculous reasons, they discredit the seriousness of their interlocutors. (p. 20)

On the surface, this description does seem to apply to the troll. His you need to go back, with its willing incoherence does, we could say, work to discredit the seriousness of the original, presumably sincere statement as to race relations. Rather than playing within the rules—presenting an argument that white people have much to add to definitions of racism, for example—the troll destabilizes the base on which the conversation rests. Unlike the cultural left, with its refrain that words matter, the troll seems to

believe that words do not matter. Or, more precisely, that they matter in a different way. To have rhetorical impact—which is all the troll seeks, remember—words need not be true or make sense. The goal is to amuse oneself; absurdity ups the enjoyment.

The comparison of the troll with Sartre's anti-Semite is enlightening, but it fails in one key respect. Sartre is clear that for the anti-Semite, hatred of the Jew is a matter of faith: he "has chosen to devaluate words and reason" and instead respect only a pre-cognitive repulsion (p. 19). This repulsion works on a bodily/affective level. Sartre writes, for example, of a lover who is stricken impotent when he learns that his partner is a Jewess. So for the anti-Semite, hatred is passionate, physical and localized. He hates the Jew. He is a true believer, and nothing can shake his belief. This faith, in turn, allows him to play with words, because his logic goes deeper than language.

For me, it's hard to conceive of the troll as a true believer. There's racism here, and sexism, but it often seems incidental. A quick review of @killanderson's tweets, for example, reveals the standard attacks on minorities and women, along with contempt for anime and Generation Y. Unlike Sartre's anti-Semite, in other words, the troll's hatred is not localized. What are we to make of this?

A recent Medium post by writer and web comic creator Dale Beran (2017) provided insight into the psychology of the troll. Beran focused on the trolls of the so-called alt-right. As he saw it, these trolls are young men (almost exclusively young men) who have "failed at the real world and have checked out of it and into the fantasy worlds of internet forums and video games." For these subjects, Beran wrote, "America, and perhaps existence itself is a cascade of empty promises and advertisements." Their response to this artifice is a retreat from all obligations, yes, and nihilism, yes, but also something more. The alt-right, Beran argued, know that the system is rigged, and *celebrate* that fact. Through symbols such as Pepe the frog, they embrace loserdom, reveling in deplorableness. They recognize that they are grotesque neckbeards, but do not care. Or, more precisely, want to be *perceived* as not caring.

This focus on perception is key. According to Beran, the troll is acutely aware of his lack of social status. He knows he is deplorable (in our eyes). And it hurts him deeply. He performs hate, in turn, because it allows him to display, as to ultimately transcend, this deplorableness. He turns weakness into strength by embracing it. Integrally though, this transcendence can only be achieved with the help of the community. He needs an audience for his performance, bodies capable of being affected by his hate. In short, the community has defined the troll. His trolling is an attempt at redefinition. But he is not the ultimate arbiter of his fate. The final say as to what the troll is, what his actions mean, still rests with the community.

The above analysis, I hope, hints at the thoroughly relational nature of the troll. Whereas he wants to be perceived as an autonomous agent, a master manipulator, doing with others as he pleases, he is instead deeply reliant on those he affects. This relationship is so intimate, in fact, that I'd say there is no troll apart from the systems in which he moves. Liberalism, capitalism, language, Twitter: the troll is more effect than cause. To understand him, therefore, we must understand that which defines him. The work of rhetorician Diane Davis can be of assistance.

In *Inessential Solidarity: Rhetoric and Foreigner Relations* (2010), Davis, following Emmanuel Levinas, suggested that all communication is underlain by a "fundamental structure of exposure" (p. 3). There is, she wrote, "an originary (or preoriginary) rhetoricity—an affect*ability* or persuad*ability*—that is the condition for symbolic action" (p. 2). Before we can communicate, in other words, we must be exposed, open to the alterity of the other. This means that We always comes before I. The individual, the singular subject, Davis wrote, "is exposed to an inappropriable outside that constitutes it, affects and alters it, prior to and in excess of symbolic intervention" (p. 7). Before we speak, to be capable of speech, we must be defined by that which is not us.

Twitter—@killanderson's weapon of choice—is notable for being the rare social media platform that allows users to contact each other without prior permission. Hypothetically, any user can contact any other user at any time, and can say anything. As with language itself, though, there's an admission cost: to speak, users must allow themselves to be spoken to. In this sense, the platform enacts, at a fundamental level, the preoriginary addressability that Davis argued underpins all meaning making. As language users, we are never alone. Twitter makes this apparent.

The platform also provides insight into the nature of meaning. In an earlier book, *Breaking Up (at) Totality: A Rhetoric of Laughter* (2000), Davis maintained that all symbolic action is suffused with a form of erotic energy she terms laughter. Reason and logic, along with conventional discursive forms, attempt to clean up this eroticism, to stabilize meaning. This project is doomed to failure though. As a result, subjects and social structures are fluid, fickle, and in a constant state of overflow. "To be spoken by a language contorted in laughter," she wrote, "is to be spoken by language on the loose: no/thing is excluded, censored, or negated" (p. 95).

Once again, social media proves Davis's analysis apt. In the hyperconnected digital realm meaning—any meaning—can be challenged, twisted, reshaped from without. Twitter, in particular, is a fecund semantic swamp. What is the meme economy, for example, but the unchecked proliferation of meaning? New forms emerge, and with them new logics, only to immediately be submerged by newer forms and logics. Reason, as embodied in traditional philosophical discourse, has no place here. Same with grammar. And morality. The old rules simply do not apply; instead, laughter in its most primal and yes, *erotic* form rules the day.

The semantic fecundity of the digital realm allows for great creativity. Foundations are innately unstable; perversion and mutation occur constantly. The possibility of (re)invention—I'd like to suggest that this is social media's ultimate public good. Ironically, though, the same conceptual fluidity which fuels invention allows for the emergence of the troll. Here is a subject uniquely able to exploit our digital nakedness—the fact that to speak we must be spoken. Here is a subject capable of feeding off the lack of fixed meanings, the excess inherent in a language on the loose. What gives him this power? The answer, I'd argue, is in the extent to which the troll is bound up with his tools. Social media platforms are designed to capture your attention, to keep you engaged. *The troll obeys the very same logic*. His redefinition is predicated on your attention, remember. And he does what is necessary to obtain it. In this sense, he uses social media exactly as it is intended to be used. He is, we can say, less a bug, than a feature.

So if the troll is one with the system, how do we temper him? How do we allow meanings to evolve, but also check their ability to cause harm? The first impulse for many is to try and limit potential meanings, re-erect some of the barriers that technology has torn down. On Twitter, this typically takes the form of appeals to authority (demands that certain forms of speech, or certain speakers, be banned). Now, this strategy can work. It can render digital environments safer, more family friendly. Censorship is dangerous though, I'd argue, because it risks robbing these environments of their *raison d'être*. The value of tools like Twitter, remember, is their ability to help us think in new ways, ways that we can't predict or control. Limitations on meaning—any meaning—risk compromising this.

Of course, many scholars have been thinking about ways to balance freedom and security in the digital realm. In a recent *Time* magazine article, Whitney Phillips and Ryan Milner, authors of *The Ambivalent Internet: Mischief, Oddity, and Antagonism Online*, suggest a renewed commitment to what could be called humanistic ethics. They argue that digital tools often hide what's really at stake in a given situation. Real people are "flattened to pixels on a screen," abstracted from "their full emotions, politics and history" (para. 6). This decontextualization allows users to act cruelly, thoughtlessly. As an antidote, Phillips and Milner argued for recognition of the serious real-world repercussions of our online actions.

I agree it's important to consider consequences. But can such an ethics temper the troll? The troll, as we've seen, wants to be perceived as a master manipulator. It seems that publicizing the real world repercussions of his actions would only bolster this image. It would paint him as prime mover, an active agent capable of asserting force beyond the systems which define him. Let's not give him that much credit. The troll, remember, rather than being above the game, is brought into being by the game. Its attributes are thus his own. And herein lies his weakness. He is unstable, excessive, exposed. There is no I without we, remember, no troll without tools and target. This puts him in a very precarious position.

So what does this sort of relational analysis mean in practical terms? Well, it seems to me that if we refuse to grant the troll agency—if we view him solely as an intersubjective effect—we must, in a sense, take responsibility for him. We exist in every hateful word he utters, Davis would claim. And we must acknowledge this trace. When we do, what happens? I don't know; this is something we need to work out.

I suspect, though, that when hate speech is viewed as relational, our response to it will change. Maybe we will stop trying to temper the troll by force. Maybe we will see that the more we protest, the more potential for lulz.

If the troll can't be shut down by force, what then? This is a question with no easy answer, but perhaps Davis's work offers something like a starting point. Quoting Victor Vitanza, she suggested an "antibody rhetoric" capable of "enhancing our abilities to tolerate the incommensurabilities" which make up the postmodern condition (p. 102). As I read it, such a rhetoric demands the utter rejection of foundations, a rejection of even the pretense of an objective (or intersubjective) referent. In short, it means we must come to view all language—even terrible, hurtful language—as a tool deployed to achieve certain ends. When dealing with the troll, in other words, we should focus not on truth, but consequences. And we should work to deprive him of the consequences he desires.

So, in conclusion, I've argued that we should see the troll as something we, the good people of social media, call into being. He is defined from without, and only through this process gains the power to affect. This means that by redefining him, and what his rhetoric means, we can rob it of its performative force. Of course, I recognize that this is easier said than done. It would require that we come to believe (or at least act as if) words do not matter. Or they matter differently. This is a hard position to accept. Indeed, word merchants of all stripes want us to believe the opposite. In a world without limits though—which for better or worse is our world—it may be our only option.

