



Beyond "Dudecore"? Challenging Gendered and "Raced" Technologies Through Media Activism

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This article follows media activists trying to transform the media system by broadening access to technology and skills. These activists intend for technological engagement to be compatible with a range of social identities, but their hopes are not always achieved. It is difficult to cultivate forms of technical affinity and expertise not associated with White masculinity, though the activists are more successful with regard to inclusion of women than of people of color. This case study provides an opportunity to analyze how social and personal identities may shape, and be shaped through, interactions with communication technologies, as well as the ramifications of technologically-oriented activism in the wider array of efforts to secure a more democratic media environment.

This case study of contemporary media activism follows a group of activists whose work foregrounds communication technologies and technical practice. They emphasize technical pedagogical activities intended to transform citizens' understandings of media technology. They apply a DIY¹ (do-it-yourself) ethic to technical work and other forms of expertise, notably political decisionmaking, to serve a broader goal of facilitating technical and political engagement through "demystifying" technology.

Their project of demystification and broadening access is significant along two interrelated lines. First, the activists' attitudes towards communication technology are interesting because they understand their interactions with technology as part of a wider social movement to effect change (Hess, 2005); this study describes technological activism in the media democracy movement, focusing on how locally constituted technical practice is understood to effect structural change in the media system. Second, the activists' encounters with technology illustrate the persistence of normalizing structures in people's relationships with technologies, even among people who hope to subvert norms (Bromley 2004; Dunbar-Hester 2008); this study

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therefore also demonstrates how social and personal identities may shape and be shaped through interactions with communication technologies (Douglas, 1999; Eglash and Bleecker, 2001; Kvasny, 2005). This study is important precisely because of how these issues are intertwined in the actors' use of communication technologies for activism. In their pursuit of technologically oriented media activism, this article argues that the activists inadvertently import issues of social structure and identity that have formed around ICTs. Thus, in spite of their explicit objective to broaden political participation, the linkage of technical participation to political participation may unintentionally limit the range of social identities to which the full range of media democracy goals appeal.

According to Carroll and Hackett (2006), "Media activism contests not only the 'codes' of communication but the entire complex of social relations and practices through which the codes are produced and disseminated; and this contestation is matched by the construction of democratic alternatives" (p. 95). Rather than focus on media content, these activists seek an alternative media structure. This sets them apart from groups emphasizing the lack of diversity in media representations (see Baynes, 2007), teaching media literacy or advocating for policies to mandate a range of political viewpoints. In contrast, these activists expect that providing alternative structures for media distribution, with significant citizen access to media production, will correct multiple perceived shortcomings of dominant media institutions. Yet, as Napoli (2009) writes, "These categories are far from mutually exclusive because structural change frequently is presumed to lead to content change" (p. 391).

Specifically, the activists promote hands-on work with technology, focusing on low-power radio stations and community wi-fi networks.² They use qualities associated with "geekiness"—technological affinity and expertise—in a way that promotes egalitarianism and inclusion (Dunbar-Hester, 2008; Eglash, 2002). They deliberately open decision-making to non-experts and challenge hegemonic White masculinity. As Butler (1993) and Barad (1998) claim, discursive and material factors are of paramount significance in how gender identities are constructed. Likewise, scholars of critical race theory assert that "Race and races are products of social thought and relations. Not objective, inherent, or fixed, they correspond to no biological nor genetic reality; rather, races are categories that society invents, manipulates, or retires when convenient" (Delgado & Stefancic, 2001, p. 7). This articles anchors the categories of race and gender to the insights of post-structuralist theorists of social identity who seek alternative explanations for the persistence of categorization and inequality, rejecting the notion of fixity or inherence in social identities; however, even while the construction of difference should be rendered as problematic, this article does not suggest that social identities are endlessly fluid. It argues that encounters with communication technologies are material, bodily, and discursive sites where social identities and social structure may be reinscribed and/or resisted. Though the activists explicitly intend to expand and change gendered and "raced" expertise, they experience difficulty. Their efforts are hampered by historical patterns of inclusion and exclusion with regard to technological affinity and expertise.

