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Cyberfeminists at Play: Lessons on Literacy and Activism from a Girls' Computer Camp

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Cultural Assumptions and the Beginning of the Digital Mirror Camp

In an early advertisement for the Apple II, a white man sits at the kitchen table intent on his computing task, looking lovingly at his machine, while his wife cuts vegetables near the kitchen sink and looks lovingly at her husband. Although the computer itself is certainly dated—an historic relic when compared to today's mobile devices—the gender roles surrounding the use of these tools are admittedly less so. As demonstrated in the more recent Apple campaign where a cool, hip young man-as-Mac constantly one-ups an uncool, unhip aging man-as-PC, computers are more often than not portrayed in the media as a “guy thing.” Certainly, women are portrayed as users of technology in the larger culture, but as a number of scholars have suggested, the use of various technologies has had a “deskilling” impact, with women potentially “excluded from a knowledge of the overall process of which they are a part” (Murray 98) or stereotyped as a result of that use. Cheris Kra-maræ's classic collection *Technology and*

Women's Voices suggests that everyday technologies, from the telephone to the washing machine, have both helped and hindered women's material conditions. Yet male technology use is also stereotyped. Ask a group of students for an image associated with the term “computer geek,” and they'll describe the typical male student with glasses, alone with his machine. A Google image search for the term yields similar visual results, and additional male stereotypes appear when one does a similar search using the term “gamer.”

Given such stereotypes, it's no surprise that according to the American Association of University Women's (AAUW) 2000 publication *Tech-Savvy*, girls begin to lose interest in technology around the middle school years—and not only because of the perception of social isolation associated with computers. In their foreword to *Tech-Savvy*, the AAUW asks a compelling question: “What changes are needed in the computer culture to improve its image, repair its deficits, and make it more appealing to girls and women?” (iv). That such culture isn't as appealing to girls and women is perhaps most evident from statistics documenting the limited

numbers of women entering STEM areas. The AAUW's 2010 study, *Why So Few? Women in Science, Technology, Engineering, and Mathematics*, suggests that even though girls and boys have equal aptitude for math and science, the larger cultural assumption that boys are better at math than girls has a profound influence on girls' own self-assessment of their own abilities for STEM-based careers (Hill, Corbett, and St. Rose).

Equally significant are the connections between STEM and cultural diversity. As the *Why So Few?* study notes, "Students from historically disadvantaged groups such as African American and Hispanic students, both female and male, are less likely to have access to advanced courses in math and science in high school, which negatively affects their ability to enter and successfully complete STEM majors in college" (Hill, Corbett, and St. Rose 5). As the AAUW has suggested, the absence of women in such career paths is more than just a gender issue; it is, in fact, an economic issue as the United States shifts to a twenty-first century ecology in which information technology, nanotechnology, and biotechnology drive current national initiatives such as the president's Strategy for American Innovation, designed to create jobs and maintain the competitiveness of the United States in a climate of global economic development.

Ironically, despite the technological advancement that has led to an era of iPods, texting, and social networking, girls don't receive the same message about technology-based career options that boys do, and not all children have the same ubiquitous access to technology. Although the AAUW acknowledges that math and science fields are culturally presumed to be male-dominated while humanities

fields are presumed to be female-dominated, the question of change is one that all educators, especially feminist educators, should work collectively to address within environments that foster an ethics of care when introducing all students to technological literacy.

In her critical work "Cyberfeminism with a Difference," Rosi Braidotti claims, "cyber-feminism needs to cultivate a culture of joy and affirmation" (257). It is this very sentiment that led to the development of the "Digital Mirror," a four-day residential computer camp for girls in grades six through eight. While the planning for this summer outreach initiative takes months, the camp comes and goes quite quickly. During this short period of time, we attempt to introduce middle school girls to blogging, Web authoring, digital imaging, and video and audio editing. As co-facilitators of the camp, our collective decisions and experiences in planning and delivering the camp's curriculum have reinforced a number of lessons we have learned in our roles as cyberfeminist educators:

- There is a pressing need for educators—especially *female* educators—in the humanities to make themselves visible as savvy users and producers of digital technology in order to foster the same digital literacies in our students.
- Low risk environments facilitate playful sites within which girls and young women can take on the role of technological agent and redefine that role in gender-neutral ways.
- Connecting digital practices and personal interests is central to helping girls position themselves as digitally literate users and producers who have confidence in their abilities to use

technology and who can make purposeful decisions regarding their use of technology.

- The value of working with and for the community permits university educators to learn from their community and to use their theoretical and pedagogical scholarship to benefit their communities, a form of cyberfeminist activism.

Thus, this article will establish the relationship between cyberfeminist theory and the activist practices of the Digital Mirror Camp by articulating the goals of the camp, explicating the lessons we have learned from enacting our cyberfeminist principles, and finally, by outlining pedagogical benchmarks applicable to a variety of sites of mentoring and learning.

