Hallenbeck, Sarah. *Claiming the Bicycle: Women, Rhetoric, and Technology in Nineteenth-Century America*. Southern Illinois UP, 2016. 205 pages.

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Sarah Hallenbeck's *Claiming the Bicycle: Women, Rhetoric, and Technology in Nineteenth-Century America* is a fascinating rhetorical analysis of the work of women bicycle-enthusiasts in the late nineteenth century. The project considers how women exercised rhetorical agency to construct "new identities and arguments for and about themselves" through embodied practices of cycling, writing about cycling, and creating related technological inventions (xiii). While Hallenbeck examines the collective impact of women's rhetorical activities, she notes that these material and textual practices were often fragmented and that women were not always deliberately seeking to "transform the gender order"; however, the repetition and visibility of their activities did have "rhetorical effects" (xv). The powerful intersections of her theoretical framework provide valuable insights to the fields of rhetoric, feminist historiography, and technical communication. That framework also offers a lens through which other scholars can analyze rhetorical agency within networks to shift or influence the social and cultural landscape.

Claiming the Bicycle reflects a recent push in feminist rhetorical scholarship to expand the boundaries of what counts as women's rhetorical activity. Hallenbeck references Jessica Enoch's call for work that considers how gender distinctions are created and disrupted. She builds on Royster and Kirsch's concept of social circulation, a means by which scholars can better understand "the social networks in which women connect and interact with others and use language with intention" (xv), in order to further discussions of how gender differences shift and transform the material networks that women inhabit, rather than focusing on how gender differences are sustained. Throughout the text, Hallenbeck connects these concepts to actor-network and cultural-historical activity theories to better situate the rhetorical actions of women bicyclists "within the networks of diverse, constantly shifting human and material elements" (xxi). She argues that these theories help in highlighting how rhetorical agency is shaped by, or dependent on, larger institutional and ideological structures and ways agents work within those structures.

Hallenbeck makes engaging contributions to cultural studies in technical communication by examining various artifacts in order to understand how "technology becomes integrated into the fabric of a particular cultural moment," as well as looking in the gaps to expand the definition of what counts as technical communication (xix). The preface touches on Judy Wajcman's *Technofeminism* to argue for the importance of analyzing the construction of technologies and the constant changes in these technologies. Hallenbeck returns to Wajcman's work in suggesting future considerations in her conclusion.

The nuanced, detailed examples provided in each chapter strengthen the readers' connections between the archival materials and her theoretical analysis. She draws from a wide range of rich cultural artifacts from the late nineteenth century, including traditional print sources like newspapers, magazines, and instructional manuals, but also more unique materials like photographs, actual apparel, and invention patents. Her diverse cultural artifacts exemplify to readers options for expanded their own definitions of archival materials.

The book is organized to make the examples more readily accessible to readers, with Hallenbeck breaking the text into chapters by different cultural artifacts. In the introductory chapter, "Regendering of the Bicycle in the 1880s" she argues that women's embodied performances as bicyclists during the decade destabilized the physical network of spaces male riders had established for themselves. While the tricycle and the Ordinary, two common late-nineteenth-century bicycles, positioned men and women users differently, a third option, the Safety, "defied gender categorization" because of less pronounced differences in the technology (3). This allowed for new riding purposes and contexts for both men and women. Of course, Hallenbeck recognizes that women bicyclists still had to manage the gender conventions of being seen as more frail than male riders, being considered only riding companions to men, and hearing ridicule or insults outside of major cities (31); however, women's collective efforts over the decade began to transform these gendered ideals. As more women rode, the material conditions changed and the network expanded, offering women more opportunities to exercise agency.

Hallenbeck examines the inventions women began to create in order to overcome user-design problems, arguing that inventive activities can be thought of as performances of user agency or demonstrations of the extent to which technology systems continue to develop. In chapter one, "Women Riders and the Invention of the Bicycle," Hallenbeck focuses on three particular calls to innovation: women's cycling clothing; the comfort, safety, and morality of bike saddles for women, and the need to protect the rider's face from outside elements. She marvels at the accomplishments of women bicycle inventors during this time period, particularly in relation to bicycling accessories,

and points out that only 1 percent of patents were filed by women throughout the U.S. during the 1890s, yet there were sixty patents by women in relation to cycling. Women's struggles to be taken seriously are highlighted, as men's individual inventions were often marked as brilliant while women's collective inventions were ignored or underscored. She uses the term "rhetoric of urgency" to show how saddles unsuitable for women bicyclists prompted the need for invention. Hallenbeck also uses the term "rhetoric of choice" in this chapter, as women inventors began to stress individual decisions, which incited opposition. Despite this opposition, women cyclists' innovations began to "fill holes in existing technology," addressing design problems and allowing women to create and exercise agency (66).