Background

In the United States, a movement promoting citizen access to the airwaves emerged during the 1980s and 1990s (Brand, 2004; Coopman, 1999; Walker, 2001; see also Horwitz, 1997). In 1978, the Federal Communications Commission (FCC) ceased granting noncommercial, low-wattage licenses to not-for-profit educational and community groups, and people subsequently took to the airwaves in "electronic civil disobedience" (Soley, 1998; Walker, 2001). The Telecommunications Act of 1996 removed significant restrictions on radio station ownership, further stoking activist efforts to secure the rights of small-scale community broadcasters and drawing attention to media consolidation more generally. When the FCC experienced difficulty enforcing regulations against unlicensed broadcasting, in the late 1990s, then-Chair William Kennard considered reinstating some form of license option.

In 2000, the FCC initiated the legal designation of "low-power FM" (LPFM), noncommercial stations that operate at 100 watts or less (reaching at most only a few miles from the site of transmission). However, due to a 2000 limitation placed by Congress (acting at the behest of the broadcast lobby), LPFM stations became virtually impossible to license in U.S. cities (see Spinelli, 2000; Riismandel, 2002). Rural areas were favored, where the spacing requirements between LPFMs and fullpower stations could be met. By early 2009, over 800 LPFMs were on the air.³ Advocates remained committed to changing legislation to allow LPFMs in more population-dense areas, but had not succeeded as of early 2009.

This article is about an activist group that formed as a pirate broadcasting collective in Philadelphia, PA, in the mid-1990s, which was raided and shut down by the FCC in 1997. They subsequently re-focused their efforts towards advocacy and technical assistance to community groups, forming the nonprofit Pandora Radio Project in 1998. In addition to their successful efforts to see LPFM implemented (with allies including organized labor, church groups, civil rights groups, and other advocates (McChesney, 2004)) in 2004, Pandora won a historic lawsuit against the FCC opposing proposed rulemaking to allow further telecommunications consolidation. In the early 2000s, Pandora considered whether and how to expand their mission to "free the airwaves" to include not only radio but Internet-based technologies, especially community wi-fi. Both LPFM and community wi-fi activism are examined in this article.

Media activism is sometimes viewed as an end in itself, but often people drawn to media activism are involved in other social justice issues, and then identify media access as a key component of work on any issue. McChesney, founder of the advocacy group Free Press, claims that "whatever your first issue of concern, media had better be your second, because without change in the media, the chances of progress in your primary area are far less likely," a paraphrased quote McChesney attributes to former FCC commissioner Nicholas Johnson (McChesney, Newman & Scott, 2005, p. 11). The media activists in this article consider their work to occur against the backdrop of a social movement for media democracy and a wider social

change agenda. While activists with left politics are the subject of this article, groups across the political spectrum opposed media consolidation.

Research Activities and Methods

This article represents a small portion of a large ethnographic project on FM radio activism, centered on the activities of Pandora and groups with whom they interacted (actors' names and the main field sites are pseudonymous.) Pandora's activities are unique, in that they combine advocacy with hands-on technical work. Given that these activists are a mediating social group who necessarily interact with, speak for, and persuade or resist members of other social groups, they are a meaningful site at which to observe the intersection of political agency and technological engagement (Dunbar-Hester, 2009). As a volunteer in Pandora's office in 2004–2005, the author accompanied them on trips to Washington, DC to observe meetings with lobbyists, FCC members, Congress members and staffers, and members of community groups involved with or seeking LPFMs (and community wi-fi networks, the latter in Philadelphia and Chicago). Trips also included radio station "barnraising" events, three in the United States, and one in Tanzania in East Africa. In 2005–2006, full-time participant-observation was replaced by observing special events, including workshops given by Pandora on community wi-fi and proceedings on municipal wi-fi in Philadelphia's City Council. In all, the author conducted 29 semi-structured interviews with activists, lobbyists, policymakers, and citizens, as well as informal interviewing in settings such as workshops and barnraisings. The ethnographic fieldwork was supplemented with documentary research.

