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Beyond the Gender Gap: Understanding Women's Participation in Wikipedia

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BEYOND THE GENDER GAP: UNDERSTANDING WOMEN'S PARTICIPATION

IN WIKIPEDIA

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ABSTRACT

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In 2010, UNU-MERIT researchers surveyed editors of Wikipedia, "the online encyclopedia that anyone can edit" (Glott, Ghosh, & Schmidt, 2010). When the report revealed that almost 90% of the editors were male, however, it suggested that perhaps not everyone "*can* edit" Wikipedia—especially women. As the resulting media and academic explanations of the Wikipedia "gender gap" have largely attributed the gap to 'female lack'—lack of initiative, confidence, or technical skills—very little research has explored the treatment of women within Wikipedia culture. Thus, this paper first draws upon feminist technology scholars to problematize current explanations of the gender gap that frame it as a 'woman problem.' Then, through in-depth interviews with 26 English Wikipedia women editors, it explores sociocultural norms within Wikipedia that influence women's lived experiences and participation. The findings frame these norms as gendered organizational tensions, describing how women's experiences of these tensions lead to their perceived outcomes of isolation, emotional exhaustion and distress, and attrition. Despite these effects, many women editors persist due to their deeply rooted sense of purpose in their work on Wikipedia. The findings also draw upon feminist standpoint theory to discuss the tensions in women's sense-making of the gender gap,

specifically its causes, appropriate editor responses, and solutions. While the standpoints of the participants are complex and fluid, two primary approaches emerged. These approaches can be conceptualized as two ends of a continuum, as women who espouse an essentialist view of gender and an individualistic approach to addressing the gender gap are on one side, and women who hold to gender constructionism and call for cultural and structural change to address the gap are on the other. Thus, this study suggests that gendered sociocultural factors do bear upon women's participation within Wikipedia, and their sense-making of these gendered tensions—their causes, outcomes, and solutions—are textured by their own social locations and experiences, demonstrating the complexity of women's participation within Wikipedia. Due to these findings, put simply, the gender gap is not just a 'woman problem.'

CHAPTER 1. INTRODUCTION

Wikipedia™ is ubiquitous; its encyclopedic entries top Google™ search results

for nearly any standard search query. With over 35 million different articles and 17.89

billion page views per month, it is the sixth most popular website in the world (The

Wikimedia Foundation, 2015; Wikipedia: Size of Wikipedia, 2015). More interestingly,

Wikipedia's millions of entries are written exclusively by unpaid volunteers. In 2001, this

"encyclopedia anyone can edit", emerged as an experiment in the free and democratic

creating and distributing of knowledge—a model starkly contrasting that of the

traditional, corporatized knowledge industry (Lih, 2009). Unsurprisingly, some have

heralded Wikipedia as a symbol of democracy—of free information for the people, by the

people (e.g. Wilson, 2008). Others have applauded Wikipedia's egalitarian, meritocratic

functioning, propping it as a paragon of fair and equitable social organizing (e.g.

Konieczny, 2010; Lih, 2009).

However, within this seemingly democratic online community, women are

shockingly scarce. A 2010 Wikipedia editor survey reported that women make up less

than 13% percent of English Wikipedia's editors (Glott, Ghosh, & Schmidt, 2010).

Among Wikipedia's high power editors—the 1% responsible for over 50% of

Wikipedia's content—women are even fewer, with estimates hovering around 6%. While

some claim these numbers might be slightly higher (Antin, Yee, Cheshire, & Nov, 2011;

Hill & Shaw, 2013), the message remains clear: where are the women in the world's largest encyclopedia?

Since the news of the gender gap in 2011, it has been the source of numerous scholarly studies (Jullien, 2012). Whereas most of the scholarship has centered on the gap's effects on the encyclopedia's content or readership, some research has specifically examined causes for the gender disparity (Collier & Bear, 2012; Hargittai & Shaw, 2015). These quantitative studies have identified causes ranging from women's self-reported lack of technological skill and confidence (Hargittai & Shaw, 2015) to their dislike of the conflict and criticism involved in editing the online encyclopedia (Collier & Bear, 2012). Although the approaches taken by these studies have provided insight into the broad landscape of Wikipedia editorship trends, they have not examined the gender gap in depth, nor explored subtle processes and other factors within the Wikipedia world that may influence women's participation.

Thus, this project aims to fill this gap in the literature, to look within Wikipedia at sociocultural norms that affect women's experiences and participation. Specifically, through interviewing women Wikipedia editors, this study will examine the lived experiences of these women in order cultivate a deeper, more nuanced understanding of how women's participation shapes and is shaped by the Wikipedia community. This project can contribute to studies of technology, gender, and online communities by (a) gathering rich qualitative data related to women's experiences in male-dominated online environments (b) applying tensional and standpoint theoretical frameworks to gender and online organizational contexts, and (c) enhancing understanding of the effects of gendered power and neoliberalism in online communities.

More broadly, this project aims to produce empirical findings useful for creating awareness and promoting equality for women in online and knowledge production contexts. In addition to these feminist goals, this project adopts a feminist mode of inquiry by challenging prevailing explanations of the gender gap and examining how larger structural, social, and cultural forces affect the organizing of gender within Wikipedia. Therefore, this project spans micro, meso, and macro levels in its aim to provide depth and insight into the gender gap phenomenon.

To begin, I first provide a brief overview of the existing literature on the Wikipedia gender gap, describing how the prevailing perspectives neglect examination of the Wikipedia community itself. Next, I discuss the literature exploring Wikipedia's social dynamics and identify trends that indicate areas for further feminist inquiry. Then I discuss feminist orientations toward technology and tech culture, putting forth social constructionism as the metatheoretical approach and feminist standpoint theory as the methodology's theoretical grounding.

Women's Participation in Wikipedia

After the initial reports of the gender gap in 2011, most researchers examined the effects of the gap rather than explore its underlying causes. Those that did account for causes, however, largely cited women's lack of confidence or technical skill as the primary reason for their underrepresentation (Hargittai & Shaw, 2015; Collier & Bear, 2012). This discourse, similar to that of women's underrepresentation in science, technology, engineering, and mathematics (STEM) fields, has been challenged by feminist scholars as it locates the problem of women's underrepresentation within women themselves rather than interrogating historically masculine cultures of technology and

STEM (Phipps, 2011). Past work from feminist scholars has revealed many cultural and social factors within male-dominated communities that dramatically affect women's experiences and participation.

Although little to no research has been done on the gender dynamics of Wikipedia's community, much has been done on the social structure of Wikipedia. Studies of the editing processes and social dynamics of Wikipedia indicate that the community operates according to the ongoing interpretation of ambiguous policies and the exercising of social power (Matei & Dobrescu, 2010). As users subjectively determine truth and social policy, this process often serves personal and political interests, rather than Wikipedia's goal of "neutral" knowledge production. Thus, further research into the social processes and lived experiences of women is necessary as existing studies have revealed that editing and arbitration processes are far from objective or neutral and may be employed in gendered ways.

For example, empirical studies indicate that women's initial edits to Wikipedia are significantly more likely to be "reverted" (deleted) than a man's first edits (Lam et al., 2011). As users whose early contributions are reverted are most likely to leave Wikipedia (Halfaker, Kittur, & Riedl, 2011), such research suggests that low participation by women on Wikipedia may be caused by the community's high barriers to entry. Furthermore, research demonstrates that women are substantially more likely than men to be blocked indefinitely from Wikipedia (Lam et al., 2011). Furthermore, in informal accounts of their experiences, Wikipedia women cite gendered interactions as reasons for their discontent with the community or their disinterest in editing (Gardner, 2010). While these issues are further detailed in Chapter 2, in short, the lack of formal or academic

account of their women's perspectives further illustrates the need to hear in-depth responses from current Wikipedia editors.

<div align="center">**Metatheoretical, Theoretical, and Analytic Approaches**</div>

Metatheoretical Approach: Social Constructionism

As social constructionism grounds the feminist theories employed in this study, this project adopts a social constructionist metatheoretical approach. Social constructionism is a metatheoretical framework that identifies meaning, social, and cultural norms as constructed through human behavior and interaction. Social constructionism emerged in the 1960s through Berger and Luckmann's (1966) landmark publication, *The Social Construction of Reality.* In this text, the authors explain the process in which human actors maintain similar perceptions about reality and reinforce these perceptions as they interact with one another. Therefore, it is human interaction that creates meaning and constructs societal norms and values. Thus, a social constructionist framework grounds feminist technology scholars' claims that technology, online environments, and perceptions of gender are all socially shaped (Wacjman, 2007). As these norms are enacted through communication, feminist communication scholars often examine how communication constructs societal gender norms and relationships. This project takes a feminist communicative approach in studying women's experiences in Wikipedia, how the gender norms constructed in that space influence women's experiences and participation, and vice versa.

Theoretical Approach: Feminist Orientations Toward Gender and Technology

In order to explore these issues in depth, this project takes a feminist orientation toward technology and women's participation online, drawing upon three distinct

contributions of past feminist work. First, despite early cyberfeminist utopic ideals about technology, current feminist technology critics have challenged widespread technodeterministic beliefs in the separation of technology from its sociocultural contexts (Markham & Baym, 2009). Therefore, feminist technology scholars interrogate these contexts, specifically the ways in which larger social inequalities may be replicated online or facilitated through technology. Second, given this critical examination of social inequalities, feminists have challenged claims that the Internet is a purely egalitarian or democratic environment. And finally, due to the social inequalities existent in tech or online cultures, feminists problematize explanations of women's participation that fault women for their own underrepresentation rather than explore social or structural barriers to their participation imposed by cultures of masculinity.

Taken together, these feminist perspectives inform this project by challenging the claims of Wikipedia as an egalitarian, democratic environment and the explanations of the gender gap that locate the problem of women's underrepresentation within women themselves. Instead, this study explores the social locations and lived experiences of women in the online community in order to gain greater understanding of the sociocultural norms that shape women's participation within Wikipedia.

Analytical Approach: Feminist Standpoint Theory

In the context of this study, social constructionism informs not only the feminist theory grounding this project, but also its methodological approach. In particular, feminist standpoint theory positions knowledge as socially located and shaped by societal power structures (Harding, 1991). Furthermore, feminist standpoint theory provides an analytical lens that identifies knowledge production as central to understanding and

remedying inequalities between women and men, amongst other forms of difference. As this project examines the organizing of gender in online spaces and how knowledge is produced in gendered ways, feminist standpoint theory and its associated methodological insights and strategies are appropriate for this study.

According to the theoretical framework first established by Sandra Harding in 1991, socially marginalized groups possess an understanding of social reality distinct from that of the dominant group. As their understanding involves an awareness of oppression unshared by their oppressors, it is thought to be "more enhanced and more nuanced" than the knowledge possessed by dominant group (Hesse-Biber, 2014, p. 6). Through collective analysis of their shared experiences, groups of women in similar social locations can develop a "critical consciousness," or epistemic standpoint. Thus, by privileging the epistemic standpoints of socially subordinated groups, standpoint theory aims to shift the epistemological standpoint from those who are in power to those in who are socially marginalized (Hartsock, 2004). Since this standpoint exposes social inequalities of which the dominant group is unaware, this knowledge is the necessary starting point for effecting societal change.

Thus, in-depth interviews with women Wikipedia editors is a method well-suited to gathering rich, qualitative data about these women's lived experiences and their knowledge of Wikipedia. As predominant perceptions of women in Wikipedia are narrow and often fault women for their lack of representation, the unique knowledge of women within Wikipedia is essential for gaining a nuanced understanding of the variety of social factors and variables that influence women's experiences and participation within online communities like Wikipedia.

Summary and Overview of Chapters

In sum, the goal of this project is to explore the lived experiences of women within Wikipedia and how they contribute to a richer, contextualized understanding of women's participation in online communities. In this chapter, I first provided an introduction to Wikipedia, its growing societal significance, and women's underrepresentation within its editor community. Second, I overviewed the existing literature on the gender gap that illustrates the need for further inquiry, specifically inquiry that is qualitative and feminist. Then, I outlined research on Wikipedia's social dynamics that hints toward the gendered treatment of women. Next, I discussed social constructionism as this study's metatheoretical approach as well as the three contributions of past feminist technology scholars that inform this study. Finally, I discussed feminist standpoint theory as the grounding for the project's methodological approach.

Chapter 2 provides a more thorough review of literature relevant to this project. First, it discusses how the past work of feminist technology scholars challenges technodeterministic perspectives on the Internet, conceptualizations of the Internet as egalitarian and democratic, and common explanations of women's underrepresentation in the male domains online and in STEM. It then connects these concepts to the existing research on Wikipedia, problematizing claims of Wikipedia as a democratic space and the discourse surrounding the gender gap that draws upon a form of "socialization theory," or the concept that women's underrepresentation is attributable to female lack—lack of confidence, skills, or ability—rather than larger sociocultural factors. Chapter 2 describes the need for further qualitative inquiry by outlining existing literature on Wikipedia that

suggests how women may be disadvantaged by the current policies and social norms. The chapter concludes with a list of the specific research questions that guide this project.

Chapter 3 discusses this study's methodological approach. Beginning with an explanation of feminist standpoint theory, I apply this theory to women Wikipedia editors. I then describe the criteria for selection and the recruitment methods for the the 26 women editors of English Wikipedia who participated in this study. Following this section, I provide a rationale for in-depth online interviewing and my specific data collection procedures. This chapter concludes with a description of how the data was analyzing for emerging themes.

Chapter 4 presents the findings of this study. The first section describes the tensional approach used for explicating the findings. The chapter then examines Wikipedia's sociocultural norms, framing them as the gendered organizational tensions of inclusion / exclusion, adhocracy / oligarchy, and civil free speech / harassment as well as their perceived outcomes of isolation, emotional exhaustion and distress, and attrition for women editors. After discussing how many women editors persist due to their deeply rooted sense of purpose in their Wikipedia work, the findings also describe the tensions in women's sense-making of the gender gap, specifically its causes, appropriate responses, and solutions. This chapter concludes by describing how many women editors work together despite their diverging perspectives due to their shared sense of purpose in their Wikipedia work.

Chapter 5 discusses the theoretical and practical implications of this research project. More specifically, it describes how the findings of this study extend our understandings of neoliberalism's effects on women's participation in online spaces, the

role of standpoint theory and tensional approaches in addressing online and

organizational problems related to gender, and provides practical steps for organizations

to proactively address issues of harassment on their platforms. This report concludes with

a discussion of the study's limitations and suggestions for future research.

CHAPTER 2. LITERATURE REVIEW

Since the early days of cyberspace, feminist scholars have sought to understand

women's relationship with the Internet and its social implications. From the pessimism of

early feminist technology researchers (Wacjman, 2009), to the utopic visions of

cyberfeminists (Haraway, 1988), to the modern day studies of feminist social media

scholars (Gajjala, 2010; Hasinoff, 2014), feminist thought regarding technology is rich

and varied. This chapter overviews some feminist orientations toward technology to

provide a theoretical grounding for this project and necessary lens for conceptualizing

women's participation within Wikipedia. Thus, this chapter begins by outlining three

relevant contributions of feminist technology studies that indicate the need to examine

cultural dynamics that may enable or constrain women's participation in male-dominated,

technological spaces. Then, this chapter discusses existing literature on Wikipedia,

describing how the current gender gap discourse attributes women's underrepresentation

to "female lack" without examining barriers to women's entry imposed by cultural

dynamics of a male-dominated space. After outlining literature regarding Wikipedia's

cultural/social norms, including empirical and anecdotal evidence suggesting that women

editors experience gendered treatment and that these experiences require further inquiry,

this chapter concludes by discussing the specific research questions that guide this study.

Theoretical Approaches: Feminist Orientations Toward Technology

Feminist Technology Studies: A Social Constructivist Approach

Despite early utopic cyberfeminist discourse, the last twenty years of feminist technology studies have largely resisted the popular technological determinist standpoint, that is, the belief in technology's asocial nature and separation from societal structures and ideologies (Markham & Baym, 2009). Instead, feminist technology scholars maintain a social constructionist perspective (Bijker, Hughes, & Pinch, 1987; Hackett, Amsterdamska, Lynch, & Wacjman, 2008; Law & Hassard, 1999; MacKenzie & Wajcman, 1999), namely, an approach that "treats technology as a sociotechnical product—a seamless web or network combining artefacts, people, organisations, cultural meanings and knowledge" (Wacjman, 2009, p. 107). Therefore, technology "warrants a sociological gaze," (Lohan & Faulkner, 2004, p. 322), and feminist technology scholars examine the ways in which both gender and technology are mutually shaping (Berg, 1996; Faulkner, 2001; Lie, 2003; Wacjman, 2009). Thus, these scholars often interrogate the sociocultural contexts in which technology emerges and their implications for shaping gender norms.

Feminist Technology Studies: Examining Context and Reconceptualizing Participation

For the purposes of this project, a feminist technological approach has three distinct contributions: (a) it promotes a critical examination of technology's sociocultural context specifically as it relates to gender, (b) it challenges notions of technology or cyberspaces as purely democratic or egalitarian, and (c) it reconceptualizes women's participation within technological communities by examining sociocultural contexts.

As feminist technology scholars first began examining the contexts of technological production and use, a growing body of literature analyzing technology's "culture of masculinity" emerged (Wacjman, 2004, p. 15). Feminist scholars studied the history of technological production and its roots as a "masculine project of reason and objectivity" (Wacjman, 2004, p. 18). Feminist researchers explicated the ways in which technological skill and prowess are strongly linked to forms of hegemonic masculinity (e.g., Millar, 1998; Wacjman, 2004) and studied the hyper-masculine cultures of computer engineers and hackers (Faulkner, 2007; Morahan-Martin, 2000; Thomas, 2002). Feminists also studied the origins of the Internet, explaining how the fantasy of a "cyberfrontier… appeals to long enduring myths of masculine power" (Millar, 1998, p. 51), and how its early identification as a white male domain has continued to shape cultural conceptions of the Internet (Consalvo, 2002; Royal, 2007).

Thus, despite the popular language identifying the Internet is an egalitarian and democratic space, feminist scholars have exposed the historic, embedded masculinity of technological cultures and the Internet. Following the Internet's inception, many considered it a new frontier where democracy could be realized (Wacjman, 2004), believing its anonymity and ease of access would free individuals from restrictive social locations and offline inequalities (Herring & Stoerger, 2015; Konieczny, 2009). However, over time feminist technology studies have problematized these ideals, as social inequalities are repeatedly replicated—even exacerbated—online (boyd, 2014; Carstenson, 2009; Wacjman, 2009) and increasing evidence illustrates how masculine origins and control of technology and cyberspace continue to negatively shape women's access, participation, and experiences online (e.g., women's experiences with online

harassment, stalking, revenge porn). Thus, a feminist orientation toward the technology in this project demands a critical eye toward claims of the egalitarian and democratic nature of technology or online spaces.