Camp Background

While there are many differences in our histories with technologies, most of us were not introduced to technology by women, nor were we taught to use the computer to its fullest potential until our adult lives. Our goal with the Digital Mirror Camp is to ensure that girls in the areas surrounding our university do not have the same experiences. We aim to encourage these young women to compose beyond their comfort zones. We hope for them to see computers as more than tools with which to socialize—yet to see digital composing as a collaborative endeavor. Most of all, we want to follow Braidotti's encouragement to "cultivate a culture of joy and affirmation" (257), where middle school girls can play and compose simultaneously. The Digital Mirror Computer Camp for Girls evolved as part of a Bowling Green State University Cyberfeminist Research Cluster of women faculty and

graduate students from what were initially a range of disciplines: English, American Culture Studies, Digital Art, and Computer Science. We chose the name "Digital Mirror" to emphasize the camp's mission to help girls "reflect" upon the meaningful social role new media and Web 2.0 tools play in their literacy and communication practices with friends and family. The name also fosters the girls' awareness of the power they have, through digital composing processes, to create and control their own online representations as counterpoints to images online that may attempt to objectify women or portray girls as being potential victims in Web-based spaces. Rather than obscure the cyberfeminist elements of the camp, we use the name of the camp to help the girls understand our rationale behind its creation in terms they can relate to and that we explain in our opening day icebreaker activities.

Now in its fifth year, the four-day residential computer camp is designed to help girls in grades six through eight, an age level that the AAUW has targeted as crucial for intervention to develop functional, critical, and rhetorical literacies. Because of our suburban campus location, it initially seemed that the population for the camp would be composed of the white middle-class children of college professors. To broaden the camp's impact, we have developed several recruitment methods: sending flyers and other promotional materials to the superintendents of urban, suburban, and rural school districts in northwest Ohio for distribution in schools; advertising in local newspapers and online community forums; sharing information with colleagues across disciplines and on other regional campuses who have both professional and

social contacts; and promoting the camp through organizations such as the state and local AAUW branches. Perhaps our most successful recruitment strategy was the “word of mouth” communication from parents, who shared the camp information with their daughters’ friends or who, based on their daughters’ positive experiences, chose to send other siblings or recruit cousins as well. Finally, we have attempted to involve the girls themselves in the recruitment process, specifically through the collaborative work they have done on the camp website aimed at both a camper and a parental audience, stressing the educational benefits, safety, and social elements of the experience.

As the camp has evolved, we have worked with girls from the urban areas of Cleveland and Detroit as well as from the rural areas of northwest Ohio and southeast Michigan. As a result, our camp demographics have become increasingly diverse to include African-, Hispanic-, and Asian-American participants. Additionally, to promote participation among diverse socio-economic classes, we deliberately keep costs low via grants and donations: a twenty-five-dollar fee covers lodging, meals, a field trip, a t-shirt, and camp supplies. As Linda Stepulevage, Flis Henwood, and Sarah Plumeridge conclude in their study of a same-sex IT learning environment, a “women-only setting must take the diversity of the women into account: their ethnicity, their previous IT educational and work experiences, their class, and their ages, along with their expectations of the course and the delivery of the course itself play a role in this shaping” (278). Such diversity is important so we do not reinscribe stereotypes about what all girls and women do and don’t do with technology or what they do and don’t

know about technology. We have often found that while some girls do bring different access levels and skills to the camp, most have not had the opportunity to work in a sustained way in girl-centered friendship groups or safe spaces called for not only by the AAUW’s reports but also by cyberfeminist scholars.

Indeed, in her well-known article “Where is Feminism in Cyberfeminism?” Faith Wilding states that a definition of cyberfeminism should be a “fluid and affirmative” definition meant to “create crucial solidarity in the house of difference—solidarity, rather than unity or consensus—solidarity that is a basis for effective political action” (par. 13). While the Digital Mirror Camp curriculum does not teach campers lessons of feminist history, the work that co-facilitators undertake allows for the type of shared learning Wilding argues is necessary for building and sustaining feminist movements across time and generations. This type of learning is enacted yearly as new co-facilitators join the camp and its previous co-facilitators, whom Wilding would call experienced practitioners, discuss camp curricula.

Through direct instruction, hands-on experimentation, and mentoring in a range of digital tools, the girls attending Digital Mirror develop a functional Web portfolio that moves beyond the production of digital artifacts (see Figure 1). The camp presumes that literacy in the twenty-first century is, in fact, technological and relies upon a range of modalities beyond the printed word that is all too often privileged in the academy in general and by English teachers in particular. The camp also attempts to foster the awareness of technology as a tool that fosters self-expression in verbal, visual, and aural form; thus, the camp provides opportunities for

the girls to compose reflective narratives that situate the role of technology in their academic and social lives, from texting, to cellphone use, to the increased role of social networking forums such as Facebook and Twitter. Rather than presume, however, that the only thing feminist educators need to do to facilitate literacy and resulting empowerment is to provide targeted learning experiences for girls, we recognize that such focused experiences can help participants develop a shared understanding of the technological possibilities and constraints in their own lives and then to articulate those experiences through multimodal composing processes in ways that move them from the position of users of technological spaces to designers of them.

