



# Gender – Diversity – Wikipedia

Shaping diversity together

This working paper is part of the Wikipedia Diversity project, which Wikimedia Deutschland (WMDE) runs in cooperation with the Gender and Technology Center at Beuth University of Applied Sciences Berlin. September 2013.

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## Contents

<b>1 Introduction</b> .....	3
<b>2 Diversity and what it means for Wikipedia</b> .....	4
2.1 Diversity and group collaboration .....	5
2.2 Gender diversity and gender competence.....	6
<b>3 Participation in the creation of Wikipedia</b> .....	6
3.1 Men and women in Wikipedia .....	6
3.2 Reasons for low female participation in Wikipedia.....	9
<b>4 What does low female participation mean for Wikipedia?</b> .....	11
4.1 Distortions in how knowledge is portrayed .....	11
4.2 What Wikipedians think about low female participation .....	12
<b>5 Key action points and Wikipedians' contribution to diversity in Wikipedia</b> .....	14
<b>6 Bibliography</b> .....	16
<b>7 Project and project partners</b> .....	18



## 1 Introduction

All over the world, Wikipedians contribute their knowledge, skills and time to develop Wikipedia and the Wikipedia community. Their commitment to producing and publishing free knowledge is, without doubt, truly exemplary. If we want to continue publishing a rich variety of high-quality articles in the future, efforts to consciously shape the social face of Wikipedia are going to become increasingly important. Every day, thousands of volunteers use Wikipedia's editing and talk pages, thus contributing to what are the world's biggest collection of knowledge and a key source of encyclopedic knowledge. For this kind of collaborative work, we must value diversity, tolerance and unity in diversity.

In view of declining editor numbers, the small proportion of female Wikipedians and the ever-changing structures within the system, it is in the interests of the entire Wikipedia community to join forces and make Wikipedia a truly inclusive space – now and in the future. “Inclusive” primarily means that Wikipedians should, actively and on their own initiative, value diversity at all times. Whenever a Wikipedian edits a page or takes part in a discussion, he or she works as part of the Wikipedia community and contributes towards the development of Wikipedia. In order to create a space where people can get involved in and where they can enjoy editing collaboratively, it is important that both long-time editors and newcomers feel welcome in Wikipedia and can participate on equal terms. For this to happen, all Wikipedians must play their collective and individual part in ensuring that when a person contributes to Wikipedia, their work is recognized and valued, and that, in difficult situations, everyone involved can be sure of fair treat-

ment and can rely on the support and solidarity of the community.

These are the considerations that gave rise to this working paper. This paper is part of the Wikipedia Diversity project, which Wikimedia Deutschland (WMDE) runs in cooperation with the Gender and Technology Center at Beuth University of Applied Sciences Berlin. In the paper, we present information from research and practical experience, as well as a variety of ideas and concepts related to fostering diversity in Wikipedia. We hope that this paper will help develop Wikipedia and allow us to work with Wikipedians on finding new pathways to greater diversity in our encyclopedia. We begin by focusing on gender in order to explore how we can find a lasting solution to getting more women involved in Wikipedia. The questions we address in this paper are: Why do so few women participate in Wikipedia? What does this lack of female participation mean for Wikipedia? And how can we inspire more women to help shape Wikipedia?

This working paper is the result of the first round of analysis carried out for the Wikipedia Diversity project. The first stage of the project involved researching the current status of Wikipedia's editors as a group, analyzing existing research from German-speaking and English-speaking countries, conducting individual talks with male and female editors, and holding explorative interviews with male and female Wikipedians. When we talk about **gender diversity**, we mainly refer to our interest in strengthening **team spirit** and **togetherness** in Wikipedia. However, the use of this term also expresses our interest in finding ways to sensitize the Wikipedia community to diversity issues, so as to find a respectful way of dealing with difficult situa-



tions, such as conflicts. In what follows, we describe what the existing research and practice tell us about gender relations in Wikipedia, why it is important for Wikipedia that more women are involved, and how the gap between the number of male and female editors might impact the quality of Wikipedia. We also explore how each Wikipedian can help create an environment where people treat one another with respect.

**We look forward to sharing thoughts and hearing ideas about gender diversity in Wikipedia!**

## 2 Diversity and what it means for Wikipedia

Diversity means both variety and difference. In a sociological sense, the term “diversity” is about encouraging variety and creating equal opportunities. Diversity can therefore promote cultural variety, variety in age, variety in gender, or other types of variety. The concept of diversity has its roots in the American civil rights movement; today it is linked to efforts to promote **equality, equal opportunities, anti-discrimination, participation and inclusion**.

The following are some examples of initiatives and measures related to diversity:

- **Diversity Charters**  
URL: <http://ec.europa.eu/justice/discrimination/diversity/diversity-charters/>
- **Germany's *Charta der Vielfalt* (Charter of Diversity)**  
URL (German only): <http://www.charta-der-vielfalt.de>
- **Germany's youth diversity project, Our Diversity**  
URL: <http://www.unserevielfalt.de/en/>

- **Equal Opportunities in Education and Research**  
URL: <http://www.bmbf.de/en/474.php>
- **Federal Conference of Women's Affairs Officers and Equal Opportunities Officers at Universities**  
URL (German only): <http://www.bukof.de/>

Various kinds of diversity could be relevant to Wikipedia. These include socio-demographic diversity (e.g. age, gender, background); diversity in organizational roles, that is, variety in the roles performed by men and women in organizational or community structures (e.g. editors and authors); and the epistemic diversity of, for instance, the knowledge presented in Wikipedia, i.e. knowledge diversity (e.g. variety of topics, selection of sources).