Given technology's masculine culture, feminists also have interrogated how these cultural dynamics shape women's participation with tech culture and production. Mainstream explanations of women's underrepresentation in fields such as science and technology often cite women's lack of initiative, confidence, or necessary skills as the underlying cause (Phipps, 2011). Feminist theorist Valerie Walkerdine (1988) refers to this explanation as "socialization theory," or the "theory of female lack which constructs girls and women as passive objects rather than active subjects in relation to social norms and expectations" (Phipps, 2011, p. 774). Allison Phipps applies this theory to the discourse of the gender gap in fields of science, engineering, and technology (SET). In her research on women's lack of representation in SET disciplines, she cites the ubiquity of belief in girls' inevitable gender socialization, or the process of society forcing young girls to develop "sex-specific skills and interests" that turn them away from SET fields (p. 780). However, she problematizes this socialization discourse by exposing its underlying message of girls' "lacking in confidence and imagination, as well as being at the mercy of their parents, teachers, peers, society, and their biology" (p. 775). As a result, attention is trained on "female lack" rather than on the historical and symbolic masculinity of SET fields and their cultures of hegemonic masculinity (Lohan & Faulkner, 2004). Therefore, feminists challenge this socialization discourse and attempt to critically examine how STEM's masculine culture poses barriers of entry to women.

For example, after the Norwegian Institute of Technology reported one of the lowest rates of women in computing, researchers Hapnes and Rasmussen (1991) decided to analyze the Institute's culture instead of the perceived "'deficiencies' in girls, such as fear of technology and lack of self-confidence" (Margolis & Fisher, 2002, p. 73). They discovered that the atmosphere of the field was largely determined by the hacker minority, a subculture that turned many women away from computing. Similarly, Margolis and Fisher (2002), in their well-known work, *Unlocking the Clubhouse: Women in Computing*, interviewed women within college computing programs to gain greater understanding of the high rates of attrition. In the study, they discovered that the women often experienced an exclusionary or hostile culture. Male students in the computing program told women that they did not belong, or that they had been accepted solely because of their gender. Others in the program often treated the women's questions, inexperience, or difficulties with the coursework as indicative of a gender deficiency. Consequently, the researchers concluded, "It is only through understanding the processes by which many women experience an unwarranted loss of confidence" that individuals can understand women's loss of interest and decision to leave the field (p. 92). Thus, their findings reveal underlying factors explaining women's lack of participation in male-dominated spaces—and expose how explanations locating the problems within the women are insufficient. Therefore, drawing on the models of this previous feminist work, this project resists socialization perspectives on women's participation in Wikipedia and seeks deeper exploration of offline and online sociocultural dynamics that both enable and constrain women's participation within Wikipedia.

Women's Participation Within Wikipedia

Wikipedia: Existing Research

As Wikipedia has exploded in growth since 2001, scholars have studied the encyclopedia from a variety of angles. Some researchers have examined the motivations of contributors, others the social processes and interactions among members within the Wiki community, and still others the organization of the project (e.g., Capocci et al., 2006; Keegan et al, 2012; Nazir & Takeda, 2008; Voss, 2005) and the structure and quality of its content (e.g., Brändle, 2005; Halavais & Lackaff, 2009; Lih, 2004; Mcguinness et al., 2006; Viegas et al., 2004; Wöhner & Peters, 2009). Scholars have studied the processes of Wikipedia, such as the nature of collaborative teams (e.g., Lieberman & Lin, 2009; Hardy et al., 2012), management and leadership practices in Wikipedia (eg. Billings & Watts, 2010; Musicant et al., 2011), and the experiences of users, developers, and editors (e.g., Amichai-Hamburger et al., 2008; Müller-Seitz & Reger, 2010). However, only recently have studies of women within the context of Wikipedia emerged.

Wikipedia: Values

Research on Wikipedia's values has revealed how they reflect the larger democratic discourse of the Internet and share the same "hacker ethic" that shaped the Internet's inception. According to Andrew Lih (2009) in his book, *The Wikipedia Revolution: How a Bunch of Nobodies Created the World's Greatest Encyclopedia*,

> The success of Wikipedia is based on simple principles that appear as a radically new phenomenon but in fact extend the long tradition of a hacker ethos to a whole new generation of Internet users. Wikipedia is built on this hacker culture to

establish its principles of making an encyclopedia that is free, open, neutral, timely, and social. (p. 24)

Jimmy Wales began Wikipedia with the ideological mission to provide freely accessible and editable information to everyone, in opposition to the traditional, corporatized reference book industry. Thus, this democratic and egalitarian ethic are evident in the origins of Wikipedia, its tagline, "the encyclopedia that anyone can edit", and its core values, or "five pillars." The first two pillars, that Wikipedia is an "encyclopedia" and "neutral" knowledge source emphasizes that Wikipedia should be a project untainted by corporate soapboxing or advertising—that it is a neutral, "fair," accurate, and trustworthy. The third pillar, that Wikipedia hosts "free content that anyone can use, edit, or distribute" further illustrates the belief in freedom of information that is equally editable and accessible to everyone (Wikipedia:Five Pillars, 2015). Finally, the last two pillars—that editors should treat each other with respect and the lack of firm rules—emphasizes the libertarian trust in the goodness and equality of individuals despite little to no governing system.

These hacker values are evident in Konieczny's (2010) interpretation of Wikipedia's organizational beliefs: "flat hierarchy, decentralization, little managerial control, and ad-hoc creation of informal multidisciplinary teams" (p. 277). Despite the scholarship praising wiki for this structure (Konieczny, 2010; Lih, 2009), a feminist approach necessitates a critical eye toward this discourse, especially given the research on women in Wikipedia and the politics of knowledge production within Wikipedia, an egalitarian and "neutral" information source.

Wikipedia: The Gender Gap

Despite the egalitarian ideals of Wikipedia, UNU-MERIT researchers have reported that less than 13% of Wikipedia editors are women (Glott, Ghosh, & Schmidt, 2010). The exposure of the "gender gap" prompted a flurry of media coverage and academic research on the divide. The following year, Wikipedia's parent organization, the Wikimedia Foundation, conducted a survey revealing even lower participation by women, reporting that less than 8.5% of active Wikipedia contributors are women ("Wikipedia Editors Study", 2011). While some studies have contested these numbers and suggested that the percentage of women may be slightly higher (Antin et al., 2011; Hill & Shaw, 2013), most subsequent studies have simply examined the gender gap's effects on Wikipedia content and readership. For example, Rhue and Reagle (2011) discovered that male biographies on Wikipedia far outnumber female biographies, resulting in a male bias more pronounced than that of traditional reference works such as the Encyclopedia Britannica. A study by Lam, Uduwage, and Dong (2011) reported that articles on traditionally "masculine" topics were generally longer than the articles on feminine topics. In addition to documenting content bias on Wikipedia, studies have also revealed lexical bias on the site. Wagner, Garcia, Jadidi, and Strohmeier (2015) reveal how articles on notable women emphasize the fact they are women, thus reinforcing the notion of male as the "standard gender." This finding reflects the multiple media critiques of Wikipedia's moving notable women novelists out of the "American Novelists" section into a separate, "American Women Novelists" category (Filipacchi, 2013). Finally, some scholars have connected these content and lexical biases to gender differences in Wikipedia readership. According to authors Lim and Kwon (2010), men are more likely

than women to read Wikipedia, consider it a credible source of information, associate positive emotions with Wikipedia, and express belief in the value of the Wikipedia project.

However, these sources merely describe various effects of the gender bias rather than explore underlying factors that may explain its existence. The few studies that discuss causes of the gender gap are limited to descriptions of particular female attitudes or traits that deter involvement. By doing so, these studies mobilize the "gender deficit" model (Arnot et al., 1997, p. 74), or the belief that women's underrepresentation is the fault of women—their lack of confidence, initiative, or knowledge. For example, Collier and Bear (2012) analyzed how conflict avoidance and lack of confidence affect women editors' desire to contribute. They found that women participants were significantly less likely to engage in editing practices due to dislike of the high conflict interactions characteristic of Wikipedia. The women surveyed were also 43% more likely to avoid editing Wikipedia due to a lack of confidence in their knowledge or expertise and 34% less likely to edit due to a dislike of critiquing or deleting other individuals' text. By substantiating their claims with similar findings in other psychological and sociological research, the authors imply that these traits are descriptive of women in general. Not only is such an interpretation predicated upon socialization theory, but it also fails to account for how factors within Wikipedia might cultivate these attitudes among women.

Similarly, Hargittai and Shaw (2015) discuss the role of the technological "skills gap" in predicting Wikipedia contribution. According to their study, "higher levels of Internet skills predict much greater probability of contribution for men than for women" (p. 20). They connect this finding to the larger societal trend of males' increased

technological proficiency, suggesting that the Wikipedia gender gap simply reflects these cultural patterns of women's socialization. Furthermore, they also found that women participants who demonstrated equal technological skill as the male participants still self-reported less technical ability than their male counterparts. Thus, similar to Collier and Bear (2012), the authors attribute the gender gap to both this lack of skills and confidence. Thus, socialization theory undergirds their arguments, implying that the gender gap is the fault of "female lack."

Unfortunately, media commentary on the gender gap also reflects this gender deficit model, illustrating its widespread prevalence as an explanation for women's underrepresentation in contexts like Wikipedia. In Eckert and Steiner's (2013) examination of media responses to the gender gap, they include Stanford researchers Etzkowitz and Ranga's response to the *New York Times* article, "Where are the Women in Wikipedia?" These scholars, like others listed, cite "lack of self-confidence" as a likely contributing factor to the gender divide (p. 291). In Barbara Fister's *Inside Higher Ed* blog post, "Women and Wikipedia," she lists widespread belief in women's culpability for the gender gap given the assumed egalitarian nature of Wikipedia, "the encyclopedia anyone can edit." In this large-scale study of blogs and online comments discussing the gap, Eckert and Steiner (2013) state that basic gender differences—whether biological and/or socialized—comprised over 50% of commenters' explanations of the gender gap. While many commenters mentioned the hostile culture of Wikipedia, the majority of academic and media commentary on the gender gap continues to train attention on "female lack"—female lack of confidence, participation, bravery—rather than cultural or structural barriers to their involvement with Wikipedia.

In Eckert and Steiner's analysis, they discuss the implications of this media discourse in the context of the current neoliberal cultural climate. They link commentators and bloggers blaming of women for not engaging in Wikipedia, the "online encyclopedia that anyone can edit," to a neoliberal discourse that blames women's lack of participation on their own personal choices rather than structural barriers or cultural hostility. In summary, their argument illustrates an intensification of socialization theory, as they claim that the invoking of neoliberal rhetoric of individual choice compounds the notion of "female lack" and perpetuates a "backlash" mentality by using the postfeminist rhetoric of emancipation against women.

Therefore, both academic and common cultural arguments that attribute the gender gap to women's biology or socialization shift the focus onto "female lack" instead systemic issues within the male dominated spaces of SET and online wikis (Lohan & Faulkner, 2004). Thus, feminist scholars must examine the culture of Wikipedia in order to combat these voices faulting women for the Wikipedia gender gap—especially given the indications that Wikipedia culture can be hostile to women. Thus, the next portion of this paper provides an overview of existing research and relevant women editors' commentary on the culture of Wikipedia to provide a starting point for feminist scholars and prompt them toward further interrogation of Wikipedia as a gendered space.

Wikipedia: Social Structure and Subjectivity

Whereas little to no research has been done on the gendered nature of Wikipedia's culture, much has been done on the social structure of Wikipedia. As studies indicate that Wikipedia operates according to subjective arbitration of truth and the exercising of social power, research suggests that Wikipedia content editing and arbitration processes

have two characteristics: first, they are far from objective or neutral and, second, they may be employed in gendered ways.

Despite Wikipedia's idealist emergence as a democratic, egalitarian project, a highly bureaucratic structure has evolved over time as the site has expanded in size and scope (Kittur, Chi, Pendleton, Suh, & Mytkowitz, 2007; Viegas et al., 2007). At the start of Wikipedia, the vast majority of edits stemmed from a hyper-small minority—over 50% were made by less 1% of contributors (McHenry, 2005). While some studies have illustrated the growth of the Wikipedia user base and the increase of edits from the "common user" (Kittur et al., 2007), recent studies have also revealed how high-edit users, or established Wikipedians are "quality" contributors. In a study of content persistence (text which remains without significant revisions or deletion), "Priedhorsky found that the top 10% of editors (by number of edits) contribute 86% of the value when measured by word views on the English language Wikipedia and that an even more elite group, the top 0.1% by number of edits (about 4400 editors) contribute 44% of the value" (Panciera, Halfaker, & Terveen, 2009, p. 2). Furthermore, many of these users are peer-elected, veteran editors given special administrative privileges such as the authority to block users, protect or delete pages, and arbitrate disputes (Kittur et al., 2007). Within Wikipedia, the result is a "background hierarchy of administrators, sysops, bureaucrats (actually so called), and stewards, watched over by an arbitration committee and finally the founder himself, who retains ultimate authority" (McHenry, 2005, p.1). Jimmy Wales, the founder, has been referred to as both the "benevolent dictator" and "The God-King" (Wired, 2005, p. 3). Beneath him is the "aristocracy (… editors with superior reputations get more say than others)," or those administrators and editors who wield a particular

amount of social power. As McHenry (2005) says, "Even online, democracy has its limits" (p. 1).

On Wikipedia, knowledge production results through ongoing discussion or argumentation, and it is often the veteran editors that invoke Wikipedia policy in order to influence and resolve these arguments (Panciera et al., 2009; Jullien, 2012), in effect, ultimately determining the "truths" published on the site. Thus, due to the lack of formal structure on Wikipedia, the informal social ties and perpetual subjective interpretation of policies and events constitute its structure. Matei and Dobrescu (2010) argue that Wikipedia "is a space that, willingly or not, fosters personal interpretation of rules and expression of opinion" (p. 42). Therefore, this continual interpretation results in an ongoing "game of ambiguity" that allows for those with long-standing reputations and social power to influence the culture and knowledge production on the site.

Not only are conflicts resolved through ambiguity, but this ambiguity can serve political and personal purposes. As Matei and Dobrescu (2010) write, the "neutral point of view" policy is frequently invoked and subjectively wielded by Wikipedia elite's in order to support alliances, defend one's editing territory, or reinforce personal biases. Kriplean, Beschastnikh, McDonald, and Golder (2007) refer to these events as "power plays," where editors take advantage of ambiguity to "control content and coerce others during the consensus process" (p. 1). For example, this might happen when a new Wikipedia editor attempts to change a page "controlled" by a veteran editor. The ambiguous consensus process provides an opportunity for the Wikipedia veteran to defend his turf, to exercise social authority, or—should the disagreement escalate into an edit war—even call upon his or her Wikipedia "posse" to revert changes that challenge

his or her authority. Furthermore, a study by Morgan, Mason, and Nahon (2011) illustrates how the invoking of Wikipedia policy to support Wiki ideals can simultaneously counteract other Wiki ideals, as in the case with the Jyllands-Posten Muhammad Cartoon Controversy where the Wikipedia community arbitrated in favor of free information as opposed to multicultural inclusiveness—a Wiki ideal related to egalitarian access and involvement. Thus, the subjective interpretation of Wikipedia policies can "enforce dominant values and marginalize minority points of view" within the editing and discussion processes (Morgan et al., 2011, p. 2).

Even in the context of administration involvement or arbitration, the nature of ambiguous consensus remains. When conflict escalates, the arbitration committee may be called upon to resolve a dispute. However, the peer-selected Wikipedia elite who arbitrate the dispute engage in the same process of ambiguous resolution in order to arbitrate. In an analysis of emotional language on the Wikipedia discussion pages, Laniado, Castillo, Kaltenbrunner, and Morell (2012) found that administrators are more likely to take an emotional tone when discussing Wikipedia policies, a tone that "is definitively not neutral" (p. 9). In fact, the authors suggest that administrators should work harder to state their reasoning for invoking a particular policy, so as to avoid their emotionally dominant tone appearing as arrogance. Such findings illustrate how administrators especially engage in subjective interpretations—though in a process not separated from personal and political motivations. In this context, the implications for personal biases and alliances have larger cultural and practical influence.

Thus, the culture of Wikipedia is one where elite users can arbitrate truth and social policy in the midst of ambiguity. This process often serves personal and political

interests, rather than the objectivity or neutrality of the encyclopedia. However, Antin et al. (2011) point out that women are most underrepresented in Wikipedia's elite group who create and implement policies, arbitrate and mediate disagreements and determine content. Of users who claim over 2,000 edits, women are less than 6%—indicating that the gender gap at the administrative, high-influence level is far more severe than general Wikipedia editing (Lam, Uduwage, Dong, Sen, Musicant, Terveen, & Reidl, 2011). Antin et al. (2011) worry how the "biases of worldview and temperament can subtly creep" into these high stakes contexts where there are extremely few women and very high barriers to their entry (p. 14).

Empirical Evidence Suggesting Sexism Within Wikipedia

Thus, we know that women are not represented in the "power players" who determine content, policy, and culture according to their own subjective biases and motivations. Therefore, what does this mean for women in Wikipedia? While the research examining this is very slim, the existing academic research and informal online accounts of women suggest two findings: women are far more likely to have their edits deleted/reverted; and some women experience discrimination and/or a sexist atmosphere within Wikipedia.

First, empirical literature tells us that women's initial edits to Wikipedia are significantly more likely to be reverted or deleted than a man's first edits (Lam et al., 2011). As users whose early contributions are reverted are most likely to leave Wikipedia (Halfaker, Kittur, & Riedl, 2011), such research suggests that low female participation on Wikipedia is likely due in part to the high barriers to entry into the community. Furthermore, Lam et al. (2011) also discovered that women are substantially more likely

to be blocked indefinitely from Wikipedia than men. These authors conclude their study, stating "the available data indicate that female editors experience more adversity than male editors in all the areas that we studied," and that such findings "hint at a culture that may be resistant to female participation" (p. 9).

Informal Accounts from Women Editors Suggesting Sexism within Wikipedia

While this study "hints" or suggests that Wikipedia culture is adverse to women, these findings match the informal accounts of women editors proliferating in popular social media websites or blogs, such as one by Sue Gardner, the former executive director of Wikimedia. After the *New York Times* published its well-known 2010 article on the Wikipedia gender gap, Gardner began following the media commentary and compiled women's responses to the gap in a blog titled, "Nine Reasons Why Women Don't Edit Wikipedia in Their Own Words" (Gardner, 2010). According to the comments collected by Gardner, one of the primary reasons women do not edit is because their contributions are too likely to be deleted or reverted. Gardner lists posts from online forums and article comment sections where women express frustration over their content being deemed too "insignificant" for publication on Wikipedia. For instance, a Wikipedia editor on Metafilter states:

> I can add all kinds of things to male YA authors' pages with minimal cites and no one says a word. Whereas, every time I try to add a female YA author, or contribute to their pages, I invariably end up with some obnoxious gatekeeper complaining that my cites from Publisher's Weekly and School Library Journal aren't NEARLY enough, and besides, this author isn't SIGNIFICANT enough to have an entry, who cares if she published three books? They're not

NOTEWORTHY. Meanwhile, 1-Book Nobody Dude's Wikipedia page is 14

printable pages long. (as cited in Gardner, 2010)

Thus, women who contribute to Wikipedia have found that their articles or contributions are rejected due to others' subjective mandating of Wikipedia content. Barbara Fister (2011) effectively summarizes this sentiment in her *Inside Higher Ed* blog post:

Since the *New York Times* covered the issue, I've heard more stories than I can

count of women who gave up contributing because their material was edited out,

almost always because it was deemed insufficiently significant. It's hard to

imagine a more insulting rejection, considering the massive amounts of detail

provided on gaming, television shows, and arcane bits of military history.