Lesson 1: Seeing and Being Tech-Savvy Users and Producers

Campers' parents often express surprise upon discovering the co-facilitators of a computer camp are all members of an Eng-

lish department. As teachers and scholars of composition, however, we co-facilitators come to the camp as literacy sponsors who believe an important part of our role is to challenge the myths that both women and individuals from the humanities are either incapable or unwilling to have and to encourage digital literacies. The Digital Mirror's curriculum recognizes the historical exclusion of women as producers and even participants in privileged social spaces. Writing of this historical exclusion in "Then and Now: Gender, Code, and Literacy," Claudia Herbst explains, "The mechanisms of exclusion that have traditionally prevented women from writing persist today and hinder women from claiming their mental share in the realm of technology" (345). In order for women to claim space in the technological realm, they must develop digital literacies that provide them opportunities to create space rather than simply join it. But even before that can happen, women need to have an interest in technology. Because the AAUW has identified culturally prescribed stereotypes about gender and



Figure 1. Screenshot of the home page of a Digital Mirror camper's Web portfolio.

a lack of self-confidence as two primary reasons girls lose interest in technology (Hill, Corbett, and St. Rose), we present ourselves as visible role models and mentors who are rhetorically literate users of and producers of technology in order to disrupt the expectations that portray computers and digital literacies as a boys-only club and to foster these same digital literacies and rhetorical capabilities within our female campers.

We see digital literacy not as a monolithic whole but rather as layers of literacies and literate practices that interact and inform one another. This conception is grounded in Stuart Selber's work *Multiliteracies for a Digital Age*, in which he identifies three types of literacy—functional, critical, and rhetorical—that are essential for the digitally literate person. Functional literacy, quite simply, entails basic but necessary skills such as knowing how to open or save a document. Critical literacy is the ability to analyze the roles and functions of technology, software, hardware, etc., in society. Rhetorically literate users have the ability to create with technology and are reflective producers of technology capable of effecting “change in technological systems” (Selber 182). The camp curriculum seeks to support and expand all three literacies for the campers because, as Selber argues, “students who are not adequately exposed to all three literacy categories will find it difficult to participate fully and meaningfully in technological activities” (24). In order to encourage young girls to claim their place in the realm of technology, the Digital Mirror enables us co-facilitators to present ourselves as women who possess all three of these literacies and who foster these multiple literacies in the campers, also.

For their final project, we ask the girls

to create a Web portfolio that requires all three of Selber's digital literacies. This portfolio, developed in Dreamweaver, showcases all the work the girls do at the camp in a single digital space. The girls include images they have modified in Adobe Photoshop, audio tracks they have created in Apple's GarageBand, slideshows they have composed with VoiceThread, and links to their newly created blogs. In their work with Dreamweaver, the girls design the form, aesthetic, and content of their Web portfolios without the use of templates. In “The Design of Web 2.0: The Rise of the Template, The Fall of Design,” Kristin L. Arola claims that in order to empower composers, we must encourage them to move beyond template use and into an area of Web design not constrained by predetermined interfaces. Additionally, without templates, the girls are more likely to begin to see themselves as producers and not merely as users of technology. This decision about camp curriculum builds on Kathleen Blake Yancey's “Made Not Only in Words: Composition in a New Key,” where she argues that using templates means “Students will not compose and create, making use of all the means of persuasion and all the possible resources thereto; rather, they will complete someone else's software package: they will be the invention of that package” (320). Encouraging design, then, fosters the digital literacies Selber identifies as essential to any twenty-first century composer, empowering them as the inventors—not the invented.

While the content of the camp's curriculum focuses primarily on the girls' burgeoning digital literacies, the delivery of this curriculum highlights the identities of the co-facilitators as tech-savvy women. By modeling our own technological know-how,

we hope to counter cultural assumptions that women lack technological expertise. We demonstrate our expertise through explicit yet active instruction. When the curriculum introduces a new composing tool, one or two of the co-facilitators present a brief, informative overview. During this time, campers watch as tech-savvy women model the use of a specific tool on an oversized projection screen. After this brief instruction period, the girls are shown an example of a product created by this tool before they are given time to play and compose with the tool themselves.