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# Gendered Gaming: Online Fandom Roleplay and Female Gamers

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There is no question that women game; studies have shown that 52% of the gaming population is female (Jayanth, 2014, p. 1), but the industry and popular stereotypes are still struggling to catch up. I propose digital fandom roleplay as a possible research site for emerging scholarship on women and gaming communities, as it is a female-dominated population with a public, accessible, written archive of interactions, including public and anonymous discourse. Current research into gender and gaming has offered some promising insights into how physical contexts and demographics impact the way women participate in gaming. Considering fandom roleplay as a context for study can bridge the gap between existing work on gender and fanfiction and the present dominant research on female gamers in school settings. It also allows for a different view of an online gaming community than MMOs, where female players are often outnumbered and silenced due to harassment and othering based on their gender. In a topic where much of the conversation is oversimplified due to the difficulty created by social stereotyping and spatial limitations, this digital gaming community could add complexity to analysis of how female gamers navigate their gaming identities in social spaces.

There is no question that women game—to the point that studies have shown that 52% of the gaming population is female (Jayanth, 2014, p. 1)—but the industry and popular stereotypes are still struggling to catch up. Current research has begun to tackle the issue by challenging the perception that women are more reserved when it comes to games or simply less interested, but it needs corroboration in multiple settings and contexts before it can be established as more than anecdotal evidence.

Based on personal experience as a female gamer and roleplayer, I am proposing digital fandom roleplay as a possible research site. It is a female-dominated population, with a public, accessible, written archive of interactions, including public and anonymous discourse. While fandom roleplay has a comparatively small population of gamers compared to regularly studied MMO (massively multiplayer online) or MOBA (multiplayer online battle arena) platforms like *World of Warcraf*t or *League of Legends*, it is large enough to encompass a wide range of ages and a variety of discourse types through different games and paratexts.

## History and Context

Judith Butler's (1990) groundbreaking work highlighted how complicated it is to pin down the effects and boundaries of gender. Separate from biological sex, gender is constructed socially, with individuals choosing to conform or defy gender norms. It is a performance that can shift with time, expectations, and personal preference. And, while people rarely operate within those narrow dimensions, they are very aware of the social expectations—many of which are biased in application, assuming a mandatory gender binary that puts anything outside of the defined bounds in the position of other (1990, p. 35). Social pressure also changes behavior in ways that may have more to do with trying to behave like people believe they are expected to behave rather than in a way that conforms to their own sense of self and identity (Pelletier, 2008, p. 158). Hence, when boys and girls are asked in a mixed group what games they play, they will list games that are stereotypically masculine (like war games or using consoles) or feminine (simulations and PC), while individual or anonymous questionnaires show a much wider variety of results (p. 156). Students highlighted their socially gendered traits when they were in a setting where there was pressure to perform their gender and distinguish themselves from the other group in the room.

Of course, many of the studies that focus on gender and gaming take place in physical spaces (such as schools), where it is easier to schedule and structure gaming groups or activities. It is easier to observe gender performance and how biological sex and individual presentation affect behaviors through physical interactions, even if the game-play itself is digital rather than analog. In school settings especially, the panoptic effects of observation are clear; whether or not students are truly being watched at any individual

moment, there is always an expectation of being observed by either educators or peers, and behavior changes accordingly (Foucault, 2011, p. 200). When describing the effects of observation on prisoners, philosopher Michel Foucault explained that, with panopticism, "it is at once too much and too little that the prisoner should be constantly observed by an inspector: too little, for what matters is that he knows himself to be observed; too much because he has no need in fact of being so" (p. 201). The risk of being observed is usually enough to impact behavior, whether the individual acting realizes they adjust their performance or not.

This panoptic impact on behavior is why it is especially interesting to consider how embodiment and gender performance operate in digital gaming. Digital spaces allow for both anonymity and for more freedoms due to the lack of physical constraints. Users can choose how to represent themselves through words, pictures, and constructed images and avatars and, with most digital communities, have full control over whether or not they will ever physically meet other members. Performance still occurs, but community members have more potential opportunity to customize elements of that performance that might otherwise be outside of their control (such as biases based on physical appearance or vocal characteristics that can color physical interactions).

In addition, some digital spaces even allow for complete (or almost complete) anonymity by allowing users to post content without attaching an identifiable persona, which can give the impression of the observer finally disappearing and leaving the poster with complete freedom. Savvy internet users are aware of the limitations of this kind of freedom, since even anonymous interactions have identifying features like linked IP addresses, but it takes significantly more effort to link individuals to anonymous digital content than it would with most interactions in physical spaces.

In a 2011 study on disrupting gender expectations in gaming settings, Jennifer Jenson, Stephanie Fisher, and Suzanne de Castell ran two sequential afterschool video game clubs for middle school students. During the first semester, the group included both male and female students with various levels of gaming expertise, while the second semester began with the group being fully composed of female students, with male students only being introduced and integrated after the girls felt comfortable claiming the space as their own. What they discovered was that, when the girls were given the chance to feel like competent gamers before the boys were introduced to the same setting, the girls exhibited the same dominant behaviors that had typically been seen in their male counterparts during the first semester. Jensen, Fisher, and de Castell's study emphasized just how important it is to consider the context of the gaming space and how that impacts behavior in addition to biological gender.

Controlling the demographics enough to disrupt existing biases, however, can be difficult (or even impossible) in settings such as digital gaming where players are assumed to be male. The discrepancy between the perceived and actual audiences perhaps comes from the fact that female-presenting players in mixed gaming spaces often fall lower into the social hierarchy, regardless of their actual competency, becoming common scapegoats for failures (Jensen, Fisher, & de Castell, 2011, pp. 156–157). Women who attempt to assert themselves within digital gaming spaces, particularly those where their co-players are randomly selected or include more than immediate friends, are targeted with comments, insults, and requests that center on female embodiment—from questions about bra-size to jokes about kitchens or rape threats, all excused as typical gamer trash talking or trolling.

Trolling is hardly new to either the internet or gaming, but just as the gaming population has grown in popularity, so has trolling. Online harassment is not limited to singular, easy-to-avoid spaces. It is practically ubiquitous (Phillips, 2015, p. 159). As a result, women gamers in these mixed spaces often feign ignorance or simply stay silent, becoming a non-present presence in order to minimize their exposure to harassment.

If researchers are to gain a better understanding of how gender impacts how female players participate in digital gaming communities, they need to begin to separate context and social hierarchies from gender when parsing how these behavior patterns are constructed. To that purpose, it is necessary for the research to examine both mixed and female-dominated digital spaces in the same way that Jenson, Fisher, and de Castell disrupted the context of physical gaming spaces. To that end, I propose blog-based, fandom roleplay as an ideal gaming community and research opportunity.

## The Case for Study

I have been a player-participant in online roleplay communities for nineteen years, starting with old America Online (AOL) chatrooms where each chat represented a new setting, to individual roleplay threads in AOL Instant Messages (AIM). For the past seven years, my main involvement has been specifically with blog-based fandom roleplay, where the majority of the characters are taken from pre-existing texts rather than players creating original characters specifically for the new game. While I currently do not have access to any official data about gender demographics in individual games or the community at large, my long-term experience with the community has peaked my interest due to two notable characteristics:

- The player-base is overwhelmingly female. As such, while speaking with players out of character (where you talk with players as your chosen self-identity, rather than as the character you play in-game), new players are often assumed to be female unless they state otherwise.
- The space includes multiple communities and platforms where players can anonymously comment about games, players, or other issues in a public way, allowing for some of the same anonymous dynamics found in gaming spaces like those seen around Massive Multiplayer Online games (MMOs) or e-sports.

### Anonymity, Trolling, and Female Populations

It is worth noting that, unlike many common forums for gaming-behavior research (such as MMOs), behavior regulation is generally managed more through social interaction than through computer or other program-based restrictions. Online roleplay communities also differ from table-top games, which deal with conflicts by rolling dice to determine your success or failure, as most online roleplay games rely on the players to resolve conflicts through negotiation. This negotiation can have consequences when trying to establish if anonymous behavior differs between gender, since online roleplay relies on a surprising amount of social performance linked to a specific player identity, unlike many larger, more anonymous communities. However, in addition to games where researchers can access a wealth of written interactions between named players, there are also two notable forums that are devoted to anonymous commentary: *RPanons*, which allows for anonymous content of all kinds (with some terms of service restrictions on pornographic content or tags that invade other players' privacy), and *Wankgate*, which focuses on complaints about players or games.

These forums are particularly interesting when compared with Mia Consalvo's (2007) research on cheating and other anti-social interactions (such as trolling) in gaming communities. While her initial findings demonstrated that male players were more likely to cheat in multiplayer settings than female players, Consalvo's continued work revealed that, when gender imbalances disappeared or shifted in favor of female communities, women showed a similar willingness and ability to cheat others (pp. 125–126). However, the limited number of easily identifiable, female-dominated communities makes it difficult to corroborate her findings. Examinations of the anonymous interactions in online fandom roleplay can act as a foundation for continuing—and, unfortunately, confirming—her research. *Wankgate*, especially, is notorious for showing the worst stereotypes of anonymous behavior, including doxxing players, bringing in personal information about players' families or private lives to shame or discredit them, using "sock" accounts (fake accounts made to hide the poster's identity and/or make it seem like multiple people are making the same complaint, instead of just one), and other forms of anonymous commentary.

Finding these overlapping behaviors in a forum known to be dominantly female would allow for useful comparisons in frequency, usage, and reception when compared to other, less gendered arenas.

### Diverse Contexts

In addition to a dominant female population of gamers, online fandom roleplay takes place in a series of individual games, each of which has their own specific setting and sets of rules but which share a

number of community members. Types of games may include panfandom (where players mix characters from multiple settings), fandom-specific (where the setting or characters must all fit into a specific fandom), adult-specific, genre-specific, and many more. Each game also has its own, individual set of rules for play and community interactions, with some requiring a stringent application process to play, invite-only admittance, or free-for-all participation.

In such a small setting, overlapping membership in games can impact players' reputations within the community. Adult games usually keep their membership lists private for the protection of their players, and even the public record of more general games often becomes subject to discussion on anonymous forums like *Wankgate*, where slow players can be attacked for being in too many games, playing the same character in too many places ("character sitting"), or only playing one type of character.