Furthermore, some women claim that even their contributions to pages on women's issues are likely to be reverted or changed. For instance, Gardner cites a *Feministing* commenter discussing her frustration in attempting to edit the misleading or incorrect information on the "Violence Against Women Act" Wikipedia article. She states that, in addition to the errors, parts of the article were written with a tone "slightly sarcastic and minimizing to the work of women rights advocates" (as cited in Gardner, 2015). Every time she or another advocate would try to correct the page, the edits would be reverted. Finally, the advocates gave up trying to correct a page so vigilantly controlled by male gatekeepers.

Therefore, since Wikipedia users regularly suggest articles for deletion and women's contributions are most likely to be reverted, this evidence indicates the need for further research into the culture of Wikipedia.

As women fight for the survival of their contribution, they engage in the iterative

process of negotiation and "consensus-reaching". However, in these interactions women have voiced feeling sexist language or harassment. Although no empirical literature has studied the harassment of women Wikipedia members, in Laniado et al.'s (2012) study of emotional tones of Wikipedia editors, they discovered that editors often addressed women in a patronizing or condescending tone, suggesting that these subjective interpretation and interaction of policy and events by editors can be done in a discriminatory way.

While the academic research suggests a small hint at how women are treated on the site, multiple accounts from popular cultural news sources have included testimonials of harassment or discrimination on the site. For example, a woman Wikipedia editor, in a comment on the "Shiny Ideas" blog, writes:

Any woman identified as a woman who edits Wikipedia and dares to stumble into some territory some male or group of males has staked out will quickly find that the double standard lives and they will be criticized and their words twisted, even when men who say the same things are ignored or cut some slack. If they dare to persist in holding their ground or acting as equals in the conversation the criticism may escalate to insults and off and on wiki harassment. If a woman complains about a man's incivility in its various complaint forums, her complaints are not as likely to be taken as seriously as when men complain about other men or about the occasional woman who rocks their world with incivility equal to their own. (as cited in Gardner, 2015)

Similarly, a recent article from the popular blog www.thinkprogress.org included the narrative of Sarah Stierch, a 10-year Wikipedia editor and former employee at Wikimedia.

According to Stierch,

> You shouldn't have to worry about what happens in your personal life … There is
> no reason why anybody, regardless of gender or political beliefs, should have to
> go onto a website about sharing knowledge and writing an encyclopedia — which
> is pretty damn geeky — and get harassed while doing it. It's absurd. (as cited in
> Williams, 2015)

As these accounts demonstrate, sexism or harassment greatly shapes the experiences of
some women editors on the site. These testimonies of women's mistreatment on
Wikipedia—combined with the scholarly research establishing the subjectivity of
Wikipedia's editing and decision-making processes and its gendered applications—
illustrates the insufficiency of a socialization explanation for women's lack of
participation within Wikipedia. In depth scholarly inquiry into women's experiences in
Wikipedia is necessary to provide a more thorough depiction of women's experiences on
the site—and how these experiences shape women's participation.

Research Questions

In light of the existing research on Wikipedia, this project challenges
Wikipedia's egalitarian and democratic language, utilizing feminist approaches toward
technology to look within the culture to gain a richer, more nuanced understanding of
women's participation within the online community. Thus, this project resists
explanations of the gender gap that endorse socialization theory; instead it seeks to
interview women about their lived experiences within Wikipedia culture to better
comprehend how the culture may enable or constrain women's participation. Therefore,

my first research question is:

RQ1a: What are the lived experiences of women Wikipedia editors?

As the overviewed feminist scholarship indicates, examining the lived experiences of women within male-dominated cultures is central to deepening understandings of women's participation within these contexts. Therefore, in order to better understand its nuances, this project seeks to reveal how women's participation within Wikipedia is shaped—whether facilitated, frustrated, or both—by their gender identity.

Second, as feminist standpoint theory is anchored in women's sense-making and politicized understandings of their social locations, this project is concerned with how Wikipedia women conceptualize their own (and other women's) participation within Wikipedia. Women editors, unlike their male counterparts, possess a distinct knowledge of Wikipedia shaped by their gender identity and unique experiences. Thus, the perspectives of women within Wikipedia is essential in understanding the larger questions related to women's participation within the online community. Therefore, my second research question is:

RQ2: How do women editors make sense of women's underrepresentation within Wikipedia?

Taken together, these research questions can prompt valuable, qualitative feminist inquiry into how women editors' lived experiences affect women's participation within the online community of Wikipedia. In so doing, this project seeks to challenge harmful, superficial explanations of women's lack of participation within Wikipedia and potentially shed light on women's participation in other online communities, knowledge

production contexts, or in male dominated environments offline, such as STEM fields.

The following chapter discusses the methodological approach chosen for thoroughly

exploring these questions regarding women in Wikipedia.

CHAPTER 3. METHODS

As the previous chapters discuss, no known scholarship engages questions of women's lived experiences within Wikipedia culture despite evidence of women's gendered treatment within the Wikipedia community. Thus, further exploration into the lives and social locations of women Wikipedia editors is necessary. In order to do so, I conducted 26 semi-structured interviews with women Wikipedia editors. Data collection and analysis were grounded in feminist standpoint theory and guided by principles of feminist research practice. I will begin this chapter by describing the analytical and methodological approaches used for data collection and analysis. I then describe the sample of participants and discuss how an in-depth, semi-structured, online interviews are an appropriate method for this study. Finally, I detail the procedures used to collect and analyze the data in this project.

Feminist Standpoint Theory

Feminist standpoint theory is a theoretical framework that positions knowledge as socially located and shaped by societal power structures (Harding, 1991). According to prominent feminist standpoint scholar Sandra Harding (1991), socially marginalized groups possess an understanding of social reality distinct from that of the dominant group. As their understanding involves an awareness of oppression unshared by their oppressors, it is considered "more enhanced and more nuanced" than the knowledge possessed by dominant group (Hesse-Biber, 2014, p. 6). Through collective analysis of their shared

experiences, groups of women in similar social locations can develop a "critical consciousness," or epistemic standpoint (p. 6). Thus, by privileging the epistemic standpoints of socially subordinated groups, standpoint theory aims to shift the epistemological standpoint from those who are in power to those in who are socially marginalized. Since this standpoint exposes social inequalities of which the dominant group is unaware, this knowledge is the necessary starting point for effecting societal change.

Therefore, a study grounded in standpoint theory begins with the stories of marginalized women, their experiences in "a particular time and place, located within a particular set of social relations" (Harding, 1991, p. 159). A researcher's goal is to elicit these stories that reveal the "the partiality of a dominant way of thinking," and "[bring] a new angle of vision to bear on old questions and [raise] new questions for empirical investigation" (Wylie, 2004, p. 348).

As standpoint theory demands critical attention to how power structures shape the lives of the marginalized, it also demands that researchers consider how power inequalities may shape the research process itself—and work to alleviate them when possible (Naples, 2007). Therefore, the researcher must practice "reflexivity," or the careful analysis of one's social location and research process in order to avoid unconsciously reproducing power inequalities during the project (Pillow, 2003). Thus, many feminist researchers also privilege mutual participation in the research process, encouraging participants to take an active role as co-creators of meaning (Devault & Gross, 2012). By creating knowledge alongside participants and sharing interpretive

authority with them, feminist researchers can strive to minimize power differences within the researcher/researched relationship.

Research Participants

Sample

Standpoint theory applies to the unique demographic of women Wikipedia contributors as these women have an editing experience distinct from their male counterparts and a knowledge of Wikipedia's social relations fundamentally different from the male majority. Furthermore, many women editors also demonstrate a critical awareness of their marginalization and actively organize in attempts to reform the system. For example, women Wikipedia editors who participate in the Wikipedia "Gender Gap Task Force," demonstrate this "critical consciousness" as they collectively edit articles on women and organize activities focused on increasing content on women. Therefore, I sought experienced women editors with an awareness of the Wikipedia gender gap. Since many editors 'drop off' after a few weeks of editing (Panciera et al., 2009), I selected women with at least 2 years of active editing experience within Wikipedia as they are more likely embedded in the community and editing consistently. In addition, experienced editors likely have more rich and varied experiences from which to draw from, and they may be able to speak to longer-term trends or dynamics within the Wikipedia community. Finally, research demonstrates that established editors are more likely to have served in a variety of roles other than simply a content editor (Panciera et al., 2009).

The specific demographics of participants are not discussed given the close-knit community of Wikipedia and the ease of de-anonymizing established editors by

providing certain demographic specifics. Instead, this report speaks in generalities to protect the participants' confidentiality. Thus, the women in this study represent four different nationalities, several different ethnicities, and a range of ages and sexual orientations. Some women have edited for 10+ years, with the shortest editing length being 2 years. The participants edit in a variety of topic areas and serve a variety of roles within Wikipedia. Some serve as Wikipedia local chapter members, others administrators, others members of organizing Wikipedia editing projects, and still others teachers who engage Wikipedia in the classroom.

Recruitment

As I sought to interview women editors who demonstrate an awareness of gender bias within Wikipedia, I began my recruitment through the Wikipedia Gender Gap mailing list. These editors not only demonstrate an awareness of bias, but also appeared embedded within the Wikipedia social structure and edited regularly. I posted a message to the mailing list inviting women editors of the English Wikipedia who had edited for 2+ years if they were interested in discussing their experiences as women within Wikipedia. After recruiting several women from this list, I also posted calls in the Wikipedia research mailing list, and the Facebook group "Wikipedia Women." In addition, I supplemented these strategies with snowball sampling, seeking to leverage the dense social networks of established Wikipedia editors.

Simultaneous recruitment and data collection occurred January through June of 2016. In addition to providing participants with the stamped IRB information sheet, I also created a Wikipedia research project page at the request of some participants. Halfway through recruitment, I included a link to this page in my calls for participants. This page

can be viewed here:

https://meta.wikimedia.org/wiki/Research:Beyond_the_Gender_Gap:_Understanding_Women%27s_Participation_in_Wikipedia

Procedures

In-Depth Interviews

As current Wikipedia research has been restricted to largely quantitative or textual analysis, an exploration of subjective experiences of individuals—particularly women—is lacking. Therefore, I chose in-depth interviews with women Wikipedia editors as a means to gather rich qualitative data about their lived experiences. First I discuss how this method is well-suited to a feminist standpoint study as it privileges the lived experiences of the participants and seeks to reduce power inequities by facilitating the co-creation of meaning between the researcher and researched.

Rich description of lived experience. According to Lindloff and Taylor (2002), interviewing enables researchers to collect thick, nuanced descriptions of a "social actor's experience and perspective through stories, accounts, and explanations" (p. 173). As an epistemic standpoint emerges from women's social location and experiences, scholars have considered interviewing to be a highly conducive method for uncovering these experiences and exploring women's unique standpoints (Devault & Gross, 2012).

Feminist researchers have used in-depth interviewing as a "means to bring forth and make visible the voices and experiences of marginalized communities" (Linabary & Hamel, 2014, p. 8). One of the ways feminist interviewers can facilitate this process is through eliciting participant narrative. Through narrative, researchers can attempt to uncover the unspoken stories of women to better understand their lived experience and

the "subjugated knowledge" or "standpoint" that arises from their particular experiences

(Hesse-Biber, 2014). Furthermore, the language used during narrative conveys the

meaning attached to the issues explored. As Ramazanoglu and Holland (2002) explain,

"Language is a critical element in connecting knowledge and experience if it is through

language that identities, subjectivities and experiences are made, given meaning and

remade" (p. 153). As participants share stories, and make meaning from their experiences,

their subjugated knowledge, or "standpoint" emerges.

      Mutual participation and co-creation of meaning. Additionally, interviewing is

a method well suited for feminist research because it facilitates the co-creation of

knowledge between interviewer and interviewee and lends rhetorical authority to the

participant. As Shulamit Reinharz (1992) explains:

> Interviewing offers researchers access to people's ideas, thoughts, and
>
> memories in their own words rather than the words of the researcher. This asset
>
> is particularly important for the study of women because in this way learning
>
> from women is an antidote to centuries of ignoring women's ideas altogether
>
> or having men speak for women. (p. 19)

Thus, the encouraging and eliciting of narrative is a practice of empowering the

participant and attempting to reduce hierarchy between interviewer and interviewee

(Hesse-Biber, 2014) Furthermore, in the interview context, when a researcher is "open

and gives something of herself by talking about herself" (Letherby, 2003, p. 83), this

reciprocity and interactivity helps reduce hierarchy and place interviewee and interviewer

on the same level. Ideally, this creates a space where participants feel free to share their

stories and (Keddy, 1992) and become involved in the research process as co-producers

of meaning. Rather than the researcher demonstrating power over the participant, the researcher "shares or negotiates interpretive authority with research participants" (Devault & Gross, 2014, p. 189).

Interviewing online. As the lack of qualitative research on Wikipedia illustrates, the stories of many women editors have gone unvoiced, and their unique knowledge of Wikipedia culture is currently unknown. For this reason, I chose in-depth interviews to elicit narratives about their experiences as self-identified women within the Wikipedia space. Furthermore, I conducted these interviews online, through Skype technology and email correspondence. By interviewing participants online, I sought to leverage those aspects of multimodal online interviewing uniquely conducive for eliciting rich data, adhering to a feminist methodological approach, and for reaching online communities.

While the face-to-face interview has long been considered the "gold standard" for in depth interviewing (Seymour, 2001), the growing body of online interviewing literature suggests that online interviews should not be considered the lesser, secondary choice (Deakin & Wakefield, 2013, Kazmer & Xie, 2008; McCoyd & Kerson, 2006) but claim it is a burgeoning methodological frontier with great potential for rich and innovative research (Madge, 2010). Not only has online interview research suggested that the method is equally as effective as face-to-face interviews in eliciting rich data (Deakin & Wakefield, 2013; Kazmer & Xie, 2008; Mann & Stewart, 2000; McCoyd & Kerson, 2006), but it also suggests that online interviewing can help reduce power distances between researchers and participants. First, participants can place certain parts of the study on their own terms. For example, when corresponding through email, individuals can choose the time, location, and rate of response. When corresponding through Skype,

individuals can choose an environment that is convenient and comfortable for them (Deakin & Wakefield, 2013; James & Busher, 2009; Janghorban, 2014).

Furthermore, online interviewing is highly practical—especially for individuals who are active members of online communities. Online interviewing creates access to individuals that are geographically dispersed or who do not possess the time or resources necessary to engage in an in-person interview (James & Busher, 2009; Salmons, 2012). While access to technology and the Internet may pose limitations on some populations, all regular Wikipedia contributors demonstrate frequent access to both and were accessible for online interviewing.

Interviewing women Wikipedia editors online. Therefore, after obtaining IRB approval and recruiting participants online, I emailed participants to introduce myself and the project and begin building rapport. At this point, I informed the participants of the project's goals, basic procedures, attached the stamped IRB info sheet and asked them to review the information and ask me if they had any questions. I also asked if they preferred email, phone, or Skype interviews, as many of the women experienced constraints related to time zone, work, and family life. Of the 26 interviews, ten were conducted via Skype video calling or Google hangouts. Eleven were conducted via phone, and five via email. Four participants also engaged in a combination of media, beginning the interview through emailed questions and concluding with a phone call to discuss follow-up questions. At the beginning of each interview, I asked the interviewee questions to make sure that they met the criteria of the sample. I also asked if they felt comfortable with the information on the IRB document and whether or not they minded if I audio recorded the session and took notes. I conducted each interview in a room alone

to ensure their confidentiality. The interviews ranged from 38 minutes to an hour and 45 minutes, with the average interview about an hour and fifteen minutes. All interviews were audio-recorded and transcribed. I also engaged in note-taking during the interview process, and generated more than 100 pages of notes by the completion of the project. Throughout the project I also journaled reflexively about the interviews, logging thoughts not only related to emergent themes but also about my own positionality and emotional responses to the interviews.

Data Analysis

Thematic Analysis

To identify themes and patterns that emerge from the data, I utilized thematic analysis. Unlike similar methodologies such as content analysis, thematic analysis highlights the interpretation of data and the examining of context (Vaismoradi, Turunen, & Bondas, 2013). Throughout the data collection phase, I took notes on potential emerging themes. As I noticed potential themes in earlier interviews, I adjusted my interview guide to incorporate questions related to these themes. Upon completing data collection, I began the thematic analysis, reading through the data and inductively searching for themes according to Owen's (1984) criteria of "(1) recurrence, (2) repetition, and (3) forcefulness" (p. 275). If participants used varying language to express similar ideas or feelings, the recurrence of these implicit meanings I noted them as potential themes. If participants repeated the same statements, phrases, or key words, I marked this repetition as potentially significant. Concepts or feelings expressed emphatically or forcefully were also documented as they may also suggest an emerging theme.

The first phase of coding, I engaged in open coding, or the "initial, unrestricted coding of data" (Lindlof & Taylor, 2002, p. 219), in which I developed descriptive categories for the various segments of speech. For example, I marked codes such as "avoiding harassment" or "disclosing gender." In this stage, I utilized the qualitative analysis software NVivo to code these sections of interviews and create the initial codebook. After coding the data into these basic units of analysis, I engaged in axial coding, or the grouping of descriptive codes into larger categories. These codes reflected larger themes related to resistance, cultural norms, and participants sense-making of gender issues in Wikipedia. Finally, I began selective coding, or applying the theoretical and analytical lenses to these codes and integrating them into research narrative.

Reflexivity

As indicated earlier, a feminist standpoint approach necessitates a reflexive posture from the researcher. Thus, throughout this project, I engaged in reflexive journaling to examine my positionality and research choices in efforts to avoid creating undue power differences between myself and the research participants. During the interviews stage, I shared about myself when appropriate in efforts to facilitate a sense of mutual engagement in meaning-making in the research process, and to "[listen] deeply and humbly" to those whose perspectives and social locations are different than my own (Mutua & Swadener, 2004, p. 8). Furthermore, I emailed the completed draft of the findings to research participants so that they could read the work before it was completed. While the primary goal of doing so was to seek their feedback about their confidentiality in the study, it also provided an opportunity for participants to respond about their representation in the writing. This also provided another opportunity to thank participants

for their participation and reflect on their feedback. When one participant voiced

concerns about confidentiality, I responded to her request and revised the draft

accordingly.