Gendering, Race, and Technical Practices: Men, Women, and Electronics

Wajcman (1991) argues that masculinity takes historically and culturally specific forms, and that there may be multiple versions of masculinity in effect at any time. Gender is a relational system, and thus a masculine gender identity may be reinforced vis-à-vis a feminine one, or vice versa (Butler, 1990; Lerman, Oldenziel & Mohun, 2003). Gender categories should not be taken as monolithic; neither traits nor competencies are always feminine or always masculine, even in a particular moment in time. Technical competence is often a key component of masculinity, and in order to maintain male dominance over new and unfamiliar kinds of machinery, men willingly adapt and modify ideas about masculinity.

Douglas (1999) writes of the historic shift from a physically powerful masculinity to a technical masculinity. As Douglas (1987) and Haring (2006) demonstrate, a culture of masculinity grew up around electronics (radio) tinkering earlier in the twentieth century. Oldenziel (2001) and Kleif and Faulkner (2003) argue that men's masculinity and the pleasure some men attain in technical domains are mutually reinforcing projects of technical and gender construction. Extending these analyses

to the media activists' interest in hands-on technical work and tinkering, it is evident that the social structure contributes to differences in familiarity and comfort with electronics hardware between women and men. Men are more likely to already possess electronics skills; both the historical legacy of electronics tinkering as a masculine pastime and the gendered differences in individuals' personal backgrounds contribute to such disparities (Dunbar-Hester, 2008). However, this study does not attempt to account for such differences; instead, only to address the activists' attempts to confront and transform these differences.

One of the activists' most significant events is the radio station "barnraising," held approximately twice per year, in which volunteers and activists build a new low-power radio station. Barnraisings and other technical workshops are seen as spaces to teach technical skills that empower both women and men; implicitly, this is seen as a radical opportunity for women and others who have traditionally been excluded from technical expertise. The activists are committed to the ideal of gender equality, and they combat the notion that technical skill should be equated with masculinity. The article argues that the activists' primary strategy is to attempt to eradicate the association of certain skills with particular genders (both technical⁴ and domestic skill sets, though they give far more attention to technical), or to decouple the skill set from the gender identity. This has a range of consequences in practice.

The barnraising is a visible, public site at which the activists enact their beliefs; Goffman (1959) might call the barnraising a "front stage" event. It is a site where quotidian relationships with technology and other people are suspended in order to reflectively "try to show others what they are doing or have done" (Schechner quoted in Turner, 1987, p. 76). The "Pandorans" reflected carefully when selecting people to lead work at barnraisings; they deliberately recruited people with both the technical skills and the "right" attitude about teaching and sharing expertise, including women with "kickass" skills who were not staff of the Philadelphia-based group. Though Pandora allocated funding for each barnraising to subsidize travel for volunteers, it was challenging to get the "right" people. The following email, sent by Brian, a Pandora organizer, shows that even by offering to buy her plane ticket, they could not bring Robin, an expert woman who often volunteered, to the 2005 Urbana, Illinois barnraising:

nooooooooooooooooooooo! my heart is mostly broken by my continued failed attempts to get non-dude engineers.

---- Forwarded message from [Redacted]> -----

From: [Redacted]>

Subject: unable to attend

To: [Redacted]>

Date: Tue, 1 Nov 2005 15:25:20 -0800

i am sorry [brian]. i can not attend.

i feel that i need to work that weekend ...

light a soldering iron for me some time during the weekend.

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:[ [robin] (Email, Brian to office listsery, 11/1/05)
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Brian described, in detail, the challenge he faced in trying to make sure that barnraisings were attended by "techies" who shared Pandora's radical vision, which he felt was at odds with a more traditional engineering "culture of exclusion" (see Hacker, 1990; Marvin, 1988). He said:

Part of [the barnraising model] is really challenging the engineers themselves to make the change.... I think finding non-traditional techs and engineers is really important. I have been striving for so long to find a pool of younger women engineers, technicians who are people of color and women. It's so easy to find white guys to do this stuff. Look at me, I'm a white guy. I'm not in any unique situation, I'm one of millions of white dudes who went to engineering school, I just happen to have more of a lefty attitude than most of them.... And there's folks like [Robin], she's fantastic, a perfect example of the type of people I want running the tech side of things at a barnraising, she's a good teacher, she isn't as stand-offish, exclusive, the approachability is much better with her than a lot of the other [male] engineers ...