In addition to affecting their image in the community, having a record to players' activity in many forums can help researchers separate game-specific or character-specific behavior from their general behavior within the community as a whole. For example, a player who is a moderator for one game is likely to be more reserved in their communication because of their position of authority, which can impact a researcher's perception of that player's behavior. But if the same player is also a player in multiple games where they do not have the same authoritative role, researchers can gain a much clearer image of gamers in a larger context. The fact that individual players can be found in multiple, diverse communities allows for a comparison of player performance and identity in a way that studies limited to school or business settings cannot manage.

Online fandom roleplay games also tend to have monthly or bi-monthly How's My Driving (HMD) critiques, where players are encouraged (or even required) to open themselves up to feedback and criticism from other players in the game. This setup creates a written archive of the kinds of commentary and critique that often comes verbally over a mic during MMO gameplay. Critiques can be constructive or as troll-like as one might expect from anonymous commentators, and the resulting discussions can add an interesting dynamic to looking at how female gamers give and receive criticism in gaming—which is particularly useful when looking into gendered critiques about female gamers just not being able to handle it when facing trolling and attacks from male gamers in other forums.

### A Public Archive

Finally, one of the most beneficial aspects of online fandom roleplay is the written nature of the discourse. Unlike many gaming forums, a vast majority of the interactions surrounding fandom roleplay is preserved in public, written formats. Because much of the in-game and paratextual work of roleplay takes place on public, community forums, these interactions are available for research and reference beyond the immediate present, allowing for research focused on shifts in communities or players over time as well as access to materials that are personal, which is an interesting contrast to the kinds of ethnographic materials that may be gathered in more physical spaces where a researcher's very presence may shift an individual's performance. Because materials and interactions may be collected after the fact, participants in a study can consent to release threads that highlight a variety of social contexts.

## Conclusion

Current research into gender and gaming has offered some promising insights into how physical contexts and demographics impact the way women participate in gaming. Considering fandom roleplay as a context for study can bridge the gap between existing work on gender and fanfiction and the present, dominating research on female gamers in school settings. It also allows for a different view of an online gaming community than MMOs, where female players are often outnumbered and silenced due to harassment and othering based on their gender.

Also, while this initial overview of the benefits of fandom roleplay is based largely on personal anecdotal evidence, the presence of easily-accessible archives allows for a great deal of flexibility in research possibilities. In a topic where much of the conversation is oversimplified due to the difficulty

created by social stereotyping and spatial limitations, this digital gaming community could add complexity to analysis of how female-gamers navigate their gaming identities in social spaces.

I love fandom roleplay and the community I have built there over the years, and I find it fascinating to see how and where conflicts differ in a female-dominated setting from other, non-gender specific gaming arenas. If we, as researchers, are going to combat our own biases in doing gender-based research, this platform is ideal for seeing a gendered space that is diverse and dynamic and allows for progress in a large number of research questions that others have begun to explore.

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# The Role of Belief in the Material Techniques of Invention

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Bringing together two related frames of reference, new materialism and post-techne, this discussion considers how writers' beliefs inform what material techniques they employ in service of rhetorical invention. Through a case example of one writer's use of a Lily Pulitzer planner, a set of social media platforms, a table, and a handwritten list, this discussion shows that the beliefs about writing that writers develop over the course of their lives powerfully influence the writing process. Specifically, writers' beliefs inform what possibilities they see in the materials involved in their writing process and the techniques they employ in service to invention.

Recent studies have examined the role of mundane and ubiquitous tools and their associated practices in writers' lives. In her materialist account of writing, Laura Micciche (2014) argued for an examination of writing that shifts focus from the individual writer in the act of producing texts to "a merging of various forms of matter—objects, pets, sounds, tools, books, bodies, spaces, feelings, and so on—in an activity not solely dependent on one's control but made possible by elements that codetermine writing's possibility" (p. 498). Operating from another theoretical perspective and also calling attention to the relationships between writers and entities entailed in the writing situation, Byron Hawk (2009) developed the concept of post-techne to name the techniques of invention writers employ by "enacting ambient elements" of the rhetorical situation "in service to invention" (p. 383). Like materialist views, Hawk's post-techne invited examination of writing practices that are dependent on and enabled by human and non-human entities entailed in the writing situation.

My purpose in bringing these two frames of reference together, materialism and post-techne, is to examine the relationships between writers' material techniques of invention and how writers come to understand writing as they respond to rhetorical situations over the course of their lives. As research like Kevin Roozen's (2009) has shown, over time, writers develop a model or conception of what writing is, and as writers enter into new rhetorical situations, their gradually developed conception informs their responses. Put differently, the contexts and situations in a writers' lives are linked in their trajectories of literate development (Prior and Shipka, 2003, p. 228). In terms of techniques, the practices that writers employ to address rhetorical situations have a history, originating in one context and adapted later for subsequent writing situations. This research shows that throughout moments of origination and adaption writers develop beliefs about writing through the practices and materials employed in service to addressing rhetorical situations.

To examine how writers gradually come to believe notions about writing—to conceptualize writing—through their interactions with materials, this discussion comes in two parts. First, I draw on definitions of a kind of knowledge, techne, to define beliefs in relation to the writing process, focusing on how beliefs form through the use of materials in the writing process and later inform processes. Second, I provide a case example of a writer whose beliefs about her process informed her understanding of what writing does and what mundane and material practices best supported her writing process.

## The Role of Belief in the Act of Writing

In Kelly Pender's (2011) account of techne in classical rhetoric, she defined techne as knowledge of an activity that removes a producer "from dependence on habit and chance" (p. 22). In other words, a writer—or any kind of creator—in possession of techne has knowledge that a practitioner "who possesses only a knack, that is, an unreflective (or unreflected-upon) habit attained through practice" does not have (p. 22). James Porter (2008) demonstrated the value of teche—here, a combination of technical procedure and rhetorical knowledge—as a frame to reconstruct the canon of delivery for digital environments (p. 211). To critique classical views of techne, Pender argued that classical conceptions of techne assume "writers are autonomous subjects who work through the power of their own agency to act *on* nature," and

in contrast, the concept of post-techne brings attention to the situatedness of writers as one of many "embedded elements" within a rhetorical situation (p. 99, emphasis hers). Like materialist accounts of writing, post-techne emphasizes relationships between the writer and other entities—both human and non-human—entailed in the rhetorical situation, redefining invention as the act of situating the writer within a constellation of materials to enact the possibilities for invention (Hawk, 2007 p. 206). Paul Prior and Jody Shipka's (2003) analysis of writers' processes through their framework of "environment-selecting and -structuring practices" demonstrated the breadth of materials entailed in rhetorical situations: sounds from the dryer, furnishings, televisions, research notebooks, and monk chants on CD. Their account of the relations between writers, technologies, spaces, and other materials as constitutive with the act of writing show that writing is enmeshed with the people, places, and things of everyday life, and these materials aid in invention and make the act of writing possible.

My claim is that writers' past engagements with materials and the "environmental and bodily" techniques that writers employ (Hawk, 2009 p. 384) result in a set of beliefs that structure writers' processes. Existing accounts of process like Prior and Shipka's and Roozen's have shown that writing is codependent with past experiences and materials, but beliefs have not yet been examined as part of the constellation of elements that codetermine writing's possibility. In *Understanding Belief*, Nils Nilsson (2014) described beliefs as operating ideas that guide daily life "in perceiving a current situation, in identifying appropriate actions, and in predicting the effects of those actions" (p. 14). In this sense, beliefs about writing function much like writing knowledge: a conceptual framework or "mental model" useful for approaching writing tasks (Yancey, Robertson, & Taczak, 2014, p. 41); however, beliefs and knowledge differ in how they are developed. Beliefs are developed as part of lived experience and always in relation to already-held beliefs, or as Nils Nilsson (2014) put it: "All of our beliefs are mental constructions. Some are consequences of other beliefs, and some are explanations built to explain existing beliefs and experiences" (p. 27). Put baldly: beliefs are often self-reinforcing, "influenced mainly by neighboring beliefs in the network" of existing beliefs (p. 58). In contrast, as Kathleen Yancey, Liane Robertson, and Kara Taczak (2014) showed, new knowledge interacts with prior knowledge differently. Rather than reinforcing prior knowledge, new knowledge requires transformation of prior knowledge for successful learning, what they called remix: "prior knowledge revised synthetically to *incorporate* new concepts and practices into the prior model of writing" (p. 116, emphasis theirs). Thus, while beliefs encourage the lamination of a model of writing and its accompanying practices, knowledge-making entails bringing together competing or otherwise incongruent sources of evidence.

In what follows, I present a case example of a writer, Rosemary, who has developed a belief about writing-as-connecting based on her past experiences. Her belief emphasizes using texts and technologies to connect with others, and this belief organizes her writing process: influencing the materials she employs when writing. As I will also show, Rosemary's beliefs entail a set of material techniques that she employs in service to rhetorical invention, always shaping what she invents and her goals for writing.

## Methods

This case example was developed as part of IRB-approved research examining the relationship between material writing practices and writers' past experiences. Throughout the fall 2015 semester, I collected three sets of data over a period of two months—a retrospective interview, a direct observation, and a culminating interview—from a convenience sample of eight informants recruited from two different sections of an upper-level digital writing course. The study's first phase of research, the retrospective interview, was informed by Prior and Shipka's (2003) drawings of environment-selecting and -structuring practices and Kevin Roozen's (2009) process-tracing interviews to construct a broad overview of composers' past and current experiences. The second phase, the direct observation, involved recording the informants' writing practices by recording their screen in Quicktime while documenting their off-screen activities in field notes. Finally, the culminating interview was an adaptation of Roozen's (2010) text-based interviews; like Roozen's interviews, this study's culminating interview was "focused on texts and

materials" specific to a "textual activit[y]"—in this case, the screen recording made during the direct observation (p. 322). The data were then coded and code-checked by a senior colleague through a deductive coding scheme that identified distinct aspects of writing practices: technology, prior practice, environment, affect, and sociality. In what follows, I provide an overview of Rosemary's writing development and the formation of her beliefs about writing-as-connecting. Then, I discuss how that belief informs her writing practices once she had come to college.