CHAPTER 4. FINDINGS

In order to examine women's participation on Wikipedia, I asked two research questions: 1) What are the lived experiences of women editors on Wikipedia? and, 2) How do women editors make sense of the gender gap? The analysis of the data demonstrates that women's experiences and sense-making is rife with tensions—at organizational, interpersonal, and intrapersonal levels. Therefore, in the next two chapters I explicate the findings according to a tensional perspective. A tensional approach refers to "the ways in which human social order is premised on tensions and contradictions that underlie apparent cohesion and point to potential social change and transformation" (Mumby, 2005, p. 22). The analysis of the data in response to RQ1 discusses how gendered organizational tensions manifest within the Wikipedia community and shape the participation of women editors. These tensions are organized according to inclusionary / exclusionary norms, adhocracy / oligarchy, and civil free speech / harassment. This chapter argues that women perceive a variety of dysfunctional outcomes as a result of gendered organizational tensions, but their strong commitment to their editing purpose supplies the means for persistence. RQ2 discusses how tensions exist within the sense-making of women editors to produce both conflicting and creative outcomes.

Organizational Tensions Theory

Scholars who maintain a tensional approach claim that organizations are inherently conflicted sites of human activity; therefore, tensions are not simply organizational disruptions or inefficiencies, but can form the loci of creative and productive possibilities for organizational actors (Pepper & Larson, 2006; Seo et al., 2004; Tretheway & Ashcraft, 2004). However, these tensions often develop according to power dynamics within organizations (Mumby & Stohl, 1991). Therefore, gendered power within an organizational context can give rise to gendered tensions that result in negative outcomes for the disempowered organizational members. Since power is discursively constructed, or constituted in and through the discourse of organizational members, gendered organizational tensions and their outcomes can be understood by analyzing the behaviors and discourse of organizational member. Discourse in this context refers to "constellations of language, logics, and texts rooted in day-to-day actions and interactions" (Putnam, Fairhurst, & Banghart, 2016, p. 2).

Productive Possibilities of Tensions

Though tensions may emerge as the result of power within organizations, they have productive potential as they "function as opportunities to change prevailing practices" (Putnam, 1986, p. 153). Therefore, recognizing these tensions forms a starting point for constructing responses to gendered power within organizational contexts. In order to embrace the productive possibilities of tension, organizational actors must first "develop a discursive consciousness—a type of awareness in which actors can formulate in thought and words what is happening and reflect on why and how it occurs" (Putnam et al., 2016, p. 68). After gaining a critical awareness of the nature of these tensions,

organizational actors can engage them. If the tension stems from power dynamics within the organization, this praxis can take the form of resisting dominant cultures and practices (Barge et al., 2008; Lorenzo-Molo & Udani, 2013; Rusaw, 2000). This form of praxis can be transformative not only for the individual as she forms a critical consciousness and resists inequality, but also for the organization as it responds to members' discursive consciousness and/or acts of resistance.

Wikipedia and Tensions

Within the context of this study, a tensional approach was chosen for four reasons. First, by framing Wikipedia's gendered sociocultural norms within the context of gendered tensions, it highlights the contradiction between Wikipedia's organizational practice and its cultural perceptions. Although Wikipedia is often perceived as an egalitarian, radically open, and an inclusive environment, recognizing the inherent nature of contradictions within organizations begins to deconstruct the idealism often associated with online organizing. Second, by recognizing women's unique standpoint on the effects of gendered tensions within organizations, examining their lived experiences further deconstructs this idealism by illuminating their perceptions of gendered tensions' detrimental outcomes on women's participation. Third, a tensional approach invites an examination of how tensions are experienced by organizational actors in order to promote organizational change. Therefore, not only does examining women's experiences of gendered tensions shed light on the true nature of women's participation within a context like Wikipedia, but examination of how these women navigate these tensions and persevere is crucial for developing appropriate organizational response.

Finally, a tensional approach is appropriate for this study is because it can be applied at a macro, meso, and micro levels. RQ1 explores the meso-level, organizational tensions. RQ2 asks about women editors' micro-level sense-making. In this case, gendered power does not construct tensions in the same way. While individuals' sense-making is certainly influenced by the gendered tensions that they navigate, the tensions that emerge between women's understandings are informed by their perceptions of society, selfhood, and the organization—they are not solely the result of gendered power discursively constructed within Wikipedia. Therefore, in this context, a tensional approach lends credence to the differing perspectives of women editors. Rather than produce a condemning account of diverging approaches to conceptualizing and addressing gender inequality, a tensional approach recognizes the inevitability of difference and urges for dialogue between organizational members, as points of tension can also form the loci of creative possibility.

RQ1: Gendered Organizational Tensions within Wikipedia

As Chapter 2 outlined, Wikipedia emerged as a peer production community with democratic aims—to create knowledge for the people by the people (Lih, 2009; Shaw & Hill, 2014). The community celebrated the ideals of egalitarian, ad hoc organizing, openness to all contributors, informal structure, and freedom of speech and expression. However, analysis of the interview data demonstrates how Wikipedia has developed norms of exclusivity, oligarchic control, and a culture of harassment. These aspects starkly contrast Wikipedia's democratic ideals, demonstrating inherent contradictions within the organization. As this chapter examines three core tensions within the organization: (a) inclusionary / exclusionary norms, (b) adhocracy / oligarchy, and (c)

civility in free speech / harassment, it explicates the ways in which gendered power constructs these tensions and their perceived outcomes on the participation of women editors.

Tensions and Underrepresented Groups

According to organizational scholars who take a tensional approach, when tensions emerge due to power imbalances within the organization, underrepresented groups likely experience the negative effects. For example, Pfafman and Bochantin (2012) claim, "While inconsistencies and contradictions are everywhere, the gendered paradoxes of organizing are particularly problematic for women" (p. 576). Therefore, women's experiences with organizational tensions differ from men's experiences (Allen, 1996; Bullis & Stout, 2000; Dougherty & Krone, 2000) as women experience the effects of power differently (Dougherty, 2001a; Fine, 1993; Marshall, 1993; Parker, 2001). For example, women are more likely to experience gendered "double binds," such as the "professional paradox," (Pfafman & Bochantin, 2012), where women who act "feminine" appear unprofessional in a masculine work environment and women who take on traits of masculine professionalism are perceived as unfeminine (Wood & Conrad, 1983). Since women experience organizational power differently, they possess unique insight into gendered tensions within organizations.

Inclusionary / Exclusionary Norms

Wikipedia emerged as the "encyclopedia anyone can edit"—a crowd-sourced project challenging the predominance of the corporatized reference industry (Lih, 2009). "Openness to external members" is a core Wikipedia principle (Hemetsberger & Rheinhardt, 2009, p. 1005). Even the technology reinforces the cultural value of inclusion;

the wiki software enables anyone with an IP address to edit the content from the cloud. No formal membership or knowledge of standard programming languages is necessary. Furthermore, contributors edit anonymously, either tagged by their IP address or a self-defined username. Due to these features, theoretically, members cannot discriminate based on age, race, gender, or education due to Wikipedia's technological design and cultural priority on openness.

However, as Wikipedia grew in size and scope, researchers took note that "exclusionary practices evolved with Wikipedia itself" (Adams & Brueckner, 2015, p. 1). By 2011, the average Wikipedian was a tech-savvy American or European white male in his thirties (Wikimedia, 2011). Such a finding suggests that a gendered tension emerged as result of power dynamics as women (and people of color) were locked out of the "inclusive" editor community. My analysis of the interview data demonstrates the gendered nature of the inclusionary / exclusionary organizational tension.

Hacker room culture. The interviews with women Wikipedians illuminate how these exclusionary norms manifest within the Wikipedia community. Therefore, the analysis of this tension focuses on the cultural practices of Wikipedia members as opposed to the structural aspects that affect women's participation. My analysis illustrates that many women experience an exclusionary, masculine culture within Wikipedia. Given that the average Wikipedian is a tech-savvy, white, young adult male, I refer to the Wikipedia atmosphere not a locker room culture, but a "hacker room culture." Whereas locker room culture involves sexual humor and the celebration of a homosocial environment (Dellinger & Williams, 2002), hacker culture has been characterized by competition (Hapnes & Sorenson, 1995) and termed a "male cult of technology"

(Wacjman, 2001). Therefore, in the context of Wikipedia, I argue that a hacker room culture is comprised of aggressive argumentation as masculine performance, heteronormative sexualized images, and the marginalizing of women members.

Just as power is communicatively constructed, so too do feminist scholars argue that gender is constructed, or 'performed,' through language and action with power relations inherent in these performances (Butler, 1990). Therefore, performing masculinity entails the enacting of culturally-established norms of masculinity, such as men being tough, competitive, or dominant (Mahalik, Locke, Ludlow, Deimer, Scott, Gottfried, Freitas, 2003). Whereas other scholars have noted the argumentation that characterizes Wikipedia, the interviewees in this project explicitly connected this competitive communication style to a performance of masculinity and the overall hacker room culture. As Sharon notes:

> And so I think that Wikipedia has a very male culture. It's the boys on…it's elementary school boys on a playground. And it's a world where arguing about the rules is part of the fun...and if you're not comfortable with conflict and you are not comfortable with debate, you are not going to be comfortable on Wikipedia unless you are lucky enough to land in an area of where there's not very much of that.

Similarly, Becky claims, "the macho culture sets the tone for hostility" on Wikipedia. One interviewee noted that she "typically don't have conflict with other editors because this is the dusty part of the internet. It's the dusty corner of Wikipedia. So they're not going to be eyes on these entries, and there's not going to be like "how big is

my penis experience." By linking aggressive editing with a "how big is my penis experience," she connects the hostile editing interactions to a competitive, homosocial display of masculinity.

Becky, as well as other women Wikipedians, worry that this hostility is a primary driver of editors off of Wikipedia, claiming "the tone, or the conventional tone, it can be very combative and unnecessarily hostile sounding" and therefore Wikipedians need to "reduce the aggressive, policing behavior and usage of hostile sounding (intentional or unintentional) language." Not only do interviewees link this hostile discourse to a performance of masculinity, but their experiences also demonstrate how this discourse is uniquely gendered. For example, three interviewees cited a high-profile dispute in which a female Wikipedian contested the casual use of the word "cunt" by male editors in conversations with herself and other women. An argument ensued, as some editors using this verbiage defended their use of terms of "cunt" and "twat" by claiming they "merely were speaking in generalities, so it was ok!!" (Felicia). As these gendered slurs are so commonplace, they do not register as harassment for many Wikipedians. Instead, they serve as normative language for argumentation on the site. Jen describes how this gendered hostility cultivates a toxic culture that can push women out:

> I think that so few women edit because A, they've heard about how toxic it is, B they experienced how toxic it is, and it's toxic in ways that are more gendered than the men realize, like they're always trying mansplain like, "Well, I treat all the women around here just fine," and it's like by doing that you are contributing to the toxic environment. … literally there are debates over whether or not you can call other human beings a cunt—in a supposedly collegial environment.

When you're having a debate there's no room for like, "Okay, who's doing the

emotional labor," … like literally we're trying to keep people from calling names.

We're not even Feminism 101, we're like first grade, learning to play nice in the

sandbox.

In addition to the gendered hostility, the hacker room culture consists of

normalized—or celebrated—sexual imagery. Multiple interviewees cited the surplus of

sexualized images in the Wikipedia Commons, the repository of free images uploaded for

use in Wikipedia articles. For example, Jen describes the sheer volume of images of

naked women, sorted into categories such as "naked women with red hair, naked women

standing by fridges, naked women this that and the other." However, when she needs to

find an image related to women's health, she has trouble locating images of women that

are not sexualized. According to Jen, Wikipedia has "five times the pictures of penises on

the human penis article than we do a vulva." Sharon discusses how Wikipediocracy, a

Wikipedia criticism site written by Wikipedia editors, is a common space for sexualized

images to emerge. She describes the entry about Wikipedia's brassiere article:

It's like all of a sudden, this is not the place for you to put in 25,000 booby

pictures. … You know, they just kept putting in pictures of women in bras. Bras

and more women in bras. Porn stars in bras. You know, women with boob jobs

that were falling out of their bras. And then when you try to move this stuff out

you get these little trolls that says, 'Oh no! Wikipedia's been censored!' And

trying to deal with those idiots is a nightmare.

Her story, and the stories of others illustrate the abundant sexualized imagery within Wikipedia that perpetuates the hacker room culture.

Finally, due to the male culture on Wikipedia, women are often treated as tokens or the "other." A primary way in which this takes place is through the default assumption that all users are male, illustrating that the male Wikipedian is the primary subject and all women editors are an anomaly, an aberration from the male norm. Many interviewees described their annoyance at others misgendering them, even when their usernames were stereotypically female. As Gena explains, "people tend to assume people are male by default on Wikipedia because the gender ratio is so skewed. People would refer to me with he/him pronouns. People sometimes also contacted me to express surprise when they learned that I was not a man." Gena's statement makes explicit the gendered assumptions about the community, particularly as some editors have made an extra effort to tell Gena of their surprise about her gender. Clearly, on Wikipedia, to be female is to be a rarity, rather than part of the general editor community.

Similarly, one editor described how this 'othering' can take place "offwiki", in places such as Wiki "meetups" or conferences where the hacker room culture moves offline. Rachel describes her experience as a Wikipedia conference:

> This one guy created a session called "What Do the Women Do," and I was like, first I want to be all sarcastic about it, like we birthed the baby and we birthed the Wiki babies and raised the Wiki children, like why would our experience be any different than what a man does, and why is that assumption made? Is it because you don't think we can do it or is there some other reason? And that really got to me.

By establishing a separate session to learn about the experiences of women, even in an offline context, male Wikipedians establish that a woman Wikipedian is mysterious, different, the "other." Such misgendering and examples illustrate the culture of Wikipedia as a claimed male space, where women are separated and marginalized.

Perceived Outcomes: Isolation and Attrition

The interviewees demonstrated how they perceive the male-dominated Wikipedia community to cultivate a culture in which they feel unwelcome. These messages may be implicit or explicit, but they still wear on women editors. Natasha, a woman editor well-versed in male-dominated workplaces describes how the feelings of marginalization are subtle, but powerful:

> And I felt the same feeling on Wikipedia, that this was kind of "men's work" and a lot of things were done in a way that felt comfortable for… you know, what was predominately men to do them. So it was just kind of a little off putting, you know. It's so vague to describe because it's not like there wasn't a bathroom for me to use—you know the typical things that we traditionally thought of as barriers for women getting involved. But it really showed how much more subtle things can be that cause people to feel unwelcome and uncomfortable, you know.

Then Natasha directly links her feelings of marginalization to her productivity on Wikipedia. She states, "there were certainly times where I felt like I didn't belong there. You know, and my edit count went low at points in time, when I felt unhappy." Even a

highly productive, well-regarded editor such as Natasha contemplated abandoning the project due to her feelings of marginalization in Wikipedia's masculine environment.

While Natasha remains an active editor, other interviewees discussed their decisions to leave Wikipedia after feeling unwelcome. One woman who described her isolation as the only woman who edits in her male-dominated content area has taken extended breaks from Wikipedia, often leaving for months at a time to edit in other peer-production communities. Similarly, another editor who has since abandoned consistent editing on Wikipedia speaks about her feelings of loneliness online as well as off—particularly at meet-ups with other editors:

> I guess the other thing is being a female editor in certain communities and stuff felt lonely because when I went to Wikimania there weren't a lot of women. I felt like I stood out, and I actually ran into somebody at a conference that I knew from outside the Wiki community. She was there with her boyfriend who worked for a company that was sponsoring the conference and she was shocked that I knew how to edit and stuff. She was like, 'Oh you know how to do this?' and I'm like, 'Yes, why else would I be here or why would I go to a Wiki conference by myself if I don't know about Wikis?'

In sum, the hacker room culture of Wikipedia, whether through the aggressive argumentation, sexual imagery, or marginalizing of women editors, makes women feel unwelcome, leading to feelings of isolation and that affects their work on Wikipedia—and ultimately, their presence and participation on the site generally.

Adhoc-racy / Oligarchy

"Flat hierarchy, decentralization, little managerial control, and ad-hoc creation of informal multidisciplinary teams" are terms that have been used to describe Wikipedia's organizational structure (Konieczny, 2010, p. 277). These terms match the popular conceptions of wikis and online peer production groups as egalitarian, participatory, and democratic (Arazy et al., 2014; Lih, 2009; Shaw & Hill, 2014). Conversely, however, an increasing number of scholars have also described Wikipedia as a "hierarchy of administrators and arbiters" (Gleave, Welser, Lento, & Smith, 2009) and a "disciplinary system of power distribution" (Niederer & Van Dijck, 2010, p. 1373). Arazy et al. (2015) even created a typology of the power positions within Wikipedia, organizing them into twelve different hierarchical roles that characterize various members' places within the community. Recent studies of Wikipedia have shown that its hierarchy is better known as oligarchy, or a leadership structure in which a small group of elite members exercise disproportionate power over others (Arazy et al., 2014; Heaberlin & DeDeo, 2016; Shaw & Hill, 2014). As Heaberlin and DeDeo (2016) describe, "early users later form an oligarchy that monopolizes power, subverts democratic control, and comes into increasing conflict with the larger collective." In the vacuum of leadership, the early adopting few establish their authority over other users, and use this privilege to "restrict contributions from experienced community members" (Shaw & Hill, 2014, p. 1). Furthermore, these users are more likely to fill the administrative positions on the site, the roles which have special privileges such as arbitrating disputes, blocking or banning users, creating policies, or protecting or deleting pages (Kriplean et al., 2007).

In addition to maintaining powerful positions within the community, these early users establish the norms for the site, linking oligarchic control—the form of governance—to Wikipedia's bureaucratic structure, or the means by which the control is carried out. According to Heaberlin and Dedeo (2016), "Norms matter on Wikipedia in ways that make it impossible for participants to ignore: it is the system of norms, rather than just laws, that dictates what content is or is not included, who participates, and what they do" (p. 2). These authors describe how the norms established by the male power users directly affect the participation of other members. Therefore, the early group of Wikipedians cannot be separated from the structure of Wikipedia, as they have and continue to maintain disproportionate influence over its operations.

Gendered Oligarchic Control

Early adopters establish norms. More importantly, the experiences of women demonstrate that these norms are not politically neutral, but reflect the gender identities—and agendas—of the all-male original group of Wikipedians. Therefore, by examining the experiences of women on the site, we can better understand how power constructs this organizational tension of adhocracy / oligarchy in gendered ways.

Analysis of the interview data showed that women editors are highly aware of the disproportionate influence of a small group of power editors, both in maintaining leadership positions and in establishing norms. Becky states:

I think just partly because it remains a very small, sort of homogenous community of admins and editors. I mean the numbers are comparatively small in terms of how, you know, it's just a small group of guys who've been there from the very beginning. Any small group that's very accustomed to talking to each other is just

going to have certain patterns and conventions that they're going to, you know,

and it just takes a lot of effort for people to explain to them, I mean, people can be

very stubborn about how they think, you know, what the rules should be in terms

of how this space is managed.