In addition to modeling ourselves as tech-savvy users of and producers with technology, we also seek to empower the girls to act as savvy users and producers in their relationships with one another. It's important to us that, as co-facilitators, we seek to help the girls accomplish *their* goals and achieve *their* visions for *their* portfolio projects. While we offer our assistance and expertise when asked, we also allow and strongly encourage the girls to teach each other. This approach is consistent with recommendations from the AAUW (*Tech-Savvy*) that girls develop friendship groups and buddy systems to develop their computer skills and dispositions in safe, supportive spaces. Much of the time, this collaborative learning happens naturally because the campers outnumber us (4:1), so rather than wait for one of us to be available to help them, they simply ask one another. In addition, in the summer of 2011, almost half of our campers were returning for a second or even third year. The relationships between new and returning campers allow the returning girls to inhabit the role of teacher, and this can be very empowering for them.

Collaborative learning also allows the campers to draw on their individual

knowledge and experiences to create a shared community of knowledge, returning again to Wilding's call for shared learning among women. Because the girls all come in with different levels and types of knowledge about digital technology, collaborating with each other and with the co-facilitators models the ways knowledge is created in the larger digital world through exchanges of information and the building of relationships. Collaborative learning also provides a model for the ways in which people combine a variety of identities, knowledges, and experiences to compose in digital spaces. Finally, collaboration and modeling allow the girls to see themselves as part of a girl-centered space where women and girls can create both on their own and together.

Lesson 2: Empowering Female Technological Agency through Play

In 2006, research undertaken by Mitchel Resnick at the MIT Media Lab showed a positive correlation between play and computer literacies. Resnick argues that "playful activities can help children understand and make full use of new technologies" (3). Thus, having every girl leave the camp with a polished Web portfolio is not necessarily the desired outcome of the Digital Mirror. Our second lesson has taught us to focus on facilitating experimental and playful girls-only environments in order to give our campers the opportunity to establish identities for themselves as technological agents (as Blair, Dietel-McLaughlin, and Graupner-Hurley discuss). Encouraging girls to play with technology is another way we facilitate a camp

that promotes subversions of the inequitable gender representations of tech-savvy individuals in popular media.

Cynthia Selfe's 1999 investigation of technological advertisements argues that even with technological advances, women are projected into familiar patriarchal identities, such as "the seductress, the beauty, the mother" (315). She further argues that the rigidity of such "over-determined social formations . . . makes radical change hard to imagine and even harder to enact—especially when technology is involved" (316), and as a result, we often "re-construct for ourselves those traditional narratives that tell the same old gender stories over and over again" (321). Yet Guy Merchant argues that the screens of digital communications technologies are scenes of identity performance, constructing the experience of "identity" as multiple and fluid. So, seductress, for instance, is not a fixed or even a solitary identity. Merchant articulates that "A play identity [in particular] allows us to enter possible worlds and to experience alternative perspectives" (303). At the camp, by enacting a pedagogy of play, we encourage campers to experiment with multiple ways of being on the screen—such experimentation is necessary if we are to experience and promote digital spaces in gender-fair ways. So while every computer program introduced at the camp is supported by direct instruction, the most important aspect of the camp comes when campers are encouraged to get their hands dirty and play with a variety of digital tools during sessions of unstructured studio time. This kind of experimentation, or play, engages campers in acts of resistance against a cultural narrative that promotes technology as masculine territory, as well as against statistics that por-

tray technology-rich fields as sites of male expertise.

By encouraging play in a technological environment, we are simultaneously encouraging campers to develop, experiment, and play with their identities as tech-savvy young women. Our campers embrace a playful and experimental attitude toward technology. Take, for example, one camper's first blog entry, "The Beginning," during the summer of 2011: "This is my very first blog and post for my blog...I don't know how I feel about it but I know it's something new, and I'm willing to try. ☺"

Here she admits that blogging is something new for her, but at the same time she adopts an open mind and a willingness to "try." This example illustrates one of the many ways that play figures into the camp. It is not about mastering every technology that the camp introduces. It is about experimenting, trying things out, and learning how to be in digital spaces as a female. Merchant argues, "It is widely accepted that play is a vehicle for learning and provides a rich context for emotional, social, and cognitive development" (312). Consequently, at the Digital Mirror Camp we use play to empower the girls to recognize themselves as users and producers of technology—people with agency in increasingly computer-mediated contexts and in the face of technologically deterministic narratives that have often denied women such agency.

In our experience, and likely due to the emphasis on experimentation and play, campers often create what Wilding has called the work of "cybergrrl-ism," which involves using irony, parody, and humor to create "new subjective and cultural feminine representations in cyberspace" (par. 6). An example of this cybergrrl-ism is the

blog Sarah¹ created and titled “icreated-generalbutler” (see Figure 2). The name of this blog was Sarah’s way of making a joke out of a mistake she made. As one of the first camp activities, each girl was asked to interview a partner and then introduce her partner to the rest of the campers. When it was Sarah’s turn, she began introducing her partner, and while informing the rest of the campers about her partner’s favorite actor, instead of saying “Gerard Butler,” she misread her own handwriting and announced that her partner loved “General Butler.” Of course, a few girls immediately snickered, but Sarah quickly recovered, laughed at herself, and then created a blog purposely named to draw attention to the public mistake she had made. Both Wilding and Braidotti note the importance of irony, parody, and humor in cyberfeminist rhetorical activity, and as demonstrated by Sarah’s blog, we argue

that a low stakes playful environment encourages girls to adopt these tactics in order to renegotiate what Selfe identifies as over-determined social formations.