## Rosemary's Background and Writing Beliefs

As a child, Rosemary was diagnosed with dyslexia, and to cope with her dyslexia, she attended an after-school tutoring program where she learned "tricks" to help her manage the effects of her dyslexia. Rosemary learned to read with a clear purple ruler over the words to "make the words pop a little more" and to write with a pencil inside "a ball that had holes in it" that forced her to write more slowly to avoid "making any mistakes." In addition to attending the after-school program, she received support at home from her father, who took time each night to read books like *Alice in Wonderland* and *The Hobbit* with her—a scene of reading that Deborah Brandt (2001) found to be common in American households (p. 150). Later in her childhood, Rosemary began reading on her own, and the support she received at home and at school worked. By the time Rosemary transitioned from elementary school to middle school, she read at a grade level above her classmates.

When Rosemary began middle school, she entered into a new school system because her parents moved from Philadelphia to Boston. The difficulties of moving to a different city were exacerbated by transitioning from a self-contained classroom in elementary school to a period-based school day in middle school. To help her make the transition to her new school structure, Rosemary began keeping a planner—a practice that she kept up through high school and during college: "I've always used an agenda. In middle school, they gave [agendas] to us. And it's just something that has helped me—having the dates and stuff like that." Rosemary also began writing poetry and posting to social networks in middle school, often using her social networking accounts—MySpace and a Blogger site—to share her poems with her friends. Invigorated by ability to connect with people through sharing her poetry, Rosemary continued to write and share poems throughout high school. Her interest in poetry was motivated—at least in part—by encouragement and support from her teachers, friends, and parents. The wealth of support Rosemary received was instrumental in her winning an NCTE award for her poetry in high school.

Through these early experiences of reading with her father and sharing her writing poetry, Rosemary gradually developed a belief about writing as connecting with others:

> I feel like writing is language no matter what. Everything is communication, and I'm definitely very into talking and expressing my feelings to others. And that's where—I express my feelings that way. I'm definitely a type of person who's extroverted I would say, so I'm driven by relationships in my life, and I feel like writing is just another way of communicating my feelings be it online, texting, or through social media.

Rosemary's past experiences reading and writing resulted in the development of this belief, because throughout her life Rosemary received support and encouragement for her reading and writing throughout her life from a variety of sources: her tutors, her parents, her teachers, her friends, and her sorority sisters. Although her parents, tutors, teachers, and friends were not formal collaborators nor were they necessarily audiences for her writing, these ongoing interactions informed the genres and purpose of Rosemary's writing, and as I will show in section that follows, Rosemary's belief about writing-as-connecting also informed the techniques she employed in college, particularly her use of a Lily Pulitzer planner to organize; of public and private online platforms like Instagram and messaging apps; and of a technique called *table day* to prioritize her schoolwork above her other responsibilities. Through the materials that she used in each of these activities, Rosemary's goal of connecting with others shaped how and what she invented—including her own identity.

## Rosemary's Lily Pulizer Planner

Although planners had been an important part of Rosemary's writing since middle school, Rosemary found another possibility for her planner in college when she began using the same kind of planner her sorority sisters used: a monogrammed planner made by Lily Pulitzer:

> But a lot of the sorority girls have the Lily Pulitzer ones, and you can go to the Greek stop and get a free monogram, and I didn't even know what a monogram was until I moved here. But I think they're cool, so – It's a neat way to put everything down for sorority events, for school events, for dates I have to remember. And it's small enough so that I can carry it around wherever. It's a hard cover, so it never gets damaged. I fold back the pages to make it easier to find stuff in the future.

Rosemary's use of a planner afforded her the opportunity to express her identity as part of a community, enabling her to discuss the Lily Pulitzer brand and Lily Pulitzer planners with her sorority sisters. Thus, while her planner was a tool she used to organize the events, deadlines, and commitments in her life, the planner itself—its brand and the status of that brand—provided Rosemary a way to connect with her fellow sisters.

## Rosemary's Professional and Private Selves

Since coming to college, Rosemary re-focused her goals as a writer, shifting from creative writing to technical writing. This change was prompted by joining her sorority—a community that valued professionalization and paid little attention to arts like poetry. To shape her new identity, Rosemary deleted her poetry blog: "I took down my blog last year, so right now I'm focusing on developing my professional self versus my private self. So having something be so public—I wasn't proud of it." Additionally, she replicated this split between the professional and the private in her social media accounts, often opting to use private messaging apps and closed groups to communicate private information. To communicate publically—usually on behalf of her sorority—she joined Instagram:

> I got Instagram the week I came to college. My best friend kept telling me that I need to get it. It's more popular here than up north. I know that for a fact, because I have friends in both places. And my friends up north barely post pictures or like pictures. And then here a lot more people use it. I get a lot more feedback from people who are here. So that probably fueled it a little bit—a lot of likes and stuff like that. I'm very social, and even on Facebook, a lot of my posts are pictures of what I'm doing. I love manipulating with the filters. So, I think that it's really fun, and the short, witty captions, I really like doing that. With all my sorority sisters, it's a race to see who can get the best caption the quickest in different situations. So, we will do themed things like 80s rollerblading themed parties. We went to Harry Potter world, so we would post witty things about the situation that we're in.

Thus, although Rosemary no longer wrote creatively—a kind of writing in which she had a wealth of experience and success—the current state of her creative writing and her new interest in Instagram reinforce the idea that regardless of genre, Rosemary wrote to connect, to create and sustain relationships with others.

## Rosemary's Table Day

Although Rosemary began projects long before the deadline—sometimes beginning to draft weeks in advance—she occasionally fell behind in her schoolwork. When she needed to focus in order to meet deadline, she employed a practice that she called table day:

> If I'm falling behind a little bit—One of my sorority sisters calls it table day where you sit down and write down everything you need to do and then you go through it like a list

> and complete everything. I think that's fun. She'll put everything out on the table and put it away slowly, but I'll do it more by the paper.

A version of a strategy that one of her sorority sisters used, Rosemary's table day involved a list written on "a [paper] sticky note" in her planner to get caught up when falling behind in her coursework. Although the primary function of table day was to give her opportunity and motivation to meet deadlines, it had a second function of allowing her to invent herself as a member of her sorority. Like her agenda and her social networking, table day was another way that Rosemary connected with others. By employing a version of a practice modeled by one of her sorority sisters, Rosemary engaged in a shared practice that allowed her to bond with her sorority sister, and it had the added benefit of motivating her to complete her coursework.

## Conclusion

This case example of one writer's belief and associated practices indicates that beliefs influence writers in profound ways. They inform the materials writers cull to address writing situations, their goals for writing, and their identities as writers. Unlike the other informants in this study, Rosemary had always experienced literacy as a social activity that began for her at a young age during her tutoring sessions after school. In college, that belief served her well because through her belief of writing as a means of connecting, Rosemary readily identified how she might employ texts and technologies to foster relationships with people around her. Because beliefs orient writers to materials, practices, and possibilities, understanding how beliefs and knowledge interact in the lives of writers is consequential in the teaching of writing. As is the case with writing knowledge, the beliefs that writers develop and draw from can be more or less helpful (Yancey, Robertson, and Taczak, 2014, p. 23) to writers, particularly in cases where writers' beliefs may compete with established writing knowledge. Because Rosemary's beliefs about writing emphasized writing's capacity to connect with others, the techniques that she developed to help her respond to rhetorical situations were productive. In short, because of the richness of Rosemary's experiences, she happened to develop a set of useful beliefs about writing that enabled her to develop productive practices with materials she had culled to include in her writing process. A different set of experiences may have resulted in a less helpful set of beliefs: particularly if those experiences were limited to demonstrating content knowledge in service to preparation for high-stakes tests. Providing students room to articulate what they believe about writing and opportunities to synthesize those beliefs with writing knowledge is one place to start recognizing how their past experience influence how they write and why they write.

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# Digital Research Methods: Databases, Ethics, Enactments, Histories, and Processes

*Megan McIntyre, Dartmouth College*
*Rik Hunter, University of Tennessee-Chattanooga*
*Kerry Banazek, University of Pittsburgh*
*Kelsey Cameron, University of Pittsburgh*

How do ever-shifting digital methods and research sites alter the character of writing research? How might we understand the historical, practical, and ethical dimensions of such research? Taken together, these presentations offer a set of questions and provocations (and a few potential—and preliminary—answers) meant to open conversations about the specific challenges of digital writing research.

Last fall, when Rik and Megan began talking about putting this panel together, they were both fresh from the Dartmouth Summer Seminar for Composition Research. The seminar, then in its fourth year, brings together writing studies scholars from across the world to learn more about empirical, qualitative, and quantitative research methods and to develop their own projects in concert with leading researchers in the field. During the seminar, Rik and Megan talked a number of times about the difficulty of method, especially digital research methods. They also talked a bit about research concerns beyond methodology, including the very real and pressing issues of tenure, time, and failure.

Too often in conference presentations and published papers, we shy away from discussing the specific and banal concerns that present themselves when we conduct writing research. And frequently, we are afraid to admit that we are lost or that we have employed particular methods that now seem less than ideal. We offer the following pieces to open up those conversations in an effort to find ways to better represent how research is actually conducted in writing studies.

We also offer the following pieces as a gesture toward better understanding how digital writing spaces and methods may have changed our research practices. Twelve years have passed since Kathleen Yancey called on the attendees of CCCC to make room in their theories, pedagogies, and practices for new digital writing spaces. Nine years have passed since the publication of Heidi A. McKee and Dànielle DeVoss's groundbreaking examination of digital writing methods and ethics. Eight years have passed since McKee and James Porter grappled with the particular ethical challenges of digital writing research. What has changed since these foundational pieces were published?