Becky speaks to the enduring power of these elite users to influence community norms

and policies, expressing that "It often feels like Wikipedia really is just ten (white) guys

who I've interacted with (positively and negatively) online, face to face, or both."

Similarly, Natasha describes the early years of Wikipedia and the influence of male early

adopters in establishing organizational norms. According to her, this process "kind of

made one group of people really, really comfortable and many other people feel

uncomfortable, including many women … it just was not the way that they would ever go

about organizing something if they had been the boss in the beginning."

Not only did this early group of Wikipedians 'get in at the ground level' and

establish organizational norms, but the participants believe that these early users continue

to actively reify these norms due to their powerful positions within the community.

Becky states, "The Wikimedia Foundation & Wiki Edu's commitment and privileging of

this core group and its expectations has become increasingly problematic when

considering future aims." Amanda uses more colorful terms, describing this group as a

"core bunch of asshole trolls who everyone is afraid to take action against … because

there's been a number of cases where these trolls have been actively empowered." Thus,

these participants claim that this core group not only gained influence at the ground level,

but continues to maintain social power.

When Felicia discusses this group of early adopters, she highlights one of the secrets to their power—the cliques they've developed around themselves. She states,

> The biggest issue is that the larger number of decent and reasonable male editors allow themselves to be bullied by a tiny minority of Alpha Male editors and administrators and their allies and hangers on. … There have not been enough willing to do the tough work needed to either control or remove the most dominating, manipulative and abusive male editors (think Donald Trump as an editor).

Felicia describes how these power editors have "allies and hangers on," describing how these early Wikipedians form posses around themselves. That way, even when this minority of "alpha male" editors gets punished by an administrator for "bad behavior," once he "mobilizes his troops," the administrator "slinks away." Thus, the participants explain how they believe this original group of editors originally gained and continue to maintain their power.

Gendered norms in Wikipedia. Forming these "power cliques" is one of the norms established by early Wikipedians (Becky). Due to the consensus model, where content changes hinge on consensus among editors, edit wars of attrition are waged when editors disagree on content; therefore, the side with the most—and most aggressive— editors generally sways the results. Ashley explains how this works—a "group of people who dedicate themselves to arguments" can outnumber the opposing side and attempt to "wear everyone else down" over time. Tammy sums up the result quite concisely, claiming that ultimately, "Wikipedia is a numbers game."

Due to the consensus model, most editors develop alliances with others so that they have support if they clash against other editors. According to Tammy, these users are "close knit, they have hoods," and these hoods create an "advantage" when arguing points on Wikipedia. However, the interviewees identify the explicitly gendered nature of this form of governance/community norm. In a male-dominated environment where users develop "power cliques," women are at a structural disadvantage. Since they are the minority, when women experience gendered harassment or discrimination within Wikipedia, they have few other women to solicit for help in representing their perspective. Rose cites a story of woman editor who advocated for a more gender-neutral labeling of article categories, explaining:

> When my friend persisted with her arguments, people started calling her names and the discussion went in a way, and then the people formed a gang of people, I mean they were divided in their opinion, and my friend was sort of alone against all these men who were trying to conspire against her.

Demonstrating the disproportionate sway that powerful editors have within Wikipedia, she adds, "the identities of the harassers were well known, but they chose to do it because they were in a big group and they knew that they were the majority and they were going to win the argument."

Stacey speaks of a similar experience, describing how a fellow woman Wikipedian lost in her bid for an administrator role, a position that requires voting from fellow editors:

> If everything was exactly the same but the community knew that it was a guy, I have a feeling that there may have been negative commentary about the editor but

that, because at least 85% of the editors are male, they would have banded

together to make sure this person succeeded in the bid to be an administrator. I

think that's the case. I may be wrong, and it's possible to still have not succeeded,

but my gut tells me that it's not because she was a woman that she didn't get it,

but because she was a woman there weren't enough other people standing behind

her to push down the naysayers. She didn't have a strong enough allies who

would cobble behind her, and I think that men have the opportunity to create a

bigger cabal of supporters just because the numbers are there. They can create

more of a community behind them that would push them over.

The statements from the participants demonstrate that power cliques stemming from the

community's oligarchy appear to cement male control within Wikipedia and marginalize

women.

Oligarchy enables gender-based discrimination. In addition to women being

constantly outnumbered in the "numbers game" of Wikipedia, the oligarchic

organizational structure lends itself to discrimination against women. Men in socially and

structurally powerful roles can more easily discredit or disregard the work of women.

Amanda describes how she had to 'prove' to the other male editors that she was

competent enough to edit in their topic area:

If you're dealing with the guy in power who's making all these sort of promises,

it's so much easier to go with him by default even if all the evidence says

otherwise, because

guys in power tend to trust other guys in power even if the metrics are there—like

they've done the research on that with women. Women have to produce in order

to be assumed to be competent, guys get value-judged based on their context, and

they were just deciding by context, which is bullshit, and they didn't value my

contributions correctly.

Similarly, Becky believes that male editors "take women less seriously" and male

administrators use a "double standard against women in evaluating their edits [and]

behavior, levying sanctions against them." Felicia reiterates this claim, regretting that she

edited under a female name. As a result, she states that she was "taken less seriously and

attacked more frequently than men," and "double standards were used against me in

evaluating my edits, behavior, etc." When Tammy approached a male editor about

mistreatment she received from other editors, he responded with "men will be men."

These interactions participants reported demonstrate their perceptions of male

administrators leveraging their power in gendered ways.

Elizabeth also expresses a direct link between her gender identity and her

perception of other editors' assumptions of her credibility. She states, "from the

beginning (of when I became a truly active editor) it was obvious that my input was

inferior because I was a woman." She goes on to describe how her decision to contest a

powerful, well-known editor in a traditionally masculine topic led to his declaring that

she was too "emotional" and "biased" to work in that particular content area. Similarly,

when I asked Christa how she feels her gender has affected her work in Wikipedia, she

said: "It has been used to devalue my opinion in some interesting ways. And I say

interesting ways because I've had my gender tossed up at me … as reasons for why my opinion on issues affecting women editors doesn't matter because I'm a woman so I'm biased." She, like Elizabeth, feels she has been discredited and accused of being biased due to her gender. Nicole describes a scenario in which she made an administrative decision later that angered a male editor. She describes how his response felt gendered— that if she had been a man, "they wouldn't say 'oh, you don't know how to do your job,' necessarily. They may say you're an asshole or… they may say you're a jerk, but they're not going to be like, 'hey, you don't know how to do your job'" Again, she identifies the gendered nature of others' calling into question the legitimacy of her work on Wikipedia.

Even women who in power are not safe from the 'strength in numbers' that male editors leverage to discredit their work. As Natasha describes, "And so there was this, kind of a team of people who were harassing me together. It was pretty icky at the time. And um, yeah. But they would… they were just trying to look to see if there was anything about me, that made me be incompetent to judge them."

Therefore, the tension of adhocracy / oligarchy becomes gendered as women editors perceive that male-dominated groups of users establish the norms, perpetuate the norms, and leverage them against women—placing the adhocratic ideals of Wikipedia into tension with male oligarchic control.

Perceived Outcomes: Emotional Exhaustion and Attrition

The gendered oligarchic control of Wikipedia wears on women—silencing them and erasing them from leadership positions, and sometimes Wikipedia altogether. Due to the number of male power cliques, women's voices often go unheard in editing disputes. Due to the number of male administrators and power editors, women are less represented

at this level, more likely to be denied or shoved out of leadership positions, or become banned from particular topics or the site. As Felicia states, "Wikipedia also has to find a way to deal with cliques of editors and administrators who go after people they don't like to harass and drive them off - or get them banned if that doesn't work." As a whole, the gendered oligarchic control of these male editors illustrates how women's participation, in this case, is directly linked to the gendered organizational structure that silences and erases women.

Similarly, the emotional capacity necessary to repeatedly justify the validity of one's work leads many women to avoid areas where their edits will be questioned, erasing their perspectives from those topics, or causing them to abandon editing completely. Several participants discussed the emotional exhaustion involved in editing disputes with powerful male editors. For example, Maria explains a situation where she fought for a page on a transgender activist to stay on Wikipedia, explaining that "it was like I went through the ringer on this one." Diane describes how, "In a male dominated environment, I spend a lot more time having to defend that the work I'm doing is valid, even if I'm an expert. So I don't want to waste my time, and as a female I'm not willing to go to battle nearly as often." For Diane, she's stopped much of her editing because defending her opinion is a waste of her time. The gendered discrediting of her work is directly tied to her participation. She then links this experience to women's participation on Wikipedia generally, stating, "If the goal is to increase participation, then you do that by encouraging participation. Not shutting it down."

Civil Free Speech / Harassment

Given Wikipedia's emergence as a project populated primarily by programmers and tech-savvy men, the hacker ideals of freedom of speech, information, and expression continue to pervade Wikipedia (Lih, 2009). In this context, however, civility is assumed to temper free speech. Civility is one of the "five pillars" of Wikipedia, or a core principle that governs community norms and policies. In extreme cases, editors can be banned from topics, conversations, even the entire site for uncivil speech or conduct. However, despite this principle of civil discourse, Wikipedia has increased in hostility since its inception. In a 2015 report on harassment, Wikimedia shared that 38% of the respondents had been harassed, and over 50% had witnessed the harassment of others (Wikimedia, 2015). While many organizations must negotiate the tension between free speech and civil discourse, freedom of speech has facilitated the spread of harassment within Wikipedia—particularly gender-based harassment.

This tension, like inclusionary / exclusionary norms and adhocracy / oligarchy, emerges according to power dynamics within the community. For women editors, they perceive that free speech environment enables gender-based harassment. For example, when asked why she believed there was so much gender-based hostility in Wikipedia, Natasha stated, "Well I think that partly it's been enabled by people who are very strong believers of free speech." Similarly, Andi described how Wikipedia's libertarian commitment to free speech and expression creates a "delightful playground for cyberbullies." While the free speech environment provides fertile soil for harassment, the interviews evidenced more specific themes for how gender-based harassment occurs within Wikipedia. More specifically, participants discussed what they perceived to be the

various "ingredients" for harassment. While gender relationships are more complex than any categorizing can accurately depict, a simplified recipe for how to attract gendered harassment on Wikipedia is as follows: 1. Be a woman editor, 2. Edit in highly visible or controversial areas, and 3. Maintain a leadership role.

Formula for Attracting Gendered Harassment on Wikipedia

  Step 1: Be a woman. While harassment is an aspect of Wikipedia environment that affects nearly everyone, women editors point out the ways in which the harassment they receive is gendered. Therefore, the first step to receiving gendered harassment on Wikipedia is to simply exist as a woman. Observe the following interchange about Amanda's friend who was receiving harassing emails:

  Interviewer: I'm sorry to ask again, what is it exactly that she did?

  Respondent: Existed.

  Interviewer: She just existed and so she got these emails?

  Respondent: Yeah, I don't actually know what she did, like this has been going on

   for like years.

In addition to statements such as Amanda, a number of participants mentioned the "safety" of editing anonymously, illustrating the significance of someone's gender as reason enough to attract harassment. Ray stated that "There are enough examples of women being harassed on Wikipedia … that some may as a result prefer to hide their gender." Similarly, Felicia adds, "Many women go out of their way to keep others from knowing they are women just to avoid the abuse and hassles." When discussing the stalking that

takes places on Wikipedia, one editor mentioned the appeal to hide one's gender, stating

"things are pretty smooth and everyone thinks that your just another guy."

This particular editor speaks from experiences as she—like others—have edited in

contexts disclosing that they are women and in those where they have not disclosed.

Consider the interaction between myself and Ashley:

Interviewee: I prefer not disclosing my gender.

Interviewer: Hmm, may I ask why?

Interviewee: Umm safety.

Interviewer: Do you mean just to avoid kind of unwanted attention or negativity?

Interviewer: Right.

When I asked Elizabeth about her decision to disclose her gender, she said "The first time,

I don't think I gave it any thought. I knew enough not to give my real-life name or home

address, but it didn't occur to me that disclosing that I am a woman would cause me any

trouble. When it did cause me trouble, I retreated briefly." Some women mentioned that

they experienced better treatment when other editors did not take the time to learn their

gender identity. Like Maria states about her interaction with another male editor: "I think

that he was a lot more civil to me actually because I use a gender neutral name, but I

don't know."

In sum, while it may seem redundant to say that the first step to receiving

gendered harassment requires identifying as a woman, it is important to identify that

women have harassment levied at them for no other reason than their gender. If

harassment on Wikipedia is normative, then the harassment women receive can be

directly linked to their sheer existence on the site as a woman. Throughout the interviews, the participants provided more detail in how the harassment they or their peers receive is distinctly gendered. According to Jen, she receives "extra hate because I'm a girl, you know a lot of like 'nice titties' kind of crap, like, 'I'm going to rape and murder your family' and that kind of stuff. The dudes don't get as much as like raping and murdering and 'you only got what you have because of your appearance.'" Jen also discusses the harassment one of her friends on Wikipedia receives:

> She got like four emails, and the first one was, "How dare you wear sneakers? I'm going to murder you if you ever wear sneakers," and the second one was like, "I want you to have my babies." The third one was, "I'm going to marry you, I'm going to find you and I'm going to marry you," and the fourth one was, "Suck me, sexy hot bitch."

In this example, three of the four emails were sexual, emphasizing the gendered nature of the harassment received by this editor. When describing the difference in the harassment she receives, this editor claimed, "When people do insult me onwiki—as happens to anyone involved in various disputes, again, this is seen as "normal" onwiki—people are likely to use subtly gendered terms." She also states that in other Wikipedia contexts she receives "persistent harassment which is almost always gendered." Other participants reported the use of gendered insults being levied at them—phrases such as "queen ass cunt," or terms such as "whore," "bitch," "slut," or "twat." Jen summarizes some of the gendered harassment she receives: "You are a cunt, you are a bitch, you are a whore, you are fat." Several reported instances where editors had insulted their appearance (e.g.

Christa, Jen, Gena), made comments such as "I'm going to fuck you—no wait—you're ugly" (Jen), or stated the participant edits Wikipedia because she cannot get a date (Hannah). As these insults are either gendered slurs, sexualized, or focused on women's appearance, they are distinct from general harassment other editors receive. Furthermore, another participant stated that not only do women receive distinctly gendered harassment, but women editors face "additional hostility and harassment" than men.

In addition to this verbal harassment, participants reported experiencing or witnessing a variety of other types of severe harassment, which also takes gendered forms. Interviewees cited acts such as "doxxing" (the posting of someone's location and other personal information publically), threats of violence, usually taking the form of rape or murder, and various graphic variations thereof. Participants mentioned being stalked, their family members' being threatened, and harassers calling their employers in attempts to get them fired. In a fairly extreme, clearly gendered form of harassment, a couple participants mentioned that pictures of themselves or other women editors had been posted on or created into porn sites. Therefore, while many Wikipedians experience the gendered outcomes of the civil free speech / harassment tension, the negative effects of gendered power is on display when considering the extreme harassment various women Wikipedians receive.

Finally, the pervasiveness of gendered harassment was even illustrated by some of the women who had never received any. In conversations about harassment, they made statements such as, "I have been fortunate in not being specifically targeted (as a female target, anyway)" (Becky), or "I have been lucky to not gone through some of the terrible or bad experiences that many editors and women editors also go through" (Stella). The

language of "fortunate" and "lucky" illustrates the prevalence of gender-based harassment. When speculating as to why they have avoided harassment, several women made comments such as: "maybe I don't do things that are controversial enough" (Stella).

Step 2: Edit in controversial areas. A majority of participants spoke to the high likelihood of receiving harassment when editing in controversial areas as a woman. Andi explains that these spaces are often warzones, claiming that the "warfare takes place between people who do have a point of view on that subject and are trying to slant the article." Editing such an article places a person in a hostile *and* highly visible environment. Unsurprisingly, some of the worst cases of gendered harassment on Wikipedia have emerged from highly controversial topics such as Gamergate,[1] feminism, or fire arms. One participant even used "recipe" language when discussing harassment in controversial articles on Wikipedia: "There is a recipe. And it's sort of like if you go on Twitter and you use #gamergate. If you do that you will get harassed. So there are equivalences in Wikipedia." Sharon also uses language that emphasizes the inevitability of harassment in hot topic articles: "There is no question that if you are going to edit articles on you know sexual assault, pornography, women's bodies, human sexuality you are going to be just plain be facing trolls." Added to the list of controversial topics that form hotbeds of harassment are "feminism, anything connected to feminism. Anything connected to LGBT" (Maria), "highly political topics … women scientists" (Amanda),

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[1] Gamergate refers to a movement among men in gaming culture seeking to protect their existing cultural norms from those advocating increased diversity and less sexism in gaming. Individuals associating with #gamergate have participated in large-scale harassment campaigns against women who have spoken publically about sexism and diversity in gaming. This harassment has involved doxxing, severe rape and death threats, as well as vandalizing Wikipedia pages, writing in sexist misinformation about women in the gaming industry (McDonald, 2014; Lewis, 2015).

"human sexuality" (Sharon), "Barack Obama," and "Christianity" (Rose). Rose lays out

what the outcomes might be if a woman does edit in one of these areas:

> If you're writing in a controversial article and if you're a woman, you're likely to
>
> be dragged into conversations on your user page, on the talk pages of the article,
>
> and people are like going to call you foul words, people are going to diminish
>
> your work, people are going to do a lot of bad stuff to you.

Similarly, one participant who claimed that she has not received much harassment herself,

describes her emotional reaction to observing the sexual harassment affecting some

younger women involved in editing the highly controversial Gamergate article:

> And I think that the women who edit the articles on human sexuality get targeted
>
> very badly and inappropriately and get bullied. I think that this thing with the
>
> Gamergate case, I was kind of hovering on the fringes of that case and watching it.
>
> That dynamics was a good example of a generational divide. That was one of
>
> those times when I had a "Toto we're not in Kansas anymore" moment, realizing
>
> that Holy God, what these young women in the tech community are putting up
>
> with, with these under-socialized trolls who play videogames in their mommy's
>
> basement... I was shocked. I was absolutely shocked at that in the 21st century
>
> that young women should be subjected to that level of sexual harassment. I mean
>
> I was just appalled. I was absolutely appalled.

Finally, the risk of harassment in these articles is illustrated by the sheer number of

women who mentioned that they do not go near them because they know that they're

hotbeds for harassment. Sharon uses the phrase "I'm a chicken"; others have stated they have avoided harassment because "the edits I have made have not been contentious" (Stacey), or they edit in areas where "there's less traffic in terms of the police that look at it" (Maria).