Chapter two moves away from the embodied experiences and into women's written practices, highlighting the rise of the "Bicycle Girl," depicted in popular magazines through advertisements, short fiction, commentaries and travel writing. She discusses how women rhetors, mostly amateur writers, used the popular magazine to create a "culturally viable ethos" that carried the potential for social change without threatening the social order while simultaneously taking advantage of a new social order established in middle- to upper-class neighborhoods (72; 77). The idealized figure of the bicycle girl was a complex image, working both to provide visibility of women's cycling activities while also maintaining certain stereotypes of women bicyclists as young and fun-loving. Hallenbeck notes the gendered conventions still in place, as many of the story characters lacked depth while others focused on courtship narratives in which women characters still conformed to gendered images of the bicycle girl, appearing, for example, in need of rescue by a male cyclist. She does note that some women broke from this script and depicted women as heroines. The chapter examines collective ethos, and Hallenbeck argues that while women were not always aware of the impact of their rhetorical efforts, there was "strength in repetition" with the written accounts in popular magazines helping to create arguments in favor of women as bicyclists (88).

Continuing on with the agency of women writers, chapter three, "Women's Written Instructions for Change," looks at technical communication, such as instruction manuals, suggesting they provided a counternarrative to the idealist bicycle girl from popular magazines. Hallenbeck considers how these technical communication sources allowed for a more diverse representation of women bicyclists and invited a wider range of women to become users of the new technology. First, she provides examples of male-authored bicycle manuals and then compares these with those authored by women cycling enthusiasts. She argues that the male-authored texts viewed men as experts, often presenting negative images of women as cyclists, and reinforced gendered notions that women were not natural fits for riding. In comparison, women

enthusiasts began writing their own instruction manuals that intervened in the dominant narrative of women's bicycling abilities, using the texts to question and transform the negative narratives. In particular, the chapter focuses on an author named Maria E. Ward. Instead of defending women's lack of ability, Ward continually argues that the problem is women's lack of knowledge regarding bicycling technology. In essence, Ward "breaks down gender binaries in relation to tool use, asserting that tools can be used by both sexes and the skills required are not gendered" (123). Enthusiast-authored manuals such as Ward's played an important role in encouraging women's confidence and changing men's beliefs about women and bicycling technology.

Chapter four, "Women Bicyclists' Embodied Medical Authority," focuses on the cultural artifacts that address how women enthusiast writers and women cyclists challenged the popular scientific medical authority of the time in order to construct agency regarding their own bodies as bicyclists. This chapter has important implications for various other scholars working on gendered ideologies of women's physical bodies and the way women have spoken back to these conventions. Hallenbeck's examination of the writing of medical authorities still plays into twentieth-first-century debates about the "natural" differences between men's and women's physical abilities. First, she highlights many of the cautionary tales put out by doctors and other medical authorities regarding bicycling and women's bodies, such as the impacts they would have on reproduction or parental nurturing (132). She also notes that women doctors in the 1890s used the same ideologies and approaches because these women were seeking approval by their male peers. Thus, the majority of doctors, male and female, saw women's use of the bicycle as only a treatment for specific ailments, to be used with careful doctor's supervision and restraint. However, women commentators published articles in popular magazines and newspapers to "indirectly" challenge these dominant narratives (149). Toward the end of the chapter, Hallenbeck moves back into women's embodied performances, where racers and endurance riders challenged dominant narratives about women's biological and psychological characteristics, especially near the end of the century. Many of these women riders even purposely overturned doctors' orders. For example, Hallenbeck provides provides the case of Margaret Gast, a woman who rode 200 miles a day, hoping to set the distance record of 4500 miles in 30 days, only to be stopped by a sheriff because such a display would start competitiveness in other women who would overdue it (162).

Hallenbeck argues that her book is intended not just to highlight what the bicycle did for women but also what women did for the technology of the bicycle. Women began to see themselves as agents of change, encouraging other women to take up cycling while they also invented new ways within the

network in which to do so. She notes that these types of collective activities have not yet received much notice from feminist rhetoricians and encourages further investigation of this type of accumulated activity in order to expand our understanding of social and cultural changes within a network. She also notes that the work of collective rhetoric goes on whether we acknowledge it or not, but that drawing attention to the way individual technology users create agency can be especially effective. In returning to Wajman's *TechnoFeminism*, she ends with three concluding generalizations she believes feminist scholars and technology users can use to understand agential orientation in the future. A Technofeminist rhetorical agent: 1) rejects the notion that technologies come to her in finished form; 2) understands her interactions with technology may maintain, complicate, or contest dominant social norms, and sees potential for social change; and 3) strives to be a tinkerer in the broadest sense, understanding that through use inventions emerge.

About the Author

April Cobos *is a PhD candidate at Old Dominion University, where she is completing her dissertation on the professional ethos building practices of women in explosive ordnance disposal military communities. She was the 2015 Feminisms and Rhetoric conference recipient of the Nan Johnson Outstanding Graduate Student award. Other current research projects include the visual rhetoric of disabled veterans and the writings of the Woodhull and Claflin sisters.*