In, some ways, nothing has changed: pedagogical orthodoxies that privilege alphabetic text persist. On the other hand, much has changed in that digital research sites, questions, and methods have proliferated and digital rhetoric has become more firmly entrenched in the discipline, something reinforced by the job market postings that include digital rhetoric/writing.

We hope that these brief interventions offer ways of understanding how writing research methods and ethics continue to evolve in the face of ever-changing digital writing spaces and practices.

Megan McIntrye's "#Tweet-Search: Perils and Possibilities" recounted her "experiences as a novice researcher thrown into digital research without much methodological training or technical skill" to explore the issue of informed consent when institutional review boards do not require consent.

Rik Hunter's "I Wanna Be 'RAD,' But What's the ROI?" explored the value of the concept of "return on investment" and the ethics of choosing more or less demanding methods and projects (i.e., un-"RAD" research) when navigating a heavy teaching load. In a publish or perish tenure system that seems to reward quantity of publications over quality—like getting a product out for sales—what are the ethics of publishing good-is-good-enough digital research?

Kerry Banazek, in "Objects to Think With vs. Objects of Study," considered the interplay between materialist philosophy and empirical research's relationship to materiality and described the traps

researchers sometimes fall into when discussing ethics and research design. She argued that there is no such thing as a research project that is not also a philosophical project.

Kelsey Cameron's "Uncovering Web Histories" discussed strategies for accessing, collecting, and analyzing past iterations of contemporary websites and argued for the importance of attention not only to history but also the affordance and constraints of archival tools. That is, web history is not a single, static thing, but an evolving spectrum of approaches and technologies geared toward different ends.

## Megan McIntrye: #Tweet-Search: Perils and Possibilities

In this presentation, I recount my own messy introduction to digital methods. My experiences as a novice researcher thrown into digital research without much methodological training or technical skill led me to ask three related questions: How do we best collect tweets? How/why code tweets? And is a profile a person? I argue that this last, ethical question is the most pressing of the three, especially for those of us interested in investigating digital protest movements or online harassment.

In April 2013, I had just defended my dissertation prospectus. My committee was happy with the shape of my theoretical argument, but they expressed concerns about my (lack of a) research site. Around the same time, an acquaintance from college began posting on Facebook about running the Boston Marathon. I had never known anyone who would run the marathon, and so, on April 15th, I watched the live feed of the race online. I was still watching when the bombs exploded. I quickly opened both Facebook and Twitter, trying to figure out what had happened and whether she was okay. As I awaited news of her whereabouts, however, I began noticing the multiplication of hashtags related to the race and the explosions. I watched in real-time as the official race hashtag became a place for sharing news, condolences, offers of help, and pleas for information about loved ones. In that moment, it clicked for me, and I realized this could be my site. If I wanted to examine ways that nonhumans participate in agency alongside humans, what better place to do so than in the middle of these storms of tweets?

The problem was, however, that I was not technically or methodologically prepared for that kind of project. I cobbled together methods and learned technical details and approaches on the fly, and reflecting on that experience now, I think I can offer linked questions (and some answers) to open up discussions about the kinds of methods and ethics that social media research demands.

First, though, I want to note that my interest in tweets is almost always qualitative. I find quantitative analyses interesting, but qualitative work allows me to contribute deep data to our emerging obsession with big data. Writing about her own experiences of research on Twitter, Alice Marwick (2013) made a similar point: "Qualitative research allows scholars to investigate the practices of a particular user group, as it can go beyond tracking follower counts or hashtag use to include many more sources of input about a specific community or user segment" (p. 109). Qualitative analyses of social media practices enable us to contextualize practices in ways too often elided by the meta-analysis at the heart of big data.

This interest in qualitative (or mixed methods) examinations of Twitter led me to my three questions.

First, a technical question: How best do we collect tweets? As I noted before, I was not technically prepared for doing the research I found myself most wanting to do. In the immediate aftermath of the explosions and the growing Twitter conversations, I had no clue how to even capture what I was seeing. So, I ended up with three 200+ page PDF screen grabs of various hashtag conversations—not the best way to capture, store, or set myself up for easy analysis later on. Depending on a researcher's level of comfort (and preparation), tweets can be collected in a few different ways. In terms of low-tech approaches, one could follow my bad example and create PDFs or use a free, user-friendly site like HootSuite or Tweetdeck. For those with more tech comfort or for those willing to learn, it might make sense to create a Twitter developer account for free and then use a scraping program like DMI-TCAT or Gephy. If I had all the money in the world, I would have used a commercial service like Gnip, but since it costs upwards of $700 per month for access, that was not really an option for me.

Let me pause for a minute here to plug Bill Wolff's step-by-step guide to programs for Twitter data collection, which is available at archives.williamwolff.org. I would also call attention to danah boyd's

bibliography of Twitter research: www.danah.org/researchBibs/twitter, which includes various qualitative and quantitative studies that might be of particular interest at the outset of a project.

Next, I would like to pose a methodological question: Why code tweets? And how might we do it? For the why, I'll turn again to Alice Marwick. In the same 2013 article on Twitter research methodologies, she said: "In providing thick description of specific tweets and interactions, we were able to illuminate specific patterns of use that would have been difficult, if not impossible, to ascertain with a more automated method" (p. 118). Coding, close reading, and rhetorical analysis invites this kind of deep examination and allows us to better describe the lifeworlds under examinations when we think about digital communities.

In terms of the how, researchers might treat tweets like other kinds of writing or verbal data: there is verbal data analysis (with its t-units and emergent codes), close reading, and rhetorical analysis. I have taken both these approaches with Twitter data and find the narrative potential in close reading and rhetorical analysis an important counterweight to much of the quantitative social media research.

Finally, I ask an ethical question: Is a profile a person? Two related concerns underlay this question: for one, is informed consent possible and what does informed consent look like in these spaces? First, a note: most institutional review boards do not require consent for public messages, like those on Twitter. Beyond that institutional responsibility, though, what are our obligations to those whose words we examine? As a number of researchers note, obtaining informed consent can be difficult or counterproductive, especially in situations where the researcher's digital presence could interrupt the discourse community or when users operate behind pseudonyms (Beninger, Fry, Jago, Lepps, Nass, & Silvester, 2014; Woodfield, Morrell, Metzler, & Blank, 2013). On the other hand, using profiles without contextualizing their content, something that informed consent makes more likely, may lead to inaccurate or incomplete analyses (Zimmer & Proferes, 2014; Beninger, et al., 2014). I find these questions especially pressing for those of us interested in digital protests movements or harassment online. Both of these practices require balancing sometimes conflicting sets of concerns or allegiances.

Perhaps, then, I might reimagine this last, most pressing question: How do we balance privacy concerns with the value of critique?

## Rik Hunter: I Wanna Be "RAD," But What's the ROI?

In this presentation, I explore the value of the concept of "return on investment" (ROI) in considering Haswell's call for more support from our leading journals for replicable, aggregable, and data supported (RAD) research in composition. How has ROI become a deciding factor in the projects I pursue and the methods I use pre-tenure? Working in a teaching-intensive institution, where publishing expectations have (reportedly) risen over time, I explore an admittedly and deliberately provocative and mercenary-like attitude in suggesting ROI and methods and methodologies should be discussed with graduate students and newly-hired junior faculty seeking to earn tenure.

I love Shark Tank. I love seeing passionate people coming up with creative solutions to problems, making arguments for their creations, and talking about audience. The pitches are practiced and rhetorical, as are the products and services being offered . . . hopefully.

Beyond the rhetorical interestingness, another aspect of Shark Tank that I find fascinating are the discussions of *return on investment* (ROI). That is, it does not matter how well your product solves a real problem for people. If the time and money invested into it does not return a great enough profit, then you have to, in the words of Mr. Wonderful, "take the idea out back and shoot it."

Even more illustrative of the ROI mentality, Barbara Corcoran (2016), Shark and real estate mogul, recently told one inventor,

> This is what I'm really disturbed by, I think you're the type of person who is careful plodder, so I don't believe that you're the kind of entrepreneur that's really going to get the product out there … for sales.

Her statement—regarding a certain type of entrepreneurial ethos—aligns nicely with a talk given by Andrew Kirplani (2011), a software engineer and CTO at WorkHound. When he spoke to a group of

software engineering students at the University of Iowa, he argued that engineering students need to be more like business students. You've got to stop striving for perfection before releasing software because your software is only worth what someone will pay for it.

1. Business is about money.
2. Unreleased products don't make money.
3. Good is good enough.

That is, software engineers *are* in business selling time and effort to get a paycheck. Stop trying to make it perfect. See Windows VISTA for example!

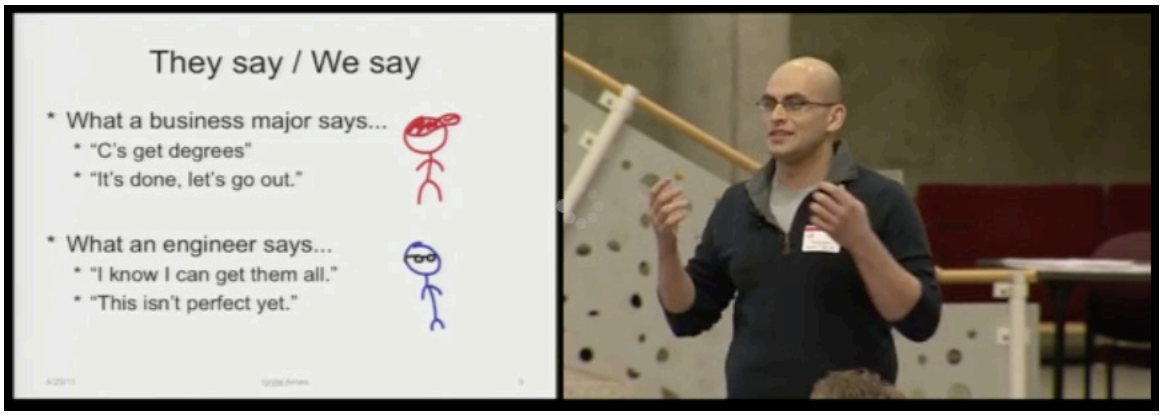


Figure 1. Screenshot from Andrew Kirplani's talk on the differences between Business and Engineering majors.