Step 3: Assume a leadership position. While many women explicitly stated the dangers of editing in contentious articles, the respondents also perceive that women in positions of leadership are especially likely to receive harassment as they a) are highly visible, and b) make disciplinary decisions. Gena mentions that the harassment similar in intensity to hers is often "leveled at other women in [leadership] roles (arbitrators, administrators)." Similarly, Natasha states, "I definitely feel like I was targeted because I was a woman with authority on Wikipedia. I mean there were people that were resolved it's a really dandy thing to harass me." According to Gena, "Just about any active editor has experienced [harassment] to some level—although the really sustained and targeted harassment is more rare—so there's definitely the feeling from many editors that anyone who's 'high profile' will have to deal with it."

Jen describes what it is like to experience an upsurge in harassment after moving into an administrative position: "It's a little ridiculous. It's like oh, I have these haters, where did they come from?" Women interviewees who serve in administrative roles describe a different level and form of harassment levied at them—usually as a retaliatory strategy by the men on the other end of their decisions. As these women administrators ban users, mediate or arbitrate disputes, and maintain technical or organizational privileges, they perceive that they become the targets for the angst of other editors who often resort to gender-based harassment to push back against them.

Perceived Outcomes: Erasure & Emotional Distress

When discussing harassment, the interviewees described its distressing nature. They also reported that women appeared to lower their edit counts or leave the community after receiving harassment or witnessing others receive it.

The responses of participants demonstrate the emotional distress caused by the gendered harassment they received; several participants identified harassment as the clear "lowlight" of their all their experiences on Wikipedia. When Jen jokes about her response to the harassment, she hints at its distressing nature, mentioning the times she has "curled up on [her] bed crying, calling [her] boyfriend, eating ice cream." When interviewees were harassed, several mentioned "crying" (Jen), talking with friends (Gena), and taking breaks from editing all to de-stress (Natasha). Furthermore, some of these women described the emotional weight of anticipating future harassment, a stressor in and of itself. Consider Amanda's statement: "It's like I'm waiting for the day when somebody gets ticked off enough to bring my personal shit into my Wikipedia experience, and it's stressful." Other editors also mentioned feelings of "paranoia" that others would discover aspects of their personal life to weaponize against them.

Given the distressing nature of gendered harassment, many women spoke about how they abandoned consistent editing, considered leaving, chose to leave, or mentioned people who have. For instance, Amanda states, "In order to avoid harassment and my paranoid fears about that I stopped editing a lot." One interviewee was very direct: "I would gladly never see Wikipedia again" (Ashley). Even for women who continue to edit, they recognize that "there are many people who would have stopped" after receiving such severe harassment (Natasha). One editor mentioned she only stuck around because, "I

was lucky in the sense that it got set up right, that when I got harassed, it was by somebody who people recognized was being pretty bad and they were willing … and they reached out to me and talked to me about it. That isn't always the case. There are people who are very isolated, you know, and feeling like they aren't getting the support that they need" (Natasha). Similarly, Rose reflects on her early days of editing and states, "If I had to face any harassment, during the beginning days, I was likely to stop editing altogether."

As a result of harassment, women are silenced, at times erased from Wikipedia due to harassment. Because women are harassed away from controversial topics, like Felicia, who mentions that she abandoned editing in controversial areas because "fighting trolls" was "just not worth [her] time", their voices go missing from highly trafficked topics with great cultural significance. Because women in leadership roles are targeted, women are harassed away from pursuing and maintaining these roles. Furthermore, a few participants discussed how exposing harassment breeds more harassment, so many women choose to keep quiet rather than expose the sexism they experience. Laura describes how this is "the worst position." She feels that she can't identify the harassment "because I'm going to invite fucking harassment for myself. So, for women it's all a question of keeping your fucking mouth shut, because otherwise you can't function, like you can't say anything." Natasha reiterates her concerns, stating:

> The system is set up in a way that seems to bias against women. But women speak about [gender bias] it draws out the harassers. It puts kind of a target on their back, and the discussions really disintegrate, or the women are harassed to the point where they stop talking, or they feel like they're not effective in getting

their message across because of the fact that there's harassers circling around or

misogynist people participating in the discussions as well.

Since women are harassed for raising issues of harassment or gender bias, these

issues are silenced, effectively short-circuiting the potential for organizational change. In

this way, harassment becomes a powerful tool—perhaps the most powerful tool—for

silencing, even erasing women editors, and protecting gendered power within Wikipedia.

Intersecting Tensions: Compounded Effects

While this chapter has analyzed each gendered tension and their perceived

outcomes separately, the full force of their effect is clearest when considering how these

gendered tensions interlock, producing a hegemonic system of power that women

perceive that they are forced to navigate. For example, a woman who chooses to run for

an administrative role opens herself to the scrutiny of community and potential

discrimination due to the "numbers game" aspect of the Wikipedia environment. Should

she achieve the leadership position, she will likely weather the harassment that women

administrators receive. In this case, the potential outcomes of the oligarchy and

harassment have compounded. A woman in such a situation would likely perceive a

qualitatively different emotional and psychological effect.

Just as the tensions intersect produce different emotional outcomes, so the larger,

macro-level implications of this system of power intersects as well. When inclusion /

exclusion, adhocracy / oligarchy, and civil free speech / harassment, are managed

according to the gendered power within Wikipedia, it appears to create a system of

silencing women. Therefore, in order to understand the nuanced nature of women's

participation within Wikipedia, examining their experiences of these gendered tensions is essential.

Transcending Tensions and Participating Due to Purpose

After describing the exclusionary norms, the oligarchic structure, and the rampant gendered harassment, it is not surprising so few women edit Wikipedia—particularly since the interviewees demonstrate how these gendered organizational tensions link to attrition among women editors. Perhaps a better question is why do the existing women persist in the face of such isolation, discrimination, and harassment? However, the analysis of the data demonstrates that women persist despite these larger organizational tensions and their debilitating gendered outcomes due to the deep sense of purpose they derive from editing Wikipedia.

Persisting Due to Purpose

At the beginning of the interview, I asked the participants how they began editing, what motivates them to continue. Many of the interviewees mentioned their commitment to providing free information that is accessible to anyone, making statements such as, "I'm a big advocate of public dissemination of knowledge" (Karen), or "I believe strongly in the idea of freely available knowledge, and I like to enable the community in providing it" (Gena), and, "I enjoy giving people the opportunity to people to learn about things that perhaps they wouldn't have seen otherwise" (Hannah).

These soundbytes reflect important motivators for these editors, but it was often later in the interview that their passion for a particular topic would emerge, and they would show what truly drives them to continue editing. For one interviewee, she described editing the article about the Charleston church shooting the night that it took

place. She stayed up all evening, researching the history of the church, writing in new information as it was released, making sure that the information was accurate, updated, honoring those connected with the tragedy. For another interviewee, she became visibly animated when she began discussing the lack of available information on important health-related topics, information that many people lack, information that affects their quality of life on a daily basis. She described pirating textbooks so that she could access necessary sources to write these articles, using her own money to buy materials with the information that she wanted to cite in these entries. As the interviews persisted, it became clear that these women were driven by the desire to create information that was important in the lives of real people, information that had real impact.

This was clear as many women discussed how they transitioned from writing in other contexts to writing in Wikipedia because the reach and longevity of their contribution.

As Madeline mentions, "I enjoy writing on Wikipedia because it feels like my words will reach further and stick around longer than they did on my blog," and discusses a particularly gratifying moment when she saw an image she uploaded to Wikipedia on display at a local museum. According to Madeline, that's when "I realized that my work could actually make a difference in my environment. I guess from that moment I was hooked." Similarly, Rose discusses the difference between writing on her blog and writing articles on Wikipedia:

> Only those people who knew me, or people who accidentally reached there through google used to read my blog. But when I switched to Wikipedia I found myself very comfortable there. People were actually reading my stuff, and when I

go to the article's statistics, I found that ten thousand, twenty thousand people have read the article and benefitted from it. And also the satisfaction that the knowledge which I have is being shared with a lot of people.

For many of the women, writing meaningful information in to Wikipedia means writing about underrepresented topics and people groups, most notably women, LGTBQ issues, and people of color. Ray claimed,

 I started editing Wikipedia more regularly at all was because I noticed on my own — before I read studies or learned anything about the Wikipedia gender gap—that women are highly underrepresented from the pages of Wikipedia. ... So, with some exceptions, I prefer to spend my time helping notable women who have been overlooked get the recognition they deserve.

Similarly, Madeline mentions, "It became clear to me that women were/are being left off of the pages of Wikipedia in a significant way. I started working on articles related to notable women in the sciences and other fields to improve their representation in the world's most popular online encyclopedia." Amanda discusses how her topic of interest—an informal, recreational topic—may not seem like a political issue, but she states, "the more you actually learn this is hugely important from a feminist perspective for developing women's rights, because it's dignified women's rights, it ties into other issues about women's health, women's access, women's human rights and it's a topic where people can easily pay attention."

Finally, the sustaining power of purpose is best illustrated when the participants invoked this sense of purpose when describing the emotional distress, isolation, and harassment they experience as women editors. The responses of the participants demonstrate how the women are driven by firm commitment to the worth of Wikipedia and the need to push for positive change—change for women and others generally. For example, when I asked Becky why she continues to edit despite the pushback and emotional labor, she writes:

> It's a good question 'cause I've seen people leave because they just got tired …
> But because Wikipedia continues to exist, it's something that I think most of us
> are still referring to it on a near daily basis, that I just can't let it go until it, you
> know, if it's gonna continue, I'd like to be there to help make it go in the directions
> that I think it should go in. That's what motivates me.

Similarly, Amanda states, "When harassment occurs, like for me, I ask myself, what is my purpose here? What am I trying to accomplish?" She explains that her commitment to gender issues motivates her, not Wikipedia per se, but "the bigger picture that just happens to take place on Wikipedia." When Natasha described her "dissatisfaction" with existing Wikipedia policies or norms, she stated that engages the community more and pursues positions of influence. From her position of authority, she can do more to improve the conditions for women. She states, "We can't just, like, let the fatigue of discussion, like let it drift away. So that's probably what my main focus is, is continuing to agitate at times, to keep the gender issue on the front burner." For Jen, she tries to remember her sense of purpose on a regular basis as she fights vandalism and trolls

within the community: "I was like super angry, my problem is like I still get like emotionally worked up about trolls which is like I said .... which is when I turn my computer off and call my mother, call my boyfriend and cry or get my cat or go for a run... Then you know…and I always, they always remind me like oh you're pissing them off, you're doing something right."

Summary

In this section, I have discussed the meso-level organizational tensions that shape women's experiences on Wikipedia. In so doing, I argue that women's participation on Wikipedia is influenced by larger tensions discursively constructed by gendered power within the organization. While the perceived outcomes of these gendered tensions include emotional exhaustion, distress, isolation, and attrition, the women editors who persist do so due to their deep sense of purpose they derive from their work on Wikipedia. Therefore, these findings demonstrate the necessity of examining the sociocultural contexts of women within Wikipedia as it textures existing explanations of women's underrepresentation on Wikipedia.

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RQ2: Tensions in Women's Sense-Making

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For both research questions, the data analysis led to findings rife with tension. Research Question 1 outlined how gendered power creates organizational tensions that impact the participation of women editors. Research Question 2 asks how women editors make sense of their underrepresentation within Wikipedia. Therefore, while RQ1 examines gender, power, and tensions at the organizational level, RQ2 examines cognition, ideology, and tensions at the individual sense-making level. When analyzing the data, differing approaches toward the gender gap came to the fore, demonstrating

divergent approaches in sense-making within the group of Wikipedia women. More specifically, this chapter examines tensions in women's sense-making of why the gender gap exists, how to navigate the gap as a woman editor, and how to ultimately close the gap.

Here it is important to return to standpoint theory, to illustrate how these women's perspectives on the gender gap hold epistemic weight. Their knowledge of the gap—how it was created, how it should be navigated, and how it should be solved—reflect their experiences as a marginalized group. However, even within a marginalized group, their experiences and perspectives are not uniform. As Buzzanell, Remke, Meisenbach, Liu, Bowers, & Conn (2015) claim, "Rather than treating women as a monolithic group that holds coherent, shared group understandings, standpoints can be viewed as shifting and socially constructed consciousness, identities, and perceptions of what typically is taken for granted in group members' everyday lives" (p. 2). Therefore, the tension between perspectives within women editors reflects the diversity of contexts, experiences, locations, and identities of the women. Some of the editors live in European contexts, others South Asian; some are American people of color. Some identify with the LGBTQ community, others have heterosexual relationships. Some are older editors who have been 'the only woman in the room' for decades; others are younger, having experiencing online hostility since middle school. Some have observed the cultural transformation of the sixties, invoking their experiences in the civil rights movement as shaping their understandings of gender. Others ascribe to modern feminist movements that celebrate gender fluidity. However, the diversity of individuals' social understandings does not rob a standpoint perspective of its power—rather, it makes it richer and more nuanced. By

"looking for unifying commonalities while admitting differences," researchers and organizational members can seek to "develop theory and practices that are richer and more inclusive of difference in women's lives" (Buzzanell et al., 2015, p. 6).

While individuals' sense-making is complex, this study has still sought patterns within it. Thus, I discuss the tension between women's perspectives as two ends of a continuum. Women oriented toward the left side of the continuum emphasize fundamental differences between men and women and the importance of individual agency in seeking social change (essentialist/individualistic). Women on the other side, however, emphasize gender constructionism and the role of cultural and structural forces in social change (constructionist/cultural). While these presuppositions about gender and society foreground the various tensions outlined in this chapter, this chapter also explores how women form bridges between their disparate perspectives as they work toward their shared goal of closing the gender gap.

Essential Differences vs. Cultural Biases: Tensions in Conceptualizing the Gender Gap

Nearly half the interviewees emphasized the clear distinctions between men and women's characteristics and experiences. For these women, the gender gap can be traced back to these fundamental differences, and they invoke them to explain why so few women edit Wikipedia. For example, when I asked Stacie about the reason for the low representation of women, she stated:

> I think women don't like to argue in the way that men argue points. I think women in general are more collaborative than men are and how they feel with things in life and that's the reason. If there was one reason that is the reason.

For Stacie, she can sum up the underrepresentation of women with their disinterest in the aggressive argumentation that characterizes Wikipedia. When she describes her reasoning, she speaks about gender as a fairly stable, non-fluid concept, and bases her larger claims about the Wikipedia gender gap on it. Similarly, Elizabeth believes women's preference for a civil environment to be the primary factor contributing to their absence. She states, "I think most women do not want to participate in forums that are as hostile as Wikipedia. I think most women would prefer a civil environment and that some would even like a sociable one."

Whereas Stacie and Elizabeth emphasize women's disinterest in aggressive argumentation, Madeline invokes a different gender distinction to explain the gender gap: men and women's alternative approaches to taking initiative and risk. She states:

Women I talk to will ask me how to edit Wikipedia, and I always say click the edit button and they are astounded that there is one. Most men I talk to who ask me the same thing have already hit the edit button and are asking about how to make their edits stick. It's a major and crucial difference. Some of my female friends still complain to me when they find a spelling mistake on Wikipedia. A guy who cares will try to fix that in the moment.

While Stacie, Elizabeth, and Madeline all describe shared characteristics of women, Tammy cites shared experiences among women that lead to their underrepresentation on the site. She states, "The truth is that they have children, that they have other lives, men have more free time. … Women are multitasking, they are so multitasked to death." In this statement, she assumes a somewhat universal experience

women share—they raise children and engage in multi-tasking. Although this does not speak to concrete gender characteristics, it speaks to a stable, shared sense of women's experiences that then shape their involvement on Wikipedia.

In contrast, consider Renee's comment: "Yeah I got really mad at the first Wiki Conference USA because I heard someone on a panel say, 'Well women don't edit Wikipedia because we're raising children.' I was like … you know, just because I have a uterus doesn't prevent me." Renee represents the women who orient toward the right end of the continuum—those who are quick to claim non-stable definitions of gender and resist explanations of the gap that generalize and concretize women's experiences. The tension between the two perspectives is evident in the statements of constructionist/cultural women that seek to deconstruct the reasoning of essentialist/individualist women. For example, Karen expresses disagreement with the "lack of leisure time" argument, and also claims the gender gap is not about "the lack of expertise or confidence in expertise, the technology piece, [or] familiarity with the internet."

When explaining the existence of the gender gap, the women on this side of the spectrum ground the gap in cultural biases toward women—both in larger culture and in the Wikipedia subculture. For instance, Hannah explains the gender gap according to "a cultural bias against women really getting involved in tech focused areas." She attributes the gender gap to a larger cultural bias that translates to women's underrepresentation in the tech-focused community of Wikipedia. Other women invoke societal gender socialization as a reason for the gender gap. For instance, Rachel discussed her experience in the school system—how it encouraged boys to be bold and girls to be

considerate. Therefore, she believes the gap has less to do with women's inherent abilities or characteristics and "more to do with culture." Similarly, Stella and Rose mention how families encourage sons to go into tech fields and place computers in boys' bedrooms, rather than girls, giving boys an advantage in gaining technological skills. Renee discusses how women's internalizing of these cultural messages leads to the gender gap. She states that when women believe these cultural messages, they think that "because they're a woman, and because there aren't women on Wikipedia, they buy in to the bullshit that 'Oh markup is hard.'" In attempts to debunk these myths women internalize, Renee used to tell her students, "If you put a shiny unicorn on your MySpace page you can edit Wikipedia."

Finally, women orienting toward constructionist/cultural side of the scale are also more likely to blame the gender gap on Wikipedia's male culture. Jen defines the culture as toxic, stating "I think that so few women edit because a) they've heard about how toxic it is, b) they experienced how toxic it is and it's toxic in ways that are more gendered than the men realize." While Jen identifies explicit ways the culture excludes women, Karen discusses subtle cultural signals that make women feel unwelcome. She states:

> I think that there are some very implicit signals that women get about the cultural norms and the social norms that we see on Wikipedia that – very, very implicit. Like I don't even think that I would be able to say what they are. And I probably don't consciously pick up on them. But my guess is that I recognize that there's a certain type of community on Wikipedia, one in which I don't currently identify as a male.

Therefore, in contrast to explaining of the gap in stable gender differences that lead toward women's disinterest in participating, woman oriented toward the right side of the spectrum push against explanations that reduce women's underrepresentation to their gender. In sum, this group explores how culture—both online and off—influences the gender gap on Wikipedia.

Being Yourself vs. Changing Yourself: Tensions in Navigating the Gender Gap

Not only do these two groups diverge in their conceptualization of the gender gap, but they differ in their approaches to navigating the gender gap. The first group of women advocate a "working within the system" model, suggesting that women fit themselves into the system in order to live in a male-dominated environment successfully. This approach can be summarized by (a) avoid trouble, (b) be careful with your words, and (c) be tough.

Several editors spoke of their careful avoidance of controversial topics and how this differentiates them from other women editors. A few women hinted at "some of the things [other women] get into" in those areas (Sharon). Consider Amanda's statement:

> That's what makes it hard for me talking to other women …. I read some of [their] politics and I go, oh I can see why you're being harassed, which sounds wrong, like I have tremendous sympathy for what [they have] gone through but I look at their politics and I go "ohh…" You know, the Gamergate stuff was really bad, I wouldn't have touched that … So it's harder to relate to that because they're going in areas I wouldn't have touched because I feel like the consequences are higher to go there to begin with.