[But] it's tough because we have to balance people who can get shit done with people who can teach... [Robin] is learning a lot more, and she can do most of it, but there are still a couple of things that are just too crazy [technically difficult]. It's a struggle to find people who can do everything. It's really hard [to find women]. (Interview, 7/5/06)

To the Pandora organizers, one way to decouple technical skill from White masculinity is to use skilled women, and hopefully people of color, to teach novices. Brian stops short of essentializing engineers who are women or people of color for having greater native inclination to teach along the lines of Pandora's vision, but speculates that because of their status as engineering "outsiders" might be more receptive towards Pandora's goals: "A lot of engineers and techs who are people of color and women basically know how to teach people already—well now I'm making assumptions—but there's more of a culture of inclusion already, instead of the old-school engineer way which is a culture of exclusion, the expert attitude" (Interview, 7/5/06). The author interprets this to mean that, for Brian, while there may be an added benefit to women or people of color in learning from teachers with similar backgrounds, it benefits all volunteers to learn from "non-traditional" teachers, versus from "White guys" like himself. Brian hopes to disaggregate technical expertise from gender or racial identities; this constitutes a part of Pandora's aspiration to transform the traditional social structure that couples technical affinity and expertise with White masculinity.

In a 2005 Pandora newsletter, a volunteer praised the barnraising model for its explicit efforts to share skills but also criticized the barnraising he had just attended for what he called its "dudecore" tendencies. He wrote, "the volunteers just seemed to fall back on what they were used to—men doing carpentry and computer

work, women doing organizing, logistics, and support" (Dougherty, 2005). Pandora responded in the newsletter: "try as we might, [we] obviously [have] varying degrees of success reigning [sic] in the dudecore tendencies at our technical projects" ([Pandora] Radio Project, 2005, p. 5). Like the volunteer, this barnraising (held outside of Nashville, TN, in 2005) was the first the author attended, and the gendered division of labor was striking, especially because it contrasted with the idea of barnraisings as advertised by the activists. In discussing this topic, they acknowledged that this had not been their best effort. Over time the author noticed variability in the skill/gender distribution; a 2006 barnraising in Oregon had a number of expert women doing studio, transmitter, and antenna work, whereas in Nashville these tasks were mostly done by men.

Other volunteers also shared impressions of the work and teaching structures at barnraisings. Clara, a 31-year-old woman whose day job is in computer networking, said:

I've been sensitive to Pandora's sensitivity [about gender and technical work]. [Brian] makes no bones about saying "It's a dudefest. We need more women." [But] I feel sheepish that I'm not cooking. I feel an odd responsibility. I definitely feel like I'm extra visible and like I should be extra visible. I understand what I have to contribute by virtue of the fact that I have a nice pair of tits ... [laughter] ... you know what I mean. Chicks with Ethernet cables, there's a certain inherent value in that, even in just seeing that, especially for people who aren't used to seeing it.... There are times when I feel a little weird, because, yeah, I'm a woman, yeah I'm in tech, I don't feel more qualified than anyone else in anything I do, and I'm lucky that I've been able to contribute what I have ... but I feel kind of self-conscious about my skill level in comparison to my visibility. (Interview, 6/27/06)

Thus for Clara, technical skills made her feel extra-visible in the barnraising setting, like she was a part of Pandora's display of their activist vision, someone who clearly displayed a feminine identity ("nice pair of tits") coupled with technical expertise ("chicks with Ethernet cables" embodying the two together). Clara reinforced Brian's statement that there is an "inherent value" in women using and teaching electronics. But at the same time, she felt awkward about not helping in the kitchen, where she was equally competent and where, she recognized, much labor was also needed (Interview, 6/27/06). While Clara was well integrated into the "techie" role, she was still reflective and self-conscious about it.