It may be a leap, but I think we can make strong connections between what we do and this idea of ROI. At the very least, it is a conversation we should be having, especially with junior faculty, with regards to our research methods, the size of projects, and how great a ROI we can generate on some projects over others.

And I ask this question as someone who has invested a lot of time into learning about a variety of research methods and methodologies. I have made efforts to be RAD. For instance, I took several methods courses during my doctoral studies. I did the two-week Dartmouth Summer Seminar and was designing a project that I ultimately think does not offer a great enough ROI. And, I have more recently had my mind blown by Bill Hart-Davidson and Ryan Omizo in their full-day workshop, Computational Rhetorics.

So, it is not like I am anti-RAD. There is a part of me that loves counting T-units.

But beyond my vacillating between my right-brained affinity for more-narrative methods and what we might call hard research, I am also quite aware of the context in which I work every day—a teaching-intensive mid-size regional with increasing pressure to publish.

In my 4/4 world, ROI has become a deciding factor in the projects I pursue and the methods I use because *some* of my literature colleagues admit to not getting comp-rhet scholarship. A bit hyperbolically, I am essentially adding publishing bullet points to my CV.

Perhaps that will change after tenure. For instance, in the recent *Chronicle* essay, "Failing to Dare Greatly," Rachel Toor (2016) wonders "if the current system and climate in higher education prohibits anyone but the comfortably tenured from being allowed to fail while daring greatly in their scholarly work."

"Conservatism," she writes, "is certainly the easiest path."

This conservatism, and the pressure to publish, seems to also create a problem in those disciplines that are necessarily RAD.

For example, just over a week ago, Daniel Sarewitz (2016), co-director, Consortium for Science, Policy & Outcomes Professor of Science and Society, School for the Future of Innovation in Society, wrote about how the pressure to publish makes it more difficult to find good research.

It is hard to imagine a place where research could be more RAD, and yet, poorly done studies, rushed to meet publishing expectations for tenure, is leading to worse scientific knowledge, not better.

In my context—and perhaps we can talk about all of your contexts—it seems that you could follow this probably cynical formula that I have created to increase your *scholarly ROI* (and maybe reduce your level of stress):

- Publish un-RAD research PLUS
- Publish good-is-good-enough research PLUS
- Publish it often PLUS
- Do not dare too greatly and be conservative EQUALS

Tenure, with a greater return on investment.

## Kerry Banazek: Objects to Think With vs. Objects of Study

This presentation invites consideration of the interplay between materialist philosophy and empirical research's relationship to materiality. I give a hyperbolic introduction to three traps researchers sometimes fall into when discussing ethics and research design. In particular, I suggest there is danger in accepting that what is at stake when conversations about philosophy and research methodology come together always has to do with epistemology, never ontology.

I spend a lot of time thinking about the question: What happens to the idea of ethics in the context of *new* materialist philosophies? And I like to claim: materialist conversations that have been going on for decades within composition and rhetoric—including the conversations about digital, data-driven research methods my co-presenters engage—can be used to ground that huge, unwieldy question.

Consequently, instead of detailing a research project, I am going to use my portion of this roundtable to belabor something most people in the computers and writing community probably take for granted: there is no such thing as a research project that is not also a philosophical project. We get an inkling of how true this is every time one of my co-presenters uses the word *ethics*. We can also associate this fact with the frequent winking that links a broad *material turn* that has swept across the humanities and social sciences with an *ontological turn* in rhetoric (a linkage that suggests the work of Scot Barnett, Casey Boyle, Diane Davis, Thomas Rickert, and many others).

And yet, projects that engage *explicitly* and *thoughtfully* with *both* philosophical and empirical traditions of writing and media studies remain rare. We could chalk that up to the fact no one can be an expert in everything and move on. But I am suggesting we might not want to do that. Especially if we care about realisms and materialisms, which empirical researchers tend to. To that end, I want to offer three snapshots of ways of thinking to help all of us think through what is going on underneath my abstract claims and what might be at stake.

### First

A snapshot of a nasty trap that can be triggered just by letting the words research, methods, and ethics get kind of near one another.

Someone makes the seemingly innocent claim: good research is systematic. Maybe that just means careful, we think. But then we wonder if systematic could be a synonym for empirical. Then, via a slippery slope we start imagining *empirical* methods are *the most* ethical methods available. If we do not like saying *ethical*, we can say instead, empirical methods are the most *rigorous* methods, but that does not change what is happening. We still get to be smug. This is realist, rationalist, Enlightenment thinking at its best.

### Second

A snapshot of a reaction that is its own kind of trap.

Perhaps because of the aforementioned smugness, it is oft-implied that there has always been a simmering conflict between empirical and non-empirical researchers in composition. This is a general claim

but also a claim Ellen Barton made explicitly in 2000 in an article questioning a kind of mass ethical turn in composition field research. The work she associated with that phrase drew on feminist ideas; it steered *way* wide of the above trap, emphasizing development of personal relationships between researchers and subjects. Along the way, it insisted that studies become ethical by having reflexivity and reciprocity built in.

That is mostly awesome, Barton notes, but adopting these values wholesale in a moralistic way pushes us to conduct small-scale research. By discouraging the kind of large-scale work where personal relationships might be impossible to build, it keeps us from asking certain questions and seeing patterns; that is problem enough, but moralizing of methods also forecloses conversations about how complicated ethical problems are. And it makes thinking about scale change nearly impossible. Basically—and these are my words not Barton's—being dumb about research methods makes us dumb about how ethics work, too. There is no such thing as a methodology that is *always* ethical.

## Third

Some quick and dirty claims.

Both of these traps are made more enticing when we try to pretend that we can have preferred methods without our philosophical opinions about the nature of the world leaking all over. More specifically, we get ourselves in trouble by accepting that what is at stake when conversations about philosophy and research methodology come together *always* has to do with epistemology, never ontology.

It is easy to see where that assumption comes from; ontology is concerned with being and existence. Epistemology is concerned with knowledge. Given the chance, many people would rename *ontology* as stuff that might be true but we can't know, so worrying about it is a waste of time. They would rename *epistemology* as stuff we know that can influence people's actions. Why would we not stick to the latter? Epistemology is not just the question: what is the nature of Knowledge-capital-K? It is also: how do we know [x], when [x] can be anything? And also, where is this knowledge instantiated? How is it distributed? Who knows [x]? Who does not? It encompasses all kinds of questions that *ought* to be asked during research design. The impulse to focus on related questions speaks to Jeffery Bineham's observation that concerns characteristic of the "epistemology debates" provoked by Robert Scott, which helped shaped the field of rhetoric in the 1970s and 1980s, remain central to the field but have been disassociated from the term epistemology, "translated into concerns for how rhetoric influences 'inquiry'" (p. 43). A quarter century has passed since Bineham made that observation, but if anything, it holds more strongly now because so many have forgotten that an act of translation even took place. Never having to say epistemology out loud means we never have to say we are avoiding talk about ontology, which makes it easier to get away with.

But when we bracket off ontology, we limit ourselves. Choosing to bracket ontology threatens to cut us off from the process of invention. If we have *stuff we know* on one side of a balance, and stuff that is unknowable on the other, then where does *stuff that is knowable but that we don't know yet* go? Where do we put speculations that are grounded and carefully composed but which have not achieved the status of fact? Where do we put things that our bodies know that we cannot explain? How do we develop strategies for living with new-to-us phenomena?

Moreover, if we bracket ontology, we lose the ability to be realists in any meaningful way. This matters to me because the big lesson I have taken from the weird, speculative, materialist philosophies that I spend a lot of time with is this simple old materialist idea—*that* there *is* a world out there means: we can get things wrong. And we do. All the time. We cannot help it. Not coincidentally, without crediting ontology explicitly, structuring exigencies can become an unnecessarily convoluted struggle. If you do not believe we can get things wrong, why would you bother doing research, especially empirical research that is driven by experience and data? Sure, the word ontology is pretentious and specialized, but the two questions that fill out the ontological realm are just: *what is there?* and *what is it like?* And humans, all of us, spend a lot of time fiddling with these questions. Which loosely implies my last and most contentious complaint—the act of bracketing ontology is part of what separates theory-minded-humanists from the rest of the world. For worse, not better.

# Kelsey Cameron: Uncovering Web Histories

In this presentation, I discuss strategies for accessing, collecting, and analyzing past iterations of contemporary websites. Using examples from a project on the evolution of sites for queer women, I argue for the importance of attention to history—and particularly histories of writing and revision—in approaching a medium often aligned with the present.

We often imagine that digital technologies fix problems of preservation. For example, a Dropbox ad promise that digital file storage will safeguard your things against the fragility of analog existence: "Any changes can be undone," it proclaims, and even deleted files can be "undeleted" (Ryan Singel, 2011, n.p.). This ad fed into a larger narrative equating the digital with perfect memory. As Wendy Chun (2008) glossed it: "Digital media, through the memory at its core, was supposed to solve...archival problems such as degrading celluloid or scratched vinyl" (p. 153).

The reality, of course, is less utopian: even as digital archives proliferate, the digital creates its own unique archival problems. The one I am going to talk about today has to do with web history—more specifically, with how hard it is to access websites from the past. This is an endemic issue, built into how the web works: As Steven Schneider and Kirtsten Foot (2004) write, "Unlike any other permanent media, a website may destroy its predecessor regularly and procedurally each time it is updated" (p. 115). We are aware of some of these acts of destruction: consider the outcry the last time Google retooled its logo, or when Twitter switched its favorite icon from stars to hearts—there is a felt, much remarked upon difference when popular sites tweak the images and interfaces we have grown accustomed to.

But eventually we forget the changes; on less trafficked sites, we may not notice them at all. Thus, elaborate histories of writing and revision disappear beneath a website's surface. In the rest of my time, I am going to detail some reasons we might want to get at those histories and some methods for excavating them.