These women also advocate carefully minding their speech in order to avoid provoking aggression from other editors. As Stacie says, "I don't know how to say this but the edits I have made have not been contentious and I haven't spent a lot of time doing stuff on talk pages, and when I have its been always respectful." Similarly, Sharon highlights the importance of strategically choosing one's words when discussing the dispute of another woman editor:

> I remember reading through when those people were saying, looking at those talk threads, I was thinking, yes, they are making their point, but some of their damage is self inflicted. They are not understanding the nature of the opposition and they are not understanding the system …

Tammy uses the term "diplomatic" when she explains how women should act if they "want to butt horns with someone who thinks they're stronger than you." Similarly, Stacie's advice to another woman editor interested in an administrative role was to "tone down" her contentious posting, and "actually do away with it altogether." These statements—particularly about other women editors inflicting their own mistreatment— illustrate the commitment of some editors to the importance of choosing one's words carefully in order to survive within Wikipedia's male-dominated environment.

Finally, women on the left side of the spectrum discuss the importance of developing thick skin as women editors. According to this logic, women editors should not complain about sexist harassment or hostility—they should tough it out. For these women, this translates to absorbing attacks without ever "taking it to the top" and allowing others to revert your edits without dispute. For Sharon, "thriving" in a

community that is "not particularly estrogen rich" requires a certain kind of toughness. Tammy reiterates this claim, mentioning that women on Wikipedia should shake off the harsh words of others and keep editing. She states, "The whole political correctness and wearing our emotions on our sleeves, is not good, sticks and stones may break my bones, but words will never hurt me." Like Tammy and Sharon, Stacie mentions that she disregards negative comments and actively ignores when other people change her edits:

> I don't do edit warring, never, ever, never ever, never, never and never—it's that important to me. I figured some wants to change something I wrote –go have add it, improve it, do whatever you think.

Similarly, Natasha states, "there's many things that I overlook and that's the reason I've been able to stay in the community and function and get along with all the people fairly well is because I do overlook other things that some people absolutely cannot overlook." In sum, these women put forth an individualistic approach to living within the male-dominated culture of Wikipedia. For them, to live as a woman in Wikipedia, one must carefully avoid conflict, be strategic, and be tough. All of these approaches locate responsibility within the woman editor as opposed to the organization or volunteer leadership of the site. Rather than seek help from higher ups, they should change their own behavior; as Sharon says, "You don't take it to top."

Whereas women oriented toward essentialist individualism place the responsibility to manage sexist treatment on the individual woman—suggesting she change to work within the system—women on the other side place the responsibility on

the structure, freeing the individual woman editor to be herself. Therefore, the approach taken by these women is a) edit where you want, b) be yourself, and c) report sexism.

Several women editors discussed their editing in controversial areas, but defended their reasoning by explaining how these places need women's involvement. For example, Elizabeth described her experience attempting to fight the insertion of misinformation in controversial article. Even though she was accused of "edit warring," she decided to "commit to editing for a while and try to bring some balance to these articles" because she "realized that Wikipedia was being used by editors to push their POV on [these topics]."

In addition to editing where they wanted, these editors were more likely to express the importance of not changing one's tone of voice or behavior within Wikipedia. As Jen says, "I don't really have gravitas, I'm kind of bitchy, I've just kind of taken on that, like I'm a bitch, it's just how it is, love it, live it, whatever." For her, she has decided to avoid attempting the constant changing of herself to fit the structure of Wikipedia. Instead, she embraces her personality and natural communication style.

Furthermore, this group is more likely to expose sexism for the leadership to address. Rather than avoiding taking it "to the top," these women actively call out sexist treatment on Wikipedia. For example, they are more likely to "describe the Wikipedia culture as being male-dominated, and often misogynistic" (Gena). They've made "requests to stop using sexist language," and they've called out the double standards used by administrators in evaluating women's edits (Felicia). One editor, when describing her complaint of sexist mistreatment to higher ups, shines a spotlight on the difference between her approach and those of other women. She describes that when she needed the

support of other women, it was "discouraging to have most of the people who contacted me privately to express their understanding not want to step up for me" when given an opportunity to do so publically (Elizabeth). Her statement reflects the disinterest of women on the other end of the continuum to call for cultural and structural change.

Therefore, when it comes to navigating the sexism of the Wikipedia environment, these women represent widely diverging perspectives. Whereas women on the essentialist/individualistic side privilege individual agency to navigating these issues, women on the other end highlight the importance of remaining oneself and calling for organizational change.

Campaigns for Women vs. Culture Change for Everyone: Tensions in Addressing the Gender Gap

The final tension emerged in how women make sense of solutions to the gender gap. The solutions proposed by women oriented toward essentialist/individualistic side of the continuum reflect their emphasis on individual responsibility and fundamental differences between men and women. For instance, these participants expressed an interest in campaigns to recruit more women to Wikipedia. Rather than seek cultural or structural change within the community, these women believe in efforts outside the community to draw women in. For instance, these women have pioneered Wiki projects about women in attempts to "draw in new women editors," (Hannah), they have run edit-a-thons for women, and do a lot of community outreach to women in local schools and organizations. When asked how to close the gap, Rose suggests holding serial editathons for women, Ray suggests starting Wikipedia groups "at the high school level the way robotics clubs or debate clubs or sports clubs are," and Elizabeth suggests, "active

recruitment of more women, including direct advertising in women's magazines and retiree magazines like AARP The Magazine."

In addition to the active recruitment of women outside of Wikipedia, these efforts generally focus on women as a discrete category—without much discussion of people of color, or LGBTQ individuals, for instance. One editor described Wiki Project "Women in Red," a group of primarily women organizing to increase the content about notable women on Wikipedia. The editathons that recruit women are attended largely by "white, middle class, upper class women" rather than people of diverse ethnic, racial, or socioeconomic backgrounds. These campaigns and programs focus primarily on women without attention to other intersecting subjectivities.

The nature of this group is best observed through contrast to women who orient to the constructionist/cultural side of the continuum. Women on this side of the spectrum emphasize cultural and structural change within Wikipedia to close the gap rather than look to Wikipedians to initiate campaigns and recruit women. Rather than expect agency from the editors as well as potential recruits, these women are more likely to call for cultural change—typically through structural changes. The way most women verbalize this is by calling for organizational prevention of and intervention into the rampant harassment on Wikipedia. For instance, Amanda claims that the worst problem are the trolls on Wikipedia, stating, "there's been a number of cases where these trolls have been actively empowered, and so you end up with this place where all the rational people have left the conversation, and all you have left is trolls, and to fix it the first thing they need to do is get rid of the trolls." In order to do this, she suggests hard action from Wikimedia, suggesting:

They ban them from the mailing list, they global block them from all Wikimedia

projects and they have people whose job is to enforce these policies regarding

them being blocked. They create a list of people who are banned from all

Wikimedia Foundation events. They cannot attend them, they make them

personae non gratae, you want to stay in the movement, you want to reap the

benefits of the movement, for which there can be many, you either conform or

you go away.

Gena puts forth a similar solution, claiming "I think the biggest thing is increased

and improved civility enforcement. There is an immense amount of leeway for people to

be truly terrible to each other, and I think this disproportionately affects women." And

she says that this "requires active buy-in from the Wikimedia Foundation, because I don't

think any amount of community campaigning will effect a change." Felicia shares the

belief that trolls poison the culture, and recommends that the organization force "editors

who cause trouble repeatedly to identify themselves to an employee of the foundation and

have a phone conversation with them about policies… This definitely would discourage

many trolls." Other participants stated the need for more options for women seeking

redress for sexual harassment, offwiki harassment, and other forms of sexism. In addition

to preventing harassment by punishing trolls, the foundation needs to provide more

"official channels for assistance" to better support women who encounter sexist treatment

(Amanda).

In contrast to the essentialist/individualistic side of the spectrum, women oriented

to the other side take issue with gender gap solutions that focus solely on women. These

women emphasize the fluidity of gender, and the importance of inclusion of multiple groups of people, not just women. For example, Karen explains her problem with prevailing approaches to solving the gap that endorse the essentialist/individualistic model:

> And the big misperception is the gender gap that we are talking about gender, male, female. We're not talking about androgynous. We're not talking about all of this wonderful middle space that we know individuals are more oriented towards now anyway.

Some of these women feel uncomfortable participating in these groups, even though they recognize the shared desire to raise the representation of women in Wikipedia. According to Renee:

> To be honest, it's made me step a bit – take a step back from the Wiki Women movement. For me being a feminist means addressing all areas of oppression, and I really don't feel like Wiki Women's movement has taken that on. When I ask questions about this at Wikimania, or at Wiki Conference USA, I very much respect and appreciate the work that these women are doing. But I feel like it's very reductive.

Similarly, Maria mentions that she would like to "move away from this tokenism where it's like Women in Red and Art and Feminism."

Given the belief in gender inclusivity, these women were more likely to suggest approaches that appealed to multiple kinds of people rather than just women. For

example, Rachel discusses how other wikis have adopted approaches that weren't

focused on "just being more inclusive to women." According to Rachel, "it was like let's

be more inclusive in general, and I think that's something to consider." Renee provides

an example of Wikipedia project that is "not a gender-driven initiative" but are "actually

getting a huge number of women who are coming on," to illustrate that general

inclusivity is a better approach. In addition to solutions that broaden definitions of

inclusivity, these women also claim the value in exposing the toxicity of the Wikipedia

culture. Rather than bringing more women into a sexist environment, they want to draw

attention to the toxicity in order to prompt organizational change. Consider Gena's

statement:

> Some people have expressed concern that publicity about the gender gap that
>
> Wikipedia struggles with will only perpetuate it. I think that bringing attention to
>
> it is really our only option. It has persisted for over ten years with no change, and
>
> I'm not convinced that quietly wishing more women would just show up will
>
> make a difference. I'm hoping that increased press attention will force both the
>
> Wikimedia Foundation and the Wikimedia movement as a whole to deal with the
>
> issue more proactively, and I think we're already starting to see that change.

In sum, RQ2 illustrated tensions between women's approaches to the gender

gap—why it exists, how to navigate it, and how to solve it. However, while two

predominant perspectives emerged from the analysis, participants often situated

themselves differently on the continuum according to the question. Women who

espoused a gender essentialist view would occasionally comment on the importance of

structural change to solve the gender gap. Similarly, women committed to gender constructionism would suggest recruitment campaigns for solving the gender gap. Such diversity even within individual's standpoints reflects the role of context, culture, experiences, and identity in the construction of sense-making.

As these women share the goal of increased women's participation, the differences provide this richness and depth of insight, but perhaps more important is that women on opposite sides of the continuum openly expressed empathy and respect for women on the other side. Consider Stacie's statement about women on the constructionist/cultural side: "Some women have taken a very hardline feminist point of view and some people call that approach like feminazis and that just bothers me to no end that some women are labeled as feminazis when what they are trying to do is you know, they are trying to do good." From the other camp comes Renee's statement, "I very much respect and appreciate the work that these women are doing." Some of these women identify the differing approaches, but still engage in gender gap-related work alongside them. Jen explains how she and another editor differ in many respects, but then states, "the thing is we get along and work together great." In this way, these editors have transcended differences in their approaches as they work toward the same goal of closing the gender gap. Therefore, despite the ideological disparities among these women, they still evidence fluidity in their sense-making, moving between poles, demonstrating empathy and respect for other women, and even constructing bridges between their divergent perspectives due to their shared goals.

Thus, while many women in the study situated themselves along a spectrum of perspectives, two predominant approaches emerged: essentialist/individualistic and

constructionist/cultural. Women oriented toward the essentialist/individualistic side were more likely to claim the gap exists due to fundamental differences between men and women's traits and experiences. Women oriented toward the other side attributed the gap to cultural biases within larger culture and Wikipedia subculture. When explaining how to best navigate the gender gap, women on the left side of the spectrum emphasized women editors' individual responsibility to change their behavior and fit within the system. In contrast, women on the other side voiced a commitment to maintaining independence and calling the culture to change. Similarly, when discussing future approaches to solve the gap, women on the essentialist/individualistic side suggested woman-focused initiatives to recruit more female editors to Wikipedia. Women on the other side of the continuum suggested structural changes that would lead to a more inclusive cultural environment for everyone—not just women. Despite these drastic differences, women still demonstrated respect and empathy for the experiences and perspectives of other women, at times actively forming alliances to seek the same goal despite their diverging ideologies.

As evidenced by the analysis of RQ1, the women in this study are highly motivated by their sense of purpose despite their differences in perspectives. These women withstand isolation, harassment, and emotional distress to contribute to the Wikipedia project, many of them especially invested in the increased representation of women on the site. The diversity of their perspectives reflects standpoint theory's recognition that women's sense-making is fluid and shifting depending on experience, context, and social location. Like the participants in the study of Buzzanell et al. (2015), the women prove to be "knowledgeable agents who actively construct their worlds and

are simultaneously complicit with and in opposition to dominant meanings and practices."

Yet it is this diversity in understandings that is essential in order to "develop theory and

practices that are richer and more inclusive of difference women's lives." Furthermore,

the tension within women's sense-making is the necessary fuel to the fire of dialogue that

can lead to individual and organizational change. Therefore, identifying these tensions is

necessary for the community to recognize continuity and divergence in their sense-

making in order to work toward social change for women within Wikipedia.

CHAPTER 5. DISCUSSION

In the previous four chapters, I have problematized existing explanations of the

gender gap that frame the gap as a "woman problem" and explored the lived experiences

and sense-making of women editors of Wikipedia to understand the sociocultural factors

that shape their participation online. I framed these factors as gendered organizational

tensions that are discursively constructed within Wikipedia and create perceived

outcomes of isolation, emotional exhaustion and distress, and attrition among women

editors. Despite these gendered tensions and their outcomes, the participants persist due

to their deeply rooted sense of purpose in their Wikipedia work. I then discussed

women's sense-making of the gender gap, acknowledging the situated and messy nature

of standpoints, yet describing the two primary approaches that emerged from the data.

These diverging approaches can be represented as a continuum, as women editors situate

themselves at various points depending on their social locations, experiences, and other

factors. I then conclude that though the women demonstrate often diverging approaches

to the gender gap, their shared purpose in increasing gender equality can create a bridge

between these differing ideologies. Thus, this study suggests that sociocultural factors do

bear upon women's participation within Wikipedia, and their sense-making of these

tensions—their causes, outcomes, and solutions—are textured and nuanced by their own

social locations and experiences, demonstrating the complexity of women's participation

within Wikipedia. Due to these findings, put simply, the gender gap is not just a "woman problem."

This chapter discusses the theoretical and practical implications of this project. More specifically, it discusses the reach and effects of neoliberalism in women's participation in online spaces, the role of standpoint theory and dialogue in addressing issues of gender online, as well as practical steps for organizations to proactively address harassment and sexism on their sites. This chapter concludes by discussing the limitations of this study and directions for future research.

New Understandings of Neoliberalism in Women's Participation Online

First, this study contributes to our understanding of women's participation in online spaces as it exposes new aspects of neoliberal understandings as they shape women's involvement in online groups. Scholars have discussed how neoliberalism intersects with technology. Offline neoliberal values of individual agency and self-determination are compounded by the technological affordances—and libertarian underpinnings—of the internet. Women, as free agents in a neoliberal society, are even more responsible for their own participation online due to these affordances such as anonymity and ease of access (Eckert & Steiner, 2013; Reagle, 2010). However, seemingly leaderless, egalitarian movements like Wikipedia extend this neoliberal logic even further. In a community with a seemingly flat hierarchy, anonymity, and freedom of culture and expression (Konieczny, 2010), women have even less excuse to remain absent. In this study, these ideals are represented by the first 'side' of each tension discussed (e.g. inclusion, adhocracy, civil free speech), while the other, explicitly gendered side (exclusion, oligarchy, and harassment) is often ignored. Therefore, this

neoliberal logic is used against women by assuming freedom and egalitarianism while neglecting the tensional nature of these values, particularly their gendered nature. Therefore, this study can contribute to our knowledge of women in online communities by exposing gendered tensions within online organizations, and deconstructing the neoliberal discourse that faults women for their underrepresentation

Furthermore, this study exposes how the logic of neoliberalism extends even farther; not only must women participate and volunteer their knowledge, but they are also expected to fix the existing culture. In a supposedly "leaderless" environment such as Wikipedia, the community determines the cultural and structural norms. If women are dissatisfied with those norms, not only are they responsible for taking action to change them, but they are implicated in their very development. In the absence of larger organizational structure, women, along with other community members, are perceived as part of the structure. Just as women are responsible for their absence from Wikipedia, they are responsible for perpetuating an environment with problems.

Furthermore, these women often receive this message from Wikimedia. Wikimedia's former director, Sue Gardner "listed ways to encourage women to edit Wikipedia: actively recruiting women, women-only activities, a female-friendly environment, and emphasizing Wikipedia's social impact" (Eckert & Steiner, 2013). Thus, from the parent organization, women hear that they must reach out, recruit more women, and fix the environment with little to no structural or cultural change.

However, this study goes beyond these macro and meso-level neoliberal discourses to illustrate the effects of the micro level neoliberal discourses—women editors' differing ideologies. For example, consider Natasha's statement: "I discovered

pretty early on that I was not represented, and the way to handle that was to become more and more and more involved." When she encountered the gender gap, she took responsibility for changing Wikipedia; she became more involved. She and others editors' responses reflect neoliberal beliefs in self-determination and individually-driven social change. However, within the community of women editors, these ideologies interact and affect women members. Thus, this study demonstrates that not only do women receive messages of individual agency from broader culture, internet culture, and Wikipedia culture; they also receive it from each other.

While many women in the Wikipedia community find ways to constructively bridge their ideological differences, the fallout of conflicting ideologies—particularly neoliberal ideologies—can still take place. The effects of neoliberal ideals filtering through the Wikipedia women community is best observed through Elizabeth's statement about the lowlight of her experience editing. She described her harassment on and off-wiki and stated that was "very discouraging to have most of the people who contacted me privately to express their understanding not want to step up for me" when provided the opportunity. In this context, Elizabeth is referring to other women editors who withdrew their support and eschewed engaging in communal resistance to sexist treatment on Wikipedia. In this moment, Elizabeth was forced to fight these battles on her own. She places this emotional experience of isolation and betrayal on par to her harassment, stating both were the lowlights of her time on Wikipedia. This situation demonstrates the potential detrimental effects of the interpersonal spread of neoliberal ideology. In this way, this study extends understandings of neoliberalism in online communities, by

demonstrating how it operates at the interpersonal level and illustrating its potential outcomes.