Lesson 3: Conceptualizing Literacies beyond the Classroom

While the Digital Mirror Camp takes place in classroom space, on a university campus, and is facilitated by members of the university community, we want the girls to begin conceptualizing their digital literacies as more than camp or classroom practices. We aim for them to consider their digital literacies as transferrable to their lives outside the camp computer lab. In “Girl Power in a Digital World: Considering the Complexity of Gender, Literacy, and Technology,” Bronwyn Williams suggests that one way to help girls make this connection is to draw connections among

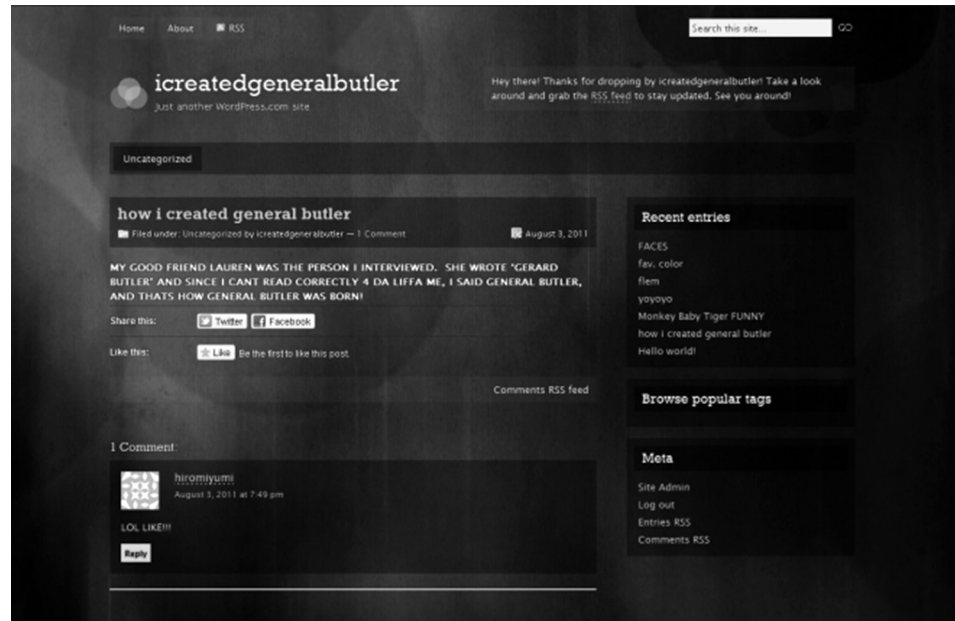


Figure 2. Screenshot of Sarah’s blog.

literacies, literate practices, and culture. By making this connection, girls can see how their attitudes and expectations are shaped by the world around them and how they in turn can re-shape the world around them. We help our campers connect the things they learn and the work they do at camp to their interests, hobbies, and even potential jobs. When they see their literacies as transferable, they can begin to move from being mere consumers or users of technology to being active producers who see ways they can make technology work for and in their lives. Based in the need to make literacies visible and relevant beyond the classroom, our third lesson recognizes the importance of encouraging campers to see their literacies as not only classroom practices but also practices that can actively shape the world in which they live. Helping campers see literacies as something they can adapt to their own purposes is a key part of producing and supporting counter-narratives that confront the dominant narrative of girls and women as simple users of technology.

Many campers include a “when I grow up” narrative in their blogging or digital literacy reflections. This narrative expresses their awareness of the transferability of their digital literacy skills. The camper’s narratives reflect an understanding that their lives beyond school will include jobs that likely revolve around the use of computers. For example, while playing interviewer and interviewee for an iMovie project during their second year attending the camp, one girl asked another, “When you get older, do you think you’re going to use technology for your job?” The interviewee replied: “Yeah, I will. I’m planning to be an engineer of some sort, and they need computers to download blueprints

and sketches, and they need to download what parts they’re going to need, what tools they’re going to need, and so on and so forth. So, a computer would be vital in an engineer’s career because if you didn’t have a computer, you would basically have to carry around a hundred papers with you in your pocket, and that’s practically impossible.”

Another of the girls who returned for the 2010 camp juxtaposed Photoshop manipulations of pictures on the homepage of her digital portfolio with her aspirations of becoming “a 3D animator and graphic designer.” These campers reflect an understanding that to participate in the work world beyond the classroom, they will need to be tech-savvy. Eliciting and encouraging these types of responses is in line with the recommendations from AAUW’s *Tech-Savvy* that we as educators make students aware that *all* jobs, not just those usually associated with computers, are becoming increasingly technology-based and thus require some level of technological literacy (xii).