As these volunteers note, the necessary barnraising work gets done, by whoever steps up to do it. In practice, this means that much of the non-technical work is done by women and unskilled men. It is a constant, active challenge to have technical work and teaching equally performed by women and men, and to prevent unintended exclusionary behavior. Brian described attempts to dissuade people with strong technical skills from monopolizing technical work or discouraging neophytes from learning. He specifically mentioned that sometimes Pandora had difficulty working with local volunteers, as opposed to the volunteers they bring in, because they were sometimes less attuned to Pandora's vision for skill-sharing and the barnraising model. He said, "usually it's local techs who are trying to consolidate

power . . . while I don't explicitly say 'Stop being a patronizing asshole.' I have tried to communicate that'' (Interview, 7/5/06).

Clara also felt that, at least amongst the media activists, the unequal distribution of technical skills was not primarily due to sexism, but to a shortage of women willing to learn and display technical skills. She said, "The framework is there, ready for women like me to jump in, this community is ready for women with good tech skills, and they are who I most get along with. Unfortunately I keep finding kick-ass men" (Interview, 6/27/06). Like Brian, she feels that part of the problem is a shortage of women with technological competence; she feels that the feminist men's attempts to be inclusive towards women are genuine and mostly adequate (Digby, 1998). As a woman not intimidated by technology and with a high degree of technical expertise, she may feel differently than neophytes (women and men), who are potentially derailed by competitive, "stand-offish," or masculine displays as they try to engage with technology (Dunbar-Hester, 2008).

"Race-ing" (New) Media Technologies

As noted above, LPFM licenses were nearly impossible to obtain in urban areas. Partly due to their desire not to exclude cities from their activism around media issues, Pandora activists became interested in the relevance of community wi-fi networks to their organizing mission. While they deem FM radio as appropriate and desirable for community groups, one activist said in 2006, "We care about radio, but we believe in appropriate technology. If wireless is the best way to support community and social justice needs, we need to get them that. If people can't get radio, they need this now instead" (Fieldnotes, 2/23/06).

In 2005–2006, Pandora developed workshops to teach people about community wi-fi. Volunteers and staff activists (often women) taught attendees about public use of spectrum as well as how to build directional wi-fi antennas out of coffee cans ("cantennas"). Staff activist Ellen said:

The cantennas [are] an organizing tactic. It's an easy piece of technology to build. It's a useful piece of technology. In the ten or twenty minutes it takes someone to learn to use a cantenna, you learn RF, you learn DIY sharing of a public resource, like public airwaves stuff, you handle a drill, you handle a soldering iron, you have them handle a component, you learn about cabling, it's a fucking barnraising in a ten-minute package, it's the best tool for that. (Interview, 9/26/06)

She makes reference to the material linkage to radio when she says that a cantenna workshop teaches people "about RF," as well as when she talks about teaching people to use soldering irons and become familiar with cabling. But the main significance of the cantenna workshop is that it is "like a barnraising" in that it combines Pandora's technical and political mission, raising awareness about citizen ownership of, access to, and use of the spectrum. It is also explicitly hailed as an

appropriate organizing tool because it is more portable and less involved than radio barnraisings, so it can be shared with more people.

In contrast to their work with radio, the activists were stymied in their efforts to promote wi-fi as transparent, utilitarian, and community-oriented (Dunbar-Hester, 2009). They had difficulty translating their vision for community wi-fi networks as being more than just Internet connectivity. Municipalities and nonprofit groups often build wi-fi networks to help "bridge the digital divide." Yet "digital inclusion" as it is commonly understood is not identical to the activists' interest in wi-fi networks. Emphasizing basic computer literacy and using connectivity primarily to download material, or for running one's own business website, is, to the activists, a paucity of vision (see Meinrath, 2005; Sandvig, Young & Meinrath, 2004; Tapia, Maitlin & Stone, 2006). It is also paternalist; notions commonly expressed by lawmakers and some nonprofit organizations tend to imagine the "users" as wards of the state (Dunbar-Hester, 2009; see also see Kvasny, 2005). Rather, Pandora and other activists favoring community wi-fi see it as extending beyond the provision of Internet service; instead, their interest flows from their vision of wi-fi networks as platforms for community media. Stated differently, activists envision the use of these networks for sharing community media created by citizens. They emphasize uploading content, multi-directional transmission, not merely downloading news, entertainment, forms related to services, etc.