So, first: why should we care about web history? There are a lot of potential answers here: interest in web design and its historical changes, insight into what kinds of web artifacts best endure, and access to particular community histories embedded in websites. My project, which is about the emergence of contemporary websites for queer women, comes out of this last impulse. Two sites—Autostraddle (https://www.autostraddle.com/) and AfterEllen (http://www.afterellen.com/)—were my main focus, and my goal was to track how they evolved: when they scaled up from small, individual projects to community spaces, and what precipitated those changes in scale.

Given the lack of institutional memory about queer things, artifacts like websites and online forums can provide traces of the past we have no other way of approaching. Thus, I see the update logs of AfterEllen and Autostraddle as windows into queer cultural history. So, now, on to the methods.

My first stop was the Internet Archive's Wayback Machine, a huge, public collection of historical web data assembled using Alexa Internet's web crawler (https://archive.org/web/). The Wayback Machine imagines the website as a unit of online history: you input a URL, and then you browse through the various iterations of it in the archive. This works better for some sites and for some projects than others. In my case, it was a useful chronicle of AfterEllen's development: the archive contained many snapshots of the site captured from 2002 to 2016, and by looking at them I could see its gradual shift from grassroots organization to corporate media structure after it was bought by Logo in 2006.

There are aspects of web history that escape the Wayback Machine's archive, however. In researching, I encountered three main limitations to its utility.

## Limitation 1: The Trouble with Robots

Sites that do not accept robots—that cannot be crawled—do not get archived. For me, this meant no access to OurChart, a lesbian social network run by Showtime from 2006–2008. Though this site was a focal point for queer female community during its lifespan, no trace of it appears using the Wayback Machine. Things that are not accessible in this way are not necessarily gone, however: I found images and a description of OurChart through Albertson Design, the company Showtime paid to create it. This

discovery speaks to how commercial and industry discourse can help fill in archival gaps: if a web artifact was commissioned, there are likely publicity materials about it posted somewhere.

### Limitation 2: The Trouble with Images

The Wayback Machine archives images irregularly, so the accuracy and completeness of a site's visuals are questionable. Because of the way it composes pages, it also sometimes makes *recreations* that never actually existed, combining images and content from different crawls into never-before-seen versions of a site.

### Limitation 3: The Trouble with Scale

While you can sometimes use links to move between pages, the Wayback Machine does not chart the topography of past cyberspaces. So, if you are interested in content clusters—say, what it looked like to Google lesbian social network in 2006—it cannot get you there. It offers access to individual sites but not their interrelations; you get little sense of what happens at scale and the modes of navigation available to past web users.

These limitations are specific to the Wayback Machine. Other projects are creating different sorts of internet archives that can accommodate different research questions: there are the Library of Congress's thematic MINERVA collection, national efforts in Australia, Denmark, and elsewhere, and—perhaps most relevant to this panel—the WebART project at the University of Amsterdam geared toward data-based humanities research. These efforts remind us that, though the Wayback Machine may be the most visible and most popular web historical tool, it is not the only one through which we can explore the internet's past. We should not let its structure dictate our research trajectories, for web history is not a single, static thing, but an evolving spectrum of approaches geared toward different ends.

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# Beyond Resistance: Plagiarism Detection Services and the Laboring Body

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Humans often turn to machines when human labor is "in crisis" (Herrington & Moran, 2001, p.220). Currently, teaching labor in higher education is in critical condition: contingent faculty—who are teaching over 75% of college courses—are stretched thin, overworked, overburdened with grading, and lack of resources and support from administration (Fulwiler & Marlow, 2014; Welch & Scott, 2016). To alleviate the strain grading imposes on contingent faculty members, administrators look to automated technology to mitigate some of the burden teachers face. One example of this is institutional reliance on plagiarism detection services, which can promote pedagogical practices that are unsound and antithetical to best practices in Rhetoric and Composition. Scholars within this field have a long history of arguing for discontinuing these programs. However, they continue to grow in popularity and pervasiveness; the field now needs to move beyond resistance to learn what plagiarism detection services can show researchers about students' and teachers' needs. The following outlines how and why scholars and teachers of composition have resisted these programs in the past, the labor problems that are tied up in automated assessment of student writing, and what scholars can learn from how educators are using these programs.

## Past Resistance and the Laboring Body

When I first started my master's degree five years ago, I remember feeling confused in first-year teaching practicum when my instructor mentioned something called a "plagiarism detection service" and cautioned teaching assistants against them. I did not understand what these programs were at the time, but I could not help but think, if there was a machine that would help back me up with student plagiarism cases, why would I not use it? After all, why would teachers not want to catch plagiarists?

As it turned out, there were numerous reasons to not use plagiarism detection services (PDSs)—programs that offer text-matching overviews of students' writing to signal to instructors when plagiarism may be occurring. Even then in 2012, many students had already been using PDSs since high school; now, popular PDSs (namely Turnitin) are even more pervasive and continue to be marketed for both higher education and K-12 ("Homepage," Turnitin.com, 2017). In 2012, Turnitin served approximately 10,000 institutions and graded over 20 million papers; today, they serve over 15,000 institutions and have collected 600 million (and counting) student papers ("Homepage," Wayback Machine, Sept. 21, 2012; "Feedback Studio," 2017). As early as 1999, scholars from rhetoric and composition have condemned the use of these programs, some of which have now expanded their services to offer automated assessment of student writing[1]. Such a long history of condemnation from experts of student writing makes it difficult to understand why these programs are accepted practice in the academy today (Howard, 1999; Marsh, 2004, Purdy, 2005; Zwagerman, 2008; Vie, 2013a, 2013b)—a tension that many of scholars in writing and rhetoric may still find puzzling.

In addition to individual scholars speaking out against PDSs, several respected organizations in the field have issued official statements that explicitly outline why teachers of writing should not support these programs (CCCC-IP, 2006; CWPA, 2003; NCTE, 2013). Concerns about PDSs include 1) copyright infringement and concern about safeguarding students' intellectual property; 2), surveillance and policing of student work; 3) privileging an autonomous, Western (English-speaking) author and thereby undermining collaborative processes 4) creating a "guilty until proven innocent" environment in class and 5) unreliability of the programs' assessments (Canzonetta & Kannan, 2016; Howard, 1999; Purdy, 2005; Vie, 2013a; Vie 2013b; Zwagerman, 2008). These statements, and much research on PDSs, highlight the ethical and pedagogical limitations of these programs.

In trying to understand why these programs flourish, Bill Marsh (2004, p. 428) and Stephanie Vie (2013a; 2013b) have suggested programs such as Turnitin are part of a "corporate solution" to fixing teaching problems, which are often labor problems. Humans tend to turn to machines when human labor is "in crisis"

[1] While I would argue PDSs are a type of automated assessment, the terminology refers specifically to programs that evaluate, grade, or score student writing.

(Herrington & Moran, 2001, p. 220). Currently, teaching labor in higher education is in critical condition: contingent faculty—who are teaching over 75% of college courses—are stretched thin, overworked, overburdened with grading. And lack of resources and support from administration (Fulwiler & Marlow, 2014; Welch & Scott, 2016). Vie (2013a) offers insight on why PDSs are used, despite scholarship that argues for disbanding them: material conditions of departments and the make-up of teaching labor necessitate machine intervention to cope with insufficient staffing or overworked teachers (p. 4). She traces out a useful hypothetical that outlines the logic teachers deploy when they support PDSs: "With all of these papers to grade, and given my desire for students to maintain academic integrity, how can I ensure this is the student's own work?" (p. 4). Teachers want to ensure academic integrity in their classrooms but are constrained by their working conditions. PDSs purport to offer a technological remedy for an otherwise incurable labor issue—one that is tied to preserving an institution's ethos and academic integrity.

## Beyond Resistance

I am not suggesting we stop resisting PDSs or other automated assessment technologies, but that we look beyond our disciplinary past with programs such as Turnitin; we need to start thinking about how automation may have potential in writing classrooms. Currently, scholars from the field have started this work by creating Eli Review, a peer-writing program that uses automation to facilitate quality feedback among students ("Eli Review"). To extend this work and continue having a role in designing the technology our students are subjected to, we should also look to programs we disapprove of to collect data on how teachers are using them in their classrooms. They can teach us about what students and teachers need from educational writing technologies as we start to enter conversations about design.

We should not use Turnitin, but we should look at how and why it has been so successful as we usher in a new technological era (Huws, 2014; Markoff, 2015). In Jeff Grabill's keynote speech at Computers and Writing in 2016, he argued that the most popular writing technologies currently on the market were not designed by actual experts of writing, and we have a chance to change that. Most importantly, this work addresses issues of labor as they relate to PDSs. As Christopher Dean says in *Con Job: Stories of Adjunct and Contingent Labor*, "I don't know if it's a dark secret, but people in comp, we don't tend to talk about labor conditions quite so much. We kind of need an action plan I think" (Fulwiler & Marlow, 2014, 5:53). In moving forward with these conversations, I argue that teaching labor in writing classrooms needs to be a central part of discussions as we consider how to work productively with machines in the coming years.

We need to reconfigure our resistance to poorly designed programs, such as PDSs, and not let our past observations overshadow the potential we have to work with automation in the future. We should and must continue to resist machines that promote writing practices that are antithetical to best practices in the field. However, our past strategies against programs such as Turnitin have not been particularly effective. While PDSs may not be as popular in departments of English and Writing, they are prevalent across the university, as is evinced by Turnitn's global popularity ("Community," 2017; Vie, 2013b). One reason that has not received adequate attention is that our universities continue to create untenable labor conditions and consequently, PDSs and automated writing assessment programs, however imperfect, appear as a welcome relief for overburdened teachers.