In addition to connecting future work and digital literacies, other campers connect their digital literacies to their social lives, and specifically to their hobbies. Many of the campers use their interests in anime, animals, sports, music, and other subjects as the basis for their portfolios (see Figure 3). In some cases, they have also shown us that they already use digital technology to think about and present their hobbies, as is the case of two girls in 2011 who, upon arrival at camp, already had YouTube channels where they had archived videos of themselves horseback riding. Both girls used this interest in horseback riding to shape the design and content of their digital portfolios. By framing their portfolios around a hobby

or interest, campers have the ability to express their ideas about a particular topic in both content selection and design. They are able to actively produce narratives about both their interests and themselves in the design and content choices they make. Equally important, they are able to become participants in the larger discussion of the topic by creating spaces where their voices can be heard. The creation of such spaces gives the girls an opportunity to see how digital technology can help them actively shape the ways people think about or understand a topic that is important to them based on how they present it in their Web portfolios.

Digital Mirror seeks to encourage the campers to be active, involved producers of their own online identities. In the spirit of play, campers are asked to play with technology as users, critics, and producers. But they are also encouraged to play as young women. As Williams notes, our responsibility as educators is not to find ways to help young women use computers like boys

do, but rather to “help them build on their strengths to find new, creative, and feminist ways of designing and using computers” (304). By helping them see and produce such counter images and narratives, the experiences of Digital Mirror camp allow campers to see computers as more than “information machines” and instead as “a new medium for creative design and expression” (Resnick 1). The ability to actively construct narratives, both about themselves and their interests, is central to building and supporting campers’ rhetorical literacy, which, in turn, is crucial to being active producers of technology.

Being able to see themselves as active producers of technology connects to being able to see literacies as transferrable beyond the classroom because doing so demonstrates a recognition of literate practices and literacies as re-shapable in other contexts. Encouraging campers to see their digital literacies as transferrable beyond the classroom or camp environment is just one way we might encourage

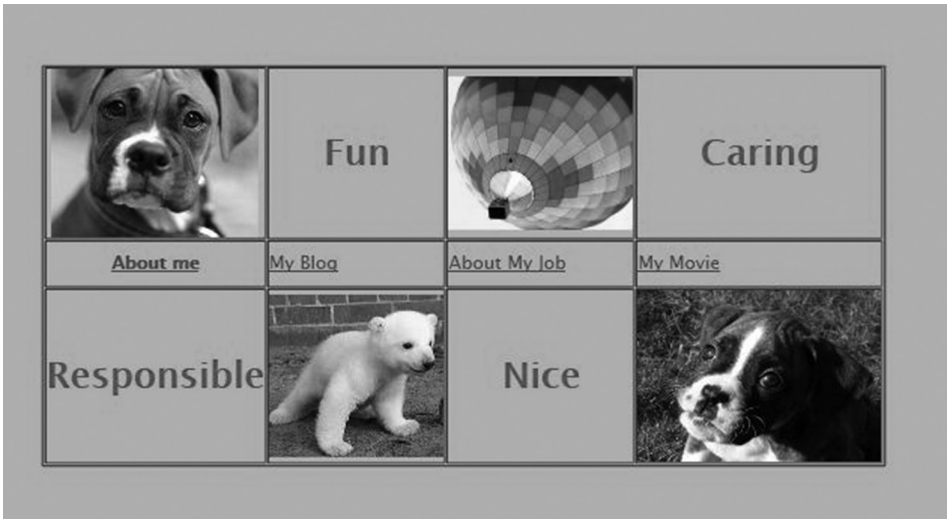


Figure 3. Screenshot of a camper’s Web portfolio, showing her interest in animals.

young women to see themselves and their abilities as not only belonging in the increasingly technological and computerized world in which we live but also as actively contributing to and shaping that world. Our campers' experiences bear this argument out: for example, one girl's work in the camp led her to develop a skill set and portfolio that enabled her to gain a job. This camper was unable to return to the Digital Mirror Camp the following summer due to the acquisition of this job; however, her younger sister came in her stead. The implications of this are clear: digital identities and skills are not *only* personally valuable—they can and do inflect other aspects of our identities and our lives. Creating spaces where women and girls can construct counter-narratives about identity more generally, and technology use more specifically, are key to allowing them to situate themselves as active producers of technology. As such, seeking ways to encourage girls and young women to reflect upon and develop their digital identities and skill sets can lead to positive changes that reach into their lives beyond the classroom.