The Role of Dialogue and Standpoint in Addressing Gender Issues Online

The potential fallout of conflicting ideologies underscores the need to discuss these differences in order to generate solutions that incorporate varying perspectives of women editors—the argument made at the end of findings related to RQ2. In this way, this study responds to the recent call of Emma Jane (2016), to "address old equity and misogyny issues in the new terrain of the cybersphere … by forging hybrid activist strategies which involve temporary allegiances between various theories, tactics and feminist generations" (p. 9). While the online misogyny literature remains nascent, the women of Wikipedia demonstrate the necessity to forge hybrid strategies by demonstrating a) the effects of neoliberal fallout and b) the productive potential of bridging ideologies.

In so doing, this study contributes an approach for feminist technology scholars to consider—the standpoint theory perspective. By acknowledging the situated knowledges of women as diverse, socially shaped, and fluid, scholars can explore these differences between women as generative when discussing addressing online misogyny.

Furthermore, this study identifies the challenges practitioners and scholars face when responding to gendered treatment in online spaces. In this way, this study contributes to current discussion regarding the responsibility of social media companies for responding to harassment taking place on their platform. Companies like Twitter and Facebook "describe their sites as enabling communications, rather than publishing content – a crucial distinction which means that they are not liable for trolling or abuse"

(Kiss & Arthur, 2013). While these sites have increased their protections of users, Twitter in particular continues to receive criticism about its suboptimal response to users reporting abuse. Given the increasing conversation surrounding organizational responsibility for harassment on its platforms, the sense-making of women editors is helpful for understanding the appropriate response of organizations in this context. Because nearly half of the editors espoused beliefs in organizational responsibility for issues such as harassment yet many also spoke to the failures of the organization to do so, this study highlights how online organizations must consider the ways in which their "platform" status exposes its participants to risk and potentially affects the participation of diverse populations on their site. Based upon the experiences of women with little organizational support or opportunities for redress, I argue organizations should not only provide greater support, but must be proactive in doing so—even if it appears there is little need.

First, due to the multi-layered neoliberal messages foisted on women about managing their own mistreatment, women are less likely to raise issues of harassment. Second, given the silencing effect that harassment has on women, organizations must be proactive in seeking out harassers and providing appropriate support to victims. Third, participants in this study, as well as recent research (Jane, 2016; Megarry, 2014), demonstrate that much harassment has moved off the platforms to less visible places. Therefore, organizations should be even more attentive to members' requests for redress and support even if their harassment appears invisible.

Limitations and Future Directions

The women in this study represented four different nationalities and several ethnicities and sexual orientations. However, the majority of the participants were white, well-educated middle to upper middle class women. Given the absence of diversity related to ethnicity, socioeconomic status, and other forms of difference, this project lacks the additional insight provided by women who experience and make sense of Wikipedia differently due to their intersecting social locations. Furthermore, as these women were recruited through mailing lists and snowball sampling, they have self-selected to share about their experiences. As a result, their experiences may reflect those who are highly invested in and connected to Wikipedia, and are less likely to be those of your "average editor" editing outside of strong peer groups or administrative interaction. Future research should deliberately seek the insight of a greater diversity of women editors—not only to understand the nature of their experiences on Wikipedia, but also to incorporate their sense-making into developing solutions to the gender gap. As initiatives to increase women in technology have often been created for and by white women, the voices of people of color are especially important to understanding what solutions create change across difference.

Furthermore, these accounts are retrospective. While this is helpful in understanding women's sense-making, the reports of their experiences could be richer if gathered closer to the original events—or accessed through methods such as participant observation. Scholars should consider such ethnographic methods to provide greater context and nuance to our understandings of the sociocultural environment of Wikipedia and its gendered aspects.

Finally, future scholarship should investigate the perspectives of others in the community to develop a richer perspective on the issue of women's participation. For instance, interviewing men in the community would not only provide helpful insight, but it can help us understand how further bridges can be built between editors to create greater equality for women. Additionally, future research should seek to interview women who have left the Wikipedia community in order to better understand the reasons why women leave Wikipedia. While several of the women of this study had discontinued their editing, a sample of women who have left would shed greater insight into women's participation on Wikipedia.

Conclusion

This project began by questioning the narrative that women were responsible for their underrepresentation on Wikipedia. As a result, the study unearthed stories, experiences, and perspectives that demonstrated the variety of gendered organizational tensions women within Wikipedia must navigate—tensions they perceive to affect their participation. In many ways, the study demonstrated how offline inequalities are easily replicated online, despite the ideals of democratic and egalitarian online organizing. In this way, the project has answered many questions, but it has also spurred many more, especially as women make sense of the gendered tensions they navigate in multiple and complex ways. Despite this complexity, this study reaffirms the necessity of seeking the perspectives of marginalized groups who experience power and organizing differently, especially when it comes to developing strategies and solutions to issues of gender in a rapidly changing technological landscape. It is my hope that this research can spark dialogue useful not only to scholars interested in issues of gender, technology, and

organizing, but also for those deeply engaged in these communities and committed to

cultivating greater equality and organizational change.

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APPENDICES

Appendix A. IRB Application Narrative

APPLICATION NARRATIVE

A. PROPOSED RESEARCH RATIONALE

● Describe why you are conducting the study. Identify the research question being asked.

The purpose of this study is to understand the lived experiences of women who regularly edit the online encyclopedia of Wikipedia. Research has indicated the low level of women's involvement on Wikipedia, and the experiences and perspectives of its current women members are essential to understanding the Wikipedia gender gap. Thus, this study seeks to increase knowledge about the underrepresentation of women in Wikipedia in order to promote greater gender equity within this online community. This project's research questions include: How do women editors describe their experiences within the Wikipedia community as enabled and/or constrained by their gender identity? How do women editors make sense of women's underrepresentation within Wikipedia?

B. SPECIFIC PROCEDURES TO BE FOLLOWED

● Describe in a step-by-step manner what you will require subjects to do in this study.

● Identify all data you will collect.

Participants' involvement will entail a Skype, email, or phone interview depending on their correspondence preferences and Internet access. The in-depth, semi-structured interviews will range from 30-90 minutes in length and will be audio recorded for accuracy and data analysis purposes. The goal of the interviews is to engage in a conversation about participants' editing experiences and their perspectives on how to create a more gender-inclusive Wikipedia. As part of the interview, participants may also be asked to share screenshots/images of some of their interactions on Wikipedia. If the participants are willing, the researcher may also follow up with at a later date to receive feedback on the analyzed data.

C.   **SUBJECTS TO BE INCLUDED**

Describe:

- The inclusion criteria for the subject populations including gender, age ranges, ethnic background, health status and any other applicable information. Provide a rationale for targeting those populations.

- The exclusion criteria for subjects.

- Explain the rationale for the involvement of any special populations including prisoners

- Provide the maximum number of subjects you seek approval to enroll from all of the subject populations you intend to use and justify the sample size. You will not be approved to enroll a number greater than this. If at a

later time it becomes apparent you need to increase your sample size, you will need to submit a Revision Request.

- **For NIH funded protocols**: If you do not include women, minorities and children in your subject pool, you must include a justification for their exclusion. The justification must meet the exclusionary criteria established by the NIH.

Given the project's goals, the participants will be self-identified women who are active members of

Wikipedia, specifically members who have been editors for 3+ years. A maximum of 60 participants will be recruited.

D.   RECRUITMENT OF SUBJECTS AND OBTAINING INFORMED CONSENT

- Describe your recruitment process in a step-by-step manner. The IRB needs to know all the steps you will take to recruit subjects in order to ensure subjects are properly informed and are participating in a voluntary manner. An incomplete description will cause a delay in the approval of your protocol application.

Recruitment will occur primarily within Wikipedia. The co-investigator will post an open call on the Wikipedia Gender Gap Task Force "talk" page, inviting women editors who have actively edited Wikipedia for 3+ years to engage in a

conversation about their experiences. This project may also employ a "snowball

sampling" method that invites participants to recommend others who may be

interested in participating in the study. An alternative method of Twitter

recruitment will be used if the Wikipedia call fails to generate adequate response.

The researchers will email interested individuals a description of the study and

their involvement (see request for waiver of informed consent and the information

sheet). At the beginning of the interview, the co-investigator will ask the

participant if she has reviewed these documents and feels comfortable proceeding.

The co-investigator will answer any questions the participant has and then ask

her if she consents to move forward with the interview.

E.   PROCEDURES FOR PAYMENT OF SUBJECTS

●   Describe any compensation that subjects will receive. Please note that

Purdue University Business Services policies might affect how you can

compensate subjects. Please contact your department's business office to

ensure your compensation procedures are allowable by these policies.

Participants will not be paid.

F.   CONFIDENTIALITY

●   Describe what steps you will take to maintain the confidentiality of

subjects.

- Describe how research records, data, specimens, etc. will be stored and for how long. The IRB generally recommends locked storage, such as a cabinet, for identifiable information. Please note, consent forms signed by subjects, parents and/or legally authorized representatives ARE considered research records.

- Describe if the research records, data, specimens, etc. will be de-identified and/or destroyed at a certain time. If records, data, specimens, etc. will be de-identified, address if a code key will be maintained and when, if ever, it will be destroyed. Additionally, address if they may be used for future research purposes.

Correspondence with participants will utilize a secure email address (@purdue.edu), and all emails with participants will be removed and stored on a password-protected computer. Audio recordings, transcripts, and research notes will be uploaded as quickly as possible to a secure, password-protected computer accessible only to the researchers. Data will be backed up on a password protected USB drive, and this drive will be stored in a locked filing cabinet in a locked room only accessible to the researchers. The researchers will keep the data for at least one year, per the PI's decisions regarding the project's completion.

The researchers will make efforts to protect the confidentiality of the participants. All of the data will be scrubbed of names and other identifying characteristics.

Pseudonyms will be used for any publications or presentations stemming from the study. Any screenshots or images provided by participants will be used primarily for analysis purposes, and any identifying characteristics will be removed from any reproduced images. De-identified findings from this study may be published in various academic or practitioner outlets and may be used in future research.

G. POTENTIAL RISKS TO SUBJECTS

- There are always risks associated with research. If the research is minimal risk, which is no greater than every day activities, then please describe this fact.

- Describe the risks to participants and steps that will be taken to minimize those risks. Risks can be physical, psychological, economic, social, legal, etc.

- Where appropriate, describe alternative procedures or treatments that might be advantageous to the participants.

- Describe provisions for ensuring necessary medical or professional intervention in the event of adverse effects to participants or additional resources for participants.

There are minimal risks associated with this study. The risks are similar to those involved in daily activities such as speaking on the phone, video chatting, or sending emails. The interviewer will invite participants to share their experiences

in Wikipedia. If recollecting one's experiences becomes emotionally distressing at any time, the interview will be stopped and any data collected will be discarded. Participants will not have to answer any questions that make them uncomfortable and can end the interview at any time they wish. Breach of confidentiality is always a risk when corresponding online, but the confidentiality sections discusses the safeguards used in this study to minimize risk.

H.   BENEFITS TO BE GAINED BY THE INDIVIDUAL AND/OR SOCIETY

●   Describe the possible direct benefits to the subjects. If there are no direct benefits, please state this fact.

●   Describe the possible benefits to society.

There are no direct benefits for participants in this study. However, the time, insight, and effort offered by participants is essential to understanding women's experiences in Wikipedia and how to improve gender equity in online and knowledge production communities generally.

I.   INVESTIGATOR'S EVALUATION OF THE RISK-BENEFIT RATIO

The risks involved in this study are minimal, similar to risks encountered in daily life and correspondence with others. However, the benefits associated with this study have far-reaching impact, as women's experiences online are necessary for

creating online spaces that are equitable and gender inclusive. Therefore, the

benefits outweigh the risks in this study.

J. **WRITTEN INFORMED CONSENT FORM** *(to be attached to the Application*

Narrative)

● Submit a copy of the informed consent document in the form that it will be

disseminated to subjects. The approved consent form will be stamped with the

IRB's approval and returned to you for use.

● If recruiting subjects who do not speak English, submit both an English version

as well as a version translated into the appropriate foreign language.

See attachment.

K. **WAIVER OF INFORMED CONSENT OR SIGNED CONSENT**

If requesting either a waiver of consent or a waiver of signed consent, please address

the following:

1. For a Waiver of Consent Request, address the following:

a. Does the research pose greater than minimal risk to subjects (greater than

everyday activities)?

b. Will the waiver adversely affect subjects' rights and welfare? Please justify?

c. Why would the research be impracticable without the waiver?

d. How will pertinent information be reported to subjects, if appropriate, at a later

date?

2. For a Waiver of Signed Consent, address the following:

   a. Does the research pose greater than minimal risk to subjects (greater than everyday activities)?

   b. Does a breech of confidentiality constitute the principal risk to subjects?

   c. Would the signed consent form be the only record linking the subject and the research?

   d. Does the research include any activities that would require signed consent in a non-research context?

   e. Will you provide the subjects with a written statement about the research (an information sheet that contains all the elements of the consent form but without the signature lines)?

I am requesting a waiver of signed consent. As the participants will be geographically dispersed, securing signed consent may put a burden on participants. This study entails minimal risk and the same activities would not necessitate consent outside a research context. With the exception of email correspondence with participants, the information sheet would be the only document linking the participant and the study. Participants would be emailed a form providing a description of the study and their involvement and would be asked in the interview to provide verbal consent that they reviewed the document and agree to participate in the study. (See the attached information sheet.)

Appendix B. Participant Information Sheet

RESEARCH PARTICIPANT INFORMATION SHEET

Understanding Women's Experiences Editing Wikipedia

Patrice M. Buzzanell

Brian Lamb School of Communication

Purdue University

<u>What is the purpose of this study?</u>

The purpose of this study is to understand the lived experiences of women who regularly edit

Wikipedia. Many studies demonstrate the low level of women's involvement on Wikipedia,

and the perspectives of its current women members are essential to understanding the nature of

Wikipedia gender gap and possible strategies for reform. You have been asked to participate in

this study because of your experiences editing Wikipedia.

This study seeks to increase knowledge about the underrepresentation of women in Wikipedia

in order to promote greater gender equity within this online community. Results from this study

may be included in academic or practitioner publications. You may also be asked about

additional publication outlets in which to share the findings of this project.

<u>What will I do if I choose to be in this study?</u>

If you choose to participate in this study, your involvement entails a Skype, email, or phone interview given your preference and Internet access. The interviews will range from 30-90 minutes in length and will be audio recorded for accuracy and data analysis purposes. The goal of the interview is to dialogue about your Wikipedia editing experiences and your perspectives on how to create a more gender-inclusive Wikipedia. As part of the interview, you may also be asked to share screenshots/images of some of your interactions on Wikipedia. If you are willing, the researcher may also follow up with at a later date to receive feedback on the analyzed data.

What are the possible risks or discomforts?

There are minimal risks associated with this study. The risks are similar to those involved in daily activities such as speaking on the phone, video chatting, or sending emails. The interview will invite you to share your experiences in Wikipedia. If recollecting your experiences becomes emotionally distressing at any time, the interview will be stopped and any data collected will be discarded. You do not have to answer any questions that make you uncomfortable and can ask to stop the interview at any time if you wish. Breach of confidentiality is always a slight risk when corresponding online, but the below Confidentiality sections discusses the safeguards used in this study to minimize risk.

Are there any potential benefits?

This study offers no direct benefits to participants. However, if you choose to participate, your time, insight, and effort are greatly appreciated. We hope that the information collected from

this study is useful for understanding women's experiences in Wikipedia and for improving gender equity in the online community.

<u>Will information about me and my participation be kept confidential?</u>

All efforts will be made to protect your confidentiality. Your name, Wikipedia username, and any other identifying characteristics will remain confidential and removed from any documents produced from this study. Any screenshots or images provided will be used primarily for analysis purposes, and any identifying characteristics will be removed from any reproduced images. Audio recordings, transcripts, screenshots/images, and research notes will be uploaded as quickly as possible to a secure, password-protected computer accessible only to the researchers. Data will be backed up on a password protected USB drive, and this drive will be stored in a locked filing cabinet in a locked room. De-identified findings from this study may be published in various academic or practitioner outlets and/or used in future research. The project's research records may be reviewed by departments at Purdue University responsible for regulatory and research oversight.

<u>What are my rights if I take part in this study?</u>

Your participation in this study is voluntary. You may choose not to participate or, if you agree to participate, you can withdraw your participation at any time without penalty or loss of benefits to which you are otherwise entitled.

After your initial interview, the researchers may contact you for follow up questions as the study progresses. Again, this participation is also voluntary. If you choose to engage in follow up correspondence, you may respond in whatever way you feel most comfortable.

Who can I contact if I have questions about the study?

If you have questions, comments or concerns about this research project, you can talk to one of the researchers. Please contact Danielle McDonald Corple at mcdona51@purdue.edu or Patrice M. Buzzanell at buzzanel@purdue.edu or 765-414-0353.

If you have questions about your rights while taking part in the study or have concerns about the treatment of research participants, please call the Human Research Protection Program at (765) 494-5942, email (irb@purdue.edu)or write to:

Human Research Protection Program - Purdue University

Ernest C. Young Hall, Room 1032

155 S. Grant St.,

West Lafayette, IN 47907-2114

Documentation of Informed Consent

At the beginning of the interview, the researcher will ask if you have had the opportunity to read this consent form and invite you to ask any questions about the research study. After all

questions have been answered, the researcher will ask if you consent to participate in the study. Only upon receiving verbal consent will the researcher proceed with the study. Your may keep this copy of the information sheet for your records.

Appendix C. Interview Protocol

These questions are designed to lead participants through a semi-structured online interview about their experiences as women Wikipedia editors.

Pre-Interview:

In the first email sent to participants, I asked them a few questions related to their background, such as:

1. How long have you been regularly contributing to Wikipedia?

2. Is there any other background information that you would like to share prior to our interview (that would be useful in analyzing your data)?

3. Are you comfortable with a Skype/video chat interview format? If not, would you prefer email correspondence or a phone call?

Interview Questions:

1. Tell me about your experiences editing Wikipedia. How did you first begin editing?

   a. Why do you choose to edit Wikipedia?

   b. In what topics do you like to edit?

2. What has been the highlight of your experience editing Wikipedia?

3. What has been the lowlight of your experience editing Wikipedia?

4. How do you believe your gender identity has shaped your experience editing
   Wikipedia?

   a. If so, has it affected your interactions with other editors?

   b. Are there any specific interactions that you would like to draw my
      attention to?

   c. How have you observed others' gender identities shaping their editing
      experiences and the results?

5. Do you disclose your gender within Wikipedia?

   a. If not, have others assumed/assigned you a gender?

   b. In what way was this made apparent to you?

   c. How did you decide on whether to disclose explicitly or not?

6. Why do you think the number of women editing Wikipedia is so low?

   a. What do you think could be done to make the numbers of men and women
      more equal?

7. How do you feel about the coverage or attention that the gender gap has received?

8. We are concluding our interview. Thank you for taking the time to talk to me. Is
   there anything about your Wikipedia experiences that I haven't asked you about
   that you think is important for me to know so that I can analyze your data? Is
   there anything else you would like to discuss about yourself and your work and/or
   personal life experiences that would be useful for me to know?