Given this, scholars in computers and writing need to not only argue that programs such as Turnitin constitute bad pedagogy, but that they point to larger labor issue connected to the teaching of writing across the university (Vie, 2013a; 2013b). Currently, the majority of instructors teaching college classes in the US are untenured and are working in unmanageable conditions (Welch & Scott, 2016, p. 5-6). If we consider why programs like PDSs and other automated assessment programs have thrived in higher education, we can better understand how to help contingent faculty members through more responsible and ethically sound uses of automation in our classrooms.

## How Are Teachers Using PDSs in Their Classrooms?

To collect data about how teachers used PDSs in their writing classes, I conducted a focus group study within the English department I worked at during fall of 2013. This focus group was comprised of four teachers

who had used a PDS prior to the semester of the study, and three teachers who were using a PDS for the first time that semester. To garner a wider purview of how PDSs were being used in writing classrooms across the country, I sent a survey to composition teachers on the WPA and TechRhet listservs about their experiences with PDSs. The results of the focus group and survey and showed what we can learn about teaching pedagogy from how teachers deploy PDSs. Further, the data supported Vie's (2013a) assertion that teaching labor was a significant factor in how these programs gained traction in higher education.

Data from this study suggested that in most cases, teachers were repurposing PDSs for more ethical use "as tools to teach citation and attribution, as authorities on plagiarism, as visual aids, and as self-checks for students. Instructors have been finding ways to use this technology to teach students about plagiarism" (Canzonetta, 2014, p. 49). Instructors in both the survey and focus group were subverting the program's intended use and tried to frame the PDS as a teaching tool, and as a self-check for students' citation practices--one instructor even used a workaround to keep the program from storing students' data. This tells us two things that can inform how we use technology in writing classes in the future: 1) writing teachers appear to be interested in technology that helps them teach citation practices (rather than a plagiarism catching tool) and 2) they often want students' intellectual property to be safeguarded[2].

As I mentioned earlier, when I was a novice teacher, I wanted support from a PDS if I had to talk to students about plagiarism. However, in conducting this study, I realized the programs do not actually offer plagiarism detection, rather, they are fallible text-matching services that cannot provide definite proof about plagiarism. Even though writing teachers were trying to use the tool ethically[3], they were still granting authority to a machine over their own expertise as writing professionals. Deferring authority to the PDS manifested when teachers described the PDS reports as "self-checks" for students—rather than asking the instructor for help with citation, the PDS was legitimized as a tool that could replace teachers' professional knowledge. Additionally, teachers also granted authority to the PDS reports by implying they provided "backup" if they had to approach a student about plagiarism, which also validated the tool as an accurate indicator of plagiarism. What does this tell us about plagiarism pedagogy and technology? First, plagiarism is a complex problem that is embroiled in contention—teachers should not have to fear approaching students about a pedagogical issue in their classrooms. Second, technology that helps teachers and students with complicated citation practices could be welcomed in writing classrooms, which would render plagiarism detection irrelevant. Last, an interesting insight that emerges from the data relates to labor and expertise: automation has the potential to deskill workers and replace them. If teachers are surrendering their authority to the PDS, it means we need to be careful about the technology we promote in our classrooms in the future to not let automation remove teachers from classrooms (Huws, 2014; Reeves, 2014; Zuboff,1988).

Data from the focus group repeatedly pointed to issues of labor. Instructors commented on the large amounts of papers they needed to grade and the race against time. In fact, instructors were using the language that reflected expediency and urgency in ways that were similar to the rhetorical strategies on the Turnitin website. In the fall of 2013, when this study was conducted, Turnitin's customer page read: "Faster, Better Feedback. Instructors indicate that Turnitin allows them to give better feedback in less time" (Wayback Machine, Nov. 27, 2013). One focus group participant, who was a teaching assistant with a heavy workload, echoed this rhetoric and claimed that the PDS "just cut down time for me… It definitely just cuts down time to know where [the matched text is] coming from and it's easier to tell students too that this is where it's coming from." In a similar vein, another teaching assistant also used these rhetorics of convenience and efficiency: "[The PDS is] just convenient for me and it's convenient for [students]. You know they can see [the report] if they have questions, they can answer them [on their own] ...It's convenient." Clearly, teachers thought the PDS saved them time because it eliminated low-order tasks (i.e., teaching students how to check

[2] In the survey, 62% of participants responded that they want the PDSs to prominently advertise the programs are storing students' work; 33% responded that the PDSs should discard student work after an allotted amount of time; and last, 29% said PDSs should not store student work at all.

[3] Rather than using PDSs to find and punish plagiarists, teachers used the reports to talk to students about attribution.

for plagiarism) from their workload. Students relied on the tool rather than just the instructor for information about citation, which freed up teachers' time for more high-order concerns.

The last finding I want to address is related to expertise: not all teachers who participated in the study were specialized in rhetoric and composition. Another aspect that connects with labor issues and PDSs concerns who is teaching writing courses[4], and these differences are significant in how teachers understand plagiarism. Participants had difficulty in defining plagiarism in the focus group, and there was inconsistency in the survey results as well. Most notably in the survey, teachers had different understandings about whether incorrect citation counted as plagiarism: "Most instructors (95.83%) believed intentionally using someone else's words, thoughts or ideas constituted plagiarism, but several (62.5%) viewed incorrect citations as plagiarism" (Canzonetta, 2014, p. 36). While this is an issue of education and expertise, it was also one of labor. The teaching labor we employ to teach first-year composition does not require a degree in the field (Vie, 2013a), which means teachers are going to have differing perspectives on writing values and pedagogy. The survey was administered to the WPA listserv and TechRhet listserv, but this does not mean all teachers who participated in my survey were from the field, or that they were not contingent laborers or graduate students. In the focus group, no teachers had degrees in rhetoric and composition, and they too struggled to define plagiarism as a group.

Going forward with how we engage with writing technology as a field, we need to pay attention to the material conditions teachers are working in and who they are, as to not "presume an audience of professionally secure teachers" and, I would add, to not presume an audience with shared educational backgrounds (Strickland, 2011, p. 5). This is especially important in the coming years, particularly when we consider seven of the twenty-four teachers who took the survey were *required* by their administrations to use a plagiarism detection service (Canzonetta, 2014, p. 49-50). If people who cannot refuse to use this kind of technology in their classrooms are going to continue to be subjected to it, we must consider what it means when the technology we do or do not design is forced on non-tenure track teachers who are not specialists in writing or rhetoric.

So why do PDSs endure despite writing experts' work against them? Vie explains why PDSs are problematic, yet persistent in higher education:

> In many ways, the desire for plagiarism detection services—despite our understanding that plagiarism is a deeply complex and contextual issue, despite our knowing that these services frequently fail to achieve their intended goal—reflects the working conditions of writing faculty in the academy today, particularly as more writing programs rely heavily on non-tenure-track or renewable contract faculty who teach multiple composition courses each semester, year after year. (2013a, p. 4).

The importance of this passage is twofold: Vie signals that composition scholars are not Turnitin's main audience, and that the conditions contributing to the program's success are not necessarily in our control. Vie also points to a testimonial video Turnitin used to host on its website: one professor claims that he can grade 120 papers as if they're 30 with the help of Turnitin. By that logic, one instructor could take on the workload of *four* teachers easily. Turnitin is thus marketing a "streamlined" grading process so he can get back to the real work he's meant to do: teaching. Rather than explaining grading as a rewarding and integral part of teaching, it is instead framed as a burden for overworked teachers. This logic is certainly appealing to administrators who are looking for ways to cope with budget cuts, course enrollment increases, and inadequate staffing.

In 2014, Turnitin charged universities $3 USD per student for access to their program, and it is likely that those prices vary depending on the capabilities the university wants the program to have (Fenton, 2014, p. 1). These corporate structures are making money from students' intellectual property. While $3 USD per student

[4] In Con Job, Cary Nelson, former President of AAUP suggests "the English and foreign language departments...pioneered exploitation hiring amongst the faculty. It's one of their real achievements that they can go down in history for. The casualization and deprofessionalization of the work force. (Fulwiler & Marlow, 2014, 4:09.)

may seem like a feasible solution to a writing and labor problem, Grabill (2016) argues that solutions that are perceived as free, or cheaper, or cost-effective come with costs we don't always consider:

> You're paying for your technology – you might be paying for it by making your students give up their personal data, or by giving up your own data, or you may be giving up technical or learning support. But you're paying for it, and one of the most insidious moves in educational technology is schools penchant for *free* on the surface, which costs them dearly downstream, particularly in the toll it takes on the lives of teachers. (n.p.)

Further, the widespread use of programs like these have effects on students after they leave the university: "Turnitin.com socializes student writers toward traditional notions of textual normality and docility" (Marsh, 2004, p. 427). As students become accustomed to freely handing over their intellectual property to these programs, as they learn to write papers to an algorithm, they could learn habits that lead them to be uncritical.

Current labor conditions in higher education are in crisis; if we do not address the exigencies PDSs and automated writing assessment programs purport to help, we risk being "sent out of the room" by corporate "stakeholders" (Herrington and Moran, 2011, p. 220). Thus, we need to reconfigure our resistance by analyzing how these programs are being deployed and how they "help" teachers and students. Doing so can inform how we can work with designers in the future on emergent writing technologies.

## Reconfiguring Our Resistance: How Can We Learn from PDSs?

In closing, I want to return to Turnitin's website and the rhetoric the marketing team deployed in 2012. In a series of testimonial videos the company used to host on its customer page, Summer Dittmer, an English Teacher at Bishop O'Dowd High School claimed, "There's no way for a human to do what Turnitin does." Stephanie Sanders-Badt, an Instructor in Health Sciences at Berkeley City College said, "I spend more time commenting on my students' work and less time organizing it." Jiansheng Guo, a Professor and Interim Associate Dean at California State University, remarks Turnitin helped him "cope" with 120 student papers as if they were 30. We cannot ignore the fact that some teachers are reliant on Turnitin, and that it helps them manage their workloads. Turnitin's website has since changed its rhetorical strategies to show more pedagogically attuned language. However, these excerpts from the past are pointing to issues that we cannot deny today: grading writing and teaching it is untenable without technological intervention in our current economic and labor conditions in higher education.

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