Lesson 4: Connecting Campus with Community

The final lesson that we take from Digital Mirror is that working with and for the community is a way for feminist practitioners to enact their values in ways that have meaningful, lasting effects not only for their communities but also for the practitioners themselves. Working with members of a local community is one way for university educators to bring their scholarship, pedagogy, and theory to the community, creating a fruitful opportunity

for feminist praxis—that is, connecting one's principles with material practice. The Digital Mirror is a hands-on experience for the faculty members and graduate students who participate in facilitating the camp in a way that echoes Wilding's call for activist projects in cyberfeminism—it allows us to enact our cyberfeminist principles in a way that serves our community. The camp gives us a sterling opportunity to take the skills we have developed in our own coursework and scholarship and teach them to a set of girls who may or may not have had prior access to such training, letting us use these skills in ways that step beyond our own classrooms and research and amplify our connections to the broader community. Through Digital Mirror, campers are able to take advantage of the resources available on a university campus—resources such as well-appointed computer labs and expensive software packages, which are often not as easily accessed by members of the community who are not directly connected to the university. This opportunity breaks down some of the boundaries that keep university educators on their campuses, separated from their communities, and allows community members to benefit from the resources of the university campus in a directly tangible way. In this case, the girls who attend our camp develop new skills and projects that exhibit those skills, which they can then turn to other ends, from pursuing a job to persuading family members to recognize the utility of computers in their daughters' lives.

The camp also allows us to develop deeper ties with one another, with the support staff on campus, and with the community that surrounds the university. As mentioned, the Digital Mirror Camp is an interdisciplinary project that brings

together faculty and graduate students from a variety of departments on the university campus, allowing us to work together on a project to serve our community and pool our talents. This interdisciplinary effort furthers our understanding of other disciplines' skills and preoccupations, while allowing us to connect over mutual interests and concerns. In addition to this, the camp has relied on support from the university's technological services as well as various community members who donate physical resources (such as flash drives and notebooks) to our project. In this sense, Digital Mirror underlines the importance of partnership between campus departments that might otherwise have relatively little contact, and between campus and community organizations and businesses. Furthermore, Digital Mirror has been supported by funding through grants from organizations such as the AAUW, which is another example of how building and fostering connections and partnerships between like-minded organizations and projects benefits the program in question while enriching the experiences of the participants and furthering the goals of those organizations and projects.

Finally, the relationship between the campers and the facilitators is not unidirectional—the learning and service is reciprocal. In years past, the campers have designed and built the Digital Mirror homepage and contributed to the camp blog, which are material ways in which the campers have given back to us. However, and perhaps more significantly, while we are teaching the campers about Web design and image manipulation, the girls are teaching us as well. One of the most striking lessons we have learned from the campers themselves is how rich

and varied their perspectives are. The girls who attend the Digital Mirror are full of energy and enthusiasm. Though it may be easy to smile at the enthusiasm of pre-adolescent and adolescent girls, working with them during the days of the camp reveals that they think and feel very deeply about the subjects of their portfolios, which leads them to focus intently on those portfolios. This intensive focus and enthusiasm is inspiring and heartening, and results in final products that may not be wholly completed but still show enormous amounts of promise. In addition to this, the girls also bring a willingness to be flexible and experiment with their portfolios and the software they are using, often in ways that are extremely creative and startlingly effective. Their willingness to step outside their comfort zones to try new programs and develop their skills serves as a lesson to us as camp facilitators: sometimes we can learn the most when we are willing to be playful.

Yet there are some very real limitations to a project like the Digital Mirror Camp. For instance, in order to ensure access, we would like to keep the camp costs low (twenty-five dollars), but working with nonrenewable grant funding makes the sustainability of the camp touch-and-go. Additionally, a four-day camp is a whirlwind, and while the girls get a lot accomplished, we have not yet established an effective way of following up with the girls post-camp to continue nurturing their relationships with technology and digital identities. Lastly, the context of the camp environment is unique, especially when compared to a traditional classroom space, so we conclude with a series of feminist pedagogical benchmarks as a way to broaden the lessons we have learned in our very context-specific camp

for feminist teachers in a variety of “classroom” spaces.

Conclusion: Feminist Pedagogical Benchmarks

As Faith Wilding concludes, “While young women are just entering the technological economy, many older feminists are unsure how to connect to the issues of women working with the new technology, and how to go about adapting feminist strategies to the conditions of the new information culture” (7). Wilding’s point is especially relevant to the rise of social media, as Radhika Gajjala and Yeon Ju Oh’s recent collection *Cyberfeminism 2.0* attests. Similarly, the Digital Mirror Camp has also addressed Wilding’s concern about connecting and adapting through a series of strategies that bridge the gap between feminist theory and cyberfeminist pedagogical action. Such recursiveness is a significant step toward achieving technological equity for women in both academic and community spaces. Below we present a series of benchmarks that, based on the lessons we have learned as cyberfeminist educators, help sustain a discursive relationship between theory, practice, and political action when designing similar academic outreach projects.