Because they viewed community wi-fi as "appropriate" for cities, Pandora consulted on a project with Chicago-based nonprofit organization Neighbors for Access to Technology (NAT). NAT built a small wi-fi network consisting of a few nodes, which served a neighborhood community center and a few homes. NAT hoped to expand this network into a larger community wireless network in an economically disadvantaged, largely African-American Chicago neighborhood, Larch Park. They hoped to draw on Pandora's expertise leading hands-on workshops, potentially even holding a "wi-fi barnraising." However, after arriving in Chicago for meetings, the Pandora activists felt uneasy. They tried to get a feel for the Larch Park residents' reactions to the proposed wi-fi network. Some were enthusiastic, and a person who worked closely with residents said that "This is a chance [for residents of Larch Park] to not just keep up with society, but to advance beyond it, people want to use this to start businesses and for education" (Fieldnotes, 3/1/05). This is an allusion to the historic exclusion of African-Americans from technological decisionmaking and technological "progress" (Fouché, 2006, p. 642; see also Kvasny, 2005). The Pandora organizers were concerned that the residents' interest stopped short of their own agenda, which included social change through community media, not merely Internet connectivity (Fieldnotes, 3/1/05). They also had reservations about collaborating with NAT, an organization they felt differed from their own in significant ways. One organizer later recalled a colleague's reaction: "He didn't like the [NAT] people ... he didn't trust them, he didn't like the money that was there ..." (Interview, 9/26/06). A Pandora intern privately referred to NAT's attempt to bring Pandora onto the community wi-fi project as "a liberal clusterfuck," by which he meant that he felt that NAT had good intentions but was not managing the project

well, including exhibiting an attitude that could be construed as heavy-handed or patronizing towards Larch Park residents—an attitude from which Pandora members wished to distance themselves (Fieldnotes, 3/05).

Related to the issue of money and technology coming from outside the community, some neighborhood residents were concerned that this neighborhood investment might not solely be in the interest of the current residents: A historically poor neighborhood in a desirable location with well-developed communications infrastructure might be a target for gentrification. Fouché also notes some historical reasons why some African-Americans may have an adversarial relationship to technology, particularly that introduced by Whites (2006, p. 647). Thus some residents were disquieted by attempts by a group of (largely White) people from elsewhere— NAT was not based in Larch Park, and Pandora was not even from Chicago-to "improve" the neighborhood. A NAT staff member said, "There will never be a time when it will be okay for hundreds of people who don't live in [Larch Park] to come volunteer there" (Fieldnotes, 3/1/05). This made Larch Park a troublesome site to plan a wi-fi barnraising. Ultimately Pandora participated in a smaller project to build network nodes in the neighborhood, and worked with a resident to write a grant to purchase equipment for a community Internet radio station, which was consonant with Pandora's community media agenda. They did not conduct a wi-fi barnraising in Larch Park, nor had they conducted a stand-alone wireless barnraising at the time of this writing.

The Larch Park situation generally concerned the Pandorans, who do not project an image as (White) paternalists. For them, cultivating technological affinity and expertise around media technologies in non-wealthy citizens and community groups was a means of leveling power and promoting egalitarianism and pluralism. The activists' liberal democratic vision promotes the inclusion of as many groups as possible, especially those lacking some forms of social or economic capital. However, this is a difficult area for them: while they are critical of White privilege and paternalism, their organization and volunteer base tended to be largely comprised of an educated, White segment of the population.

These media activists' work (and invocation of racial categories) should be read as being a dialogue with the contributions of critical Whiteness/antiracism (Hill, 1997). To the activists, allying media activism with antiracism is not an afterthought; as noted elsewhere, many people drawn to media activism began activist work on other social justice causes, but then identified media justice as the linchpin of their advocacy (Carroll & Hackett, 2006; Dunbar-Hester, 2008). Thus, some media activism can be seen as a means to an end in a larger struggle against inequality. That said, media activism is not immune to problems faced by other social movements, which struggle with inclusion, representation, and differences in privilege and positionality between members of the movement (see hooks, 1989, on the adverse effects of racism on the women's movement). The activists are extremely careful to frame their activities as self-consciously antiracist work promoting cultural exchange, as opposed to a group of (mostly) White activists providing a commodity or service to a less-privileged "other." A Pandora organizer discussed their interna-

tional work, which has included building radio stations in Nepal, Tanzania, Kenya, and Guatemala:

Historically the U.S. has been seen as a patronizing force, NGOs [non-governmental organizations] come in [from outside] ... But we're learning from [community groups] in other countries-we're resource-rich materially, but how are they organizing? ... We're not "giving" to them, because in the U.S., the organizing strategies and ability is in its infancy. (Fieldnotes, 3/16/05)

The organizer also stated, "Privilege allows us to not realize that [media] is a life and death issue for other people. As a White activist group, we're in solidarity they can use [community media] to do it themselves, we're really privileged to do the work we do and have the impact we do" (Interview, 2/16/06). Reflecting on the early organizing work done around LPFM, a Pandora organizer mentioned the story of Mbanna Kantako, an African-American early hero of the "microbroadcasting" movement, who broadcast without a license from a public housing project in Springfield, IL in the 1980s (Fouché, 2006; Shields & Ogle, 1995). The organizer said that Kantako's story was one that filled him with passion, and that while he wanted to capitalize on this story to provoke an enthusiastic reaction, he did not want to exploit Kantako: "I told his story over and over, like 200 times, in the most respectful way I knew how" (Fieldnotes, 2/24/06). Ellen reflected:

It's easy for [Pandora] to work in rural communities, where we're a big deal when we come in, where they want us to be there. To be honest, it's easy to work with other nonprofits. It's easy for us to work with other white groups. It is. We can work well with hippies. We've done a great job of it in the past. I'm impressed that we've been able to work with [Latino] farmworker groups.7 I think that that shows a lot of growth ... (Interview, 9/26/06)

The activists' attention to "difference" and its potential to stir up tensions recurs in their work with LPFM and wi-fi. One activist also said that privately, the group struggles with how much to put in the foreground issues of race, class, and gender. The activist said that occasional experiences forced the organization to reflect on these topics and spurred internal dialogues, which were positive, even when the conversations were difficult, or made them confront ways in which the organization needed to improve (Informal conversation, 6/28/07).

However, the perceived need to address the fact that they were a White group consulting about providing services to a group with whom there was a perception of difference was not the only issue for Pandora in the Larch Park case. Though a vexing issue on its own, it is one with which Pandora has routinely grappled. In the case of wi-fi, this issue was compounded because the grassroots demand for community wi-fi as understood and promoted by Pandora was not as obvious and well-formed as that for FM radio; the Larch Park residents' desire for connectivity was typical in this regard. In general, the activists resisted being perceived as paternalists; one said, "We can't push [our agenda] on anyone. We're patient because we have to be, we can't do things before [community] groups are ready" (Fieldnotes, 2/6/05).

Conclusions

There is a methodological asymmetry in these accounts. Although the article addresses the varying degrees of success Pandora has had in challenging established patterns of race and gender in their technical work, they have been more successful in combating a gendered division of expertise than a "raced" one. It is impossible to uncover reactions from people who were not there, or to events that never occurred, and thus the evidence about participants' feelings about the challenges to gendered expertise is more substantial than that about race. In the latter case, the activists' voices and expressions of intent dominate. It is also worth noting that Brian explicitly invokes race and gender together in his discussion of the activists' attempts to present meaningful alternatives to a technological expertise that is both White and masculine. Thus the separation of these categories in this analysis may do a disservice to the activists' agenda. However, the media activists are arguably more successful in combating the gendered division of labor, which means it is analytically useful to distinguish between them.

Eglash's (2002) work on geeks/nerds, race, and gender presents geekiness as a gatekeeper for technocultural access. To Eglash, the Whiteness and masculinity embedded in geek identity may restrict non-Whites or females from embracing technological affinity or expertise; members of these "other" categories may improvise or innovate different strategies for attaining technocultural access or identification, to varying degrees of success. In the case of these media activists, technological affinity and expertise, tenets of geek identity, are intended to be universally accessible; in fact, a main lesson of barnraisings and other workshops is that technological affinity and political awakening can occur without concomitant technical expertise (though increasing technical expertise may serve to heighten political conviction or technological affinity). The article argues that one strategy the activists use is to try to decouple skills from gender identity, thus making technological access a gender-neutral proposition. The media activists clearly intend for technological engagement to transcend other identities people construct and experience, such as race and gender. Yet their hopes are not always achieved. It remains challenging to cultivate technological affinity and expertise across historically and culturally constructed boundaries of gender and race. Eglash suggests that geekiness may itself contribute to the activists' lack of headway in terms of inclusion of non-Whites. Even among activist and antiracist people, the association of certain forms of affective technological engagement with Whiteness may be entrenched.