Our first benchmark is **creating and sustaining reciprocal mentoring models**, thus recognizing the ever-changing status of technology and the importance feminist theory places on reciprocity. Within our own camp, we enact these relationships in several ways that could also prove possible across various contexts. First, the girls often inhabit the role of teacher, explaining and modeling for each other how to use various software and programs, drawing on their own experiences and exper-

tise. Additionally, not only do we teach the girls through the use of demonstrations and one-on-one help, but they also teach us, helping us to understand how girls are using or would like to use computers. The relationship between co-facilitators also enacts the reciprocal mentoring model in that we are each in different places in our personal and professional lives, including our own technological expertise, and we therefore find ourselves continuously shifting back and forth between the roles of mentor and mentee. An additional way to nurture reciprocal mentoring models in feminist classrooms that we have not explicitly enacted at our camp would be to share instruction time with students by assigning technology demos, where groups of students collaborate to introduce a specific application of a program to their peers.

Creating learning environments that value process over product is our second benchmark, one that recognizes the importance of low-stakes learning, experimentation, and play—especially in technological literacy learning. Throughout the camp, as noted previously, we mark success by experimentation. For example, the goal is for participants to experience playing with a program like Dreamweaver rather than to create polished websites (though indeed some of the girls do create impressive materials). While many classrooms and curricula are institutionally constrained and grades are very real concerns for teachers and students alike, the use of assignments like technology demos, digital literacy narratives, and the application of blog spaces for in-process reflection are practical ways to value learning as process in an environment like the Digital Mirror Camp as well as in a variety of feminist classrooms. Designing assign-

ments and curriculum in ways that value learning as a process not only disrupts hierarchical structures that privilege final products but also broadens the opportunities for thinking with and through technological spaces, which is especially important if we seek to empower girls and women to form relationships with and through technology that are not mediated by gendered stereotypes.

Our third benchmark stresses the importance of **connecting identity and practice**. As the second benchmark suggests, we want to empower young women to form relationships with technology, and doing so involves not only learning how to use the technology, but also learning how we, as women, are shaped by and can shape the technology we use. Therefore, we suggest that it is crucial for girls and young women to have opportunities to practice as active producers of technology, rather than simply users or consumers. Central to being active users is the opportunity and ability to make purposeful and informed choices about what technologies to use and how to use them. For this reason, we encourage the use of smaller, scaffolded activities that form the basis for some larger project that is designed at the girls' discretion. The camp's digital portfolio serves this function for us. We understand that the girls may not incorporate all the software they learn into their final portfolios; some may focus more on "Photoshopping" pictures, others on creating audio tracks, and others on Web design. By allowing the girls the opportunity to make choices as designers and creators, these projects give them the opportunity to see how the choices they make about and with digital technology shape their identities. Thus, this benchmark is less about asking the girls to walk away with

the mastery of tools and more about helping them develop the confidence to make purposeful choices about how they use the tools to represent themselves.

Just as the Digital Mirror Camp bridges the gap between theory and practice, our final benchmark promotes **bridging the gap between university and community, feminist teacher and community member**. To reach this goal, we encourage collaborating across borders, be they borders of discipline, rank, or community (academic or extracurricular). This benchmark not only allows us to create productive relationships, but it also allows those outside of the academy to see what feminist teachers do. When so many popular depictions of feminists present an outdated and often entirely misleading picture of feminism (just turn on Rush Limbaugh's radio show to hear references to "feminazis" or visit *Maxim's* 2003 "How to Cure a Feminist" for examples [58]), this final benchmark aims to model girl-positive collaborative relationships with members of a variety of discourse communities. It is these collaborative relationships that we hope will make feminism (and cyberfeminism) visible. We see this final benchmark as essential to our particular cyberfeminist project, as without collaborations that cross borders, the camp would not exist. And more generally, working with members from other departments provides opportunities for feminists of diverse disciplines to learn from one another while also learning from the community members that populate a diverse range of feminist "classrooms."

As our opening paragraphs suggest, stereotypes about what women do and don't do with technology continue to be reinforced in the larger culture, despite our best efforts to counteract those perceptions. Thus, in attempting to level the

technological playing field, the Digital Mirror Computer Camp has encouraged participants to reflect upon their experiences and share their own stories about the significant role technology plays in their digitally-mediated literate lives. By privileging the voices of girls in these digital spaces in an environment of experimentation and play, the camp extends the work of feminist rhetoricians (Glenn) and girlhood scholars (Finders, Mazzarella) who have long understood the importance of cultivating and validating women's literacy practices as they evolve from listeners, readers, and consumers to speakers, writers, and producers. In this way, such feminist action research has resulted in an interdisciplinary and intergenerational collective designed to foster a more inclusive digital culture for future generations of women.

NOTE

1. Pseudonyms have been used to protect this camper's privacy.

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