Yet the community groups Pandora assists are not restricted to mainly White groups. As such, the activists' role as mediators of technology becomes additionally complex when issues of race and paternalism are considered (see Eglash & Bleecker, 2001; Eglash, Croissant, De Chiro, & Fouché, 2004; Fouché, 2006; Tal, 2000 for explorations of appropriation of technology by marginalized groups). When the end-users do not understand why they need a given technology in the same terms as do the activists, the activists have difficulty reconciling their understanding that

groups "need" technologies with their own position opposing (White) paternalism. Indeed, the activists may be swimming upstream in their promotion of emerging technological options, which have to be explained both politically and technically; in the activists' experience, grassroots understanding of and demand for community radio stations was high, which was not initially true with community wi-fi networks. Sharing a common vision with members of the public about the potentials of community media technologies is an asset in the activists' work; this common vision may additionally serve as a (not always successful) strategy by which the activists evade the charges of paternalism that could be inherent in "bringing" technology to groups who have historically been excluded.

Lastly, while the current study chronicles the efforts of a specific group of activists, it is beyond the scope of this paper to characterize the nature of the interventions mounted by a wider range of activists, let alone to analyze the successes and failures of groups who try to ensure that the future of media will be democratic. Technologically oriented activism is but one of many strategies to bring about a more democratic media environment. It clearly carries with it the associations of entrenched cultural and historical relationships with and attitudes towards technology held by different social groups. However, it also represents an opportunity to contest social relations restricting access to media institutions, to technological expertise and affinity, and to political decisionmaking. The activists' reflective practices around these media technologies constitute a purposive, creative strategy intended to reconfigure the media system and to change social relations more generally; though their affection for technology is strong, they are not merely hobbyists coalescing around media technologies. Instead, activists seek to propagate community media through the often difficult work of resisting the persistent social structures that have historically limited access to technical artifacts and to technological expertise.

Notes

¹Though DIY has origins in postwar suburban masculine home improvement projects (Gelber, 1997), it is also consonant with the values of appropriate, small-scale technology and self-reliance found in the Appropriate Technology movement (Pursell, 1993; Turner, 2006). The media activists draw on both the DIY of Appropriate Technology and the interrelated DIY of punk/indie recording and 'zine subcultures (Waksman, 2004).

²Wi-fi is wireless broadband Internet connectivity. A wi-fi network is essentially a network of individual wireless transceivers.

³The FCC website listed 865 LPFMs on the air in April 2009. Retrieved April 11, 2009 at http://www.fcc.gov/fcc-bin/fmq?state=&serv=FL&vac=3&list=2,.

⁴The author by no means wishes to imply that "feminine"/domestic work is divorced from technology or technical skill. This is mainly an actors' label; the Pandora group uses "technical" to refer to audio, computer, and radio transmission hardware and software. Unless otherwise specified, "technical" here means related to hardware.

 5 The author speculates that "dudecore" comes from "hardcore," substituting the "hard" with another signifier for masculinity (see Edwards, 1990). It also sounds like "corps," as in "Marine Corps." It did not have an entry in the Oxford English Dictionary (OED) or Wikipedia when checked. Amongst these actors, the term "dude" is used commonly to refer to men, as one can note in the quotes.

⁶Kvasny (2005) critiques the debate over the "digital divide" for how it masks deeper issues by excluding other structural, longstanding, historical inequities. Kvasny also argues that "a production-oriented notion of IT may unwittingly reproduce social inequalities," a relevant point for the case in this article.

⁷Two of Pandora's approximately 10 radio station barnraisings were with Latino migrant workers' unions, in 2003 and 2006 (Immokalee, FL, and Woodburn, OR).

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