**Epistemic, or knowledge diversity**, covers aspects such as the variety of topics, viewpoints, relevance criteria and selection criteria with regard to, for example, the choice of relevant information and sources. It also concerns the kinds of approach taken to producing Wikipedia articles – such as the scope and type of resources in a body of knowledge, or the viewpoints included in a specialist area. (For further information on the term “epistemic diversity”, see Gläser, 2012). **Socio-demographic diversity** concerns everything from gender, ethnicity, nationality, age, and disability to religion, sexual orientation, income, family status, and level of education. (For further information on the term “demographic diversity”, see Mohammed and Angel, 2004). For the Wikipedia community, **role diversity** means having variety in the roles that Wikipedians can perform, e.g. editor, reviewer, administrator. (For further information on the term “role diversity”, see Gabriel and Liimatainen, 2000).



While not exhaustive, these three types of diversity provide examples of how complex and multidimensional this diversity concept is.

## 2.1 Diversity and group collaboration

We still do not know much about the interactions that might exist between the different types and dimensions of diversity when it comes to producing knowledge jointly for Wikipedia. It is possible to derive a few hypotheses from research into how diversity impacts heterogeneous teams within organizations. The research findings have shown, for example, that diversity can have both positive and negative effects on group performance (Jans, 2004; Boerner, Keding, and Hüttermann, 2012). These effects can be looked at from a resource perspective and a process perspective:

- **Resource perspective:** Socio-demographic diversity is regarded as a **valuable resource**, since, compared to homogenous teams, heterogeneous teams are likely to possess greater potential for expert knowledge, experience, opinions, and perspectives. This can lead to better decision-making processes and can produce more innovative solutions. By creating teams of people that differ in, say, age, gender, and cultural background, it is possible to tap into a larger pool of knowledge and life experience. This produces greater cognitive diversity, which can lead to better performance by the team, especially in tasks that require a high degree of cognitive flexibility (Jans, 2004; Boerner, Keding & Hüttermann, 2012).

- **Process perspective:** Socio-demographic diversity can, however, also be a cause of **dysfunctions** in group and organizational processes. Because similarities generally make people perceive the person with whom they are interacting as more attractive, those who see each other as similar will communicate more often and more intensively. Regular communication reduces conflicts and creates a stronger emotional and social bond. Perceived dissimilarity or otherness can therefore increase conflict levels and reduce social integration. This often results in heterogeneous teams splitting up into ingroups (the group a person belongs to) and outgroups (the groups a person does not belong to). Stronger social bonds develop within the ingroup, along with a powerful sense of “us.” This can intensify the marginalization of “the others” in the outgroup (Jans, 2004; Boerner, Keding & Hüttermann, 2012).

So if we want Wikipedia to avoid the negative effects of diversity, we need information about how to put diverse groups together. We also need to **consciously address** our own attitudes towards diversity. Furthermore, knowledge diversity is the foundation of Wikipedia’s reason for existing and as such it is an attribute that directly determines quality. Socio-demographic diversity paves the way for cognitive diversity, which in turn creates scope for knowledge diversity. For instance, people of different ages or with different educational backgrounds (socio-demographic diversity) have different attitudes and ways of thinking (cognitive diversity), which can be sources of different topics and viewpoints for Wikipedia articles (knowledge diversity). Given that there is a greater risk of conflicts arising and ingroups forming if otherness is



handled with a lack of thought, diversity within Wikipedia must be consciously managed so that we can use the strengths of our differences and minimize the problems they might cause.

## 2.2 Gender diversity and gender competence

In a sociological sense, the term “diversity” is about encouraging variety and creating equal opportunities. Diversity can therefore promote cultural variety, variety in age, variety in gender, or other types of variety. **Gender diversity** addresses issues of equal opportunities related to gender. The term “gender” is not used here in a biological sense, but rather as a social and cultural construct – as something that is learned and can therefore change. Unlike efforts designed to promote women, gender diversity makes a point of considering both the female and the male perspective. It aims to create, beyond the restrictive bounds of gender stereotypes, conditions that allow both men and women to realize their abilities and potential to the greatest extent possible. As such, gender diversity can make a valuable contribution to helping men and women develop as individuals and evolve their skills.

In this context, **gender competence** includes aspects such as knowledge of how gender relations are constructed in society, knowledge of the differences in male and female linguistic behavior and communication, knowledge of the latest research in the field, and the ability to deal constructively with gender-based differences in, for example, group processes, conflicts, and work situations. The starting point here is that while our actions and knowledge are shaped

by gender socialization, they are also affected by other aspects of diversity, such as age, background, education, etc.

## 3 Participation in the creation of Wikipedia

Wikipedia’s goal is to create a collaborative online encyclopedia based on voluntary contributions. The opening words “Welcome to Wikipedia, the free encyclopedia that anyone can edit” summarize the key mission: the collaborative creation and publication of free knowledge by everyone, regardless of their educational qualifications, country of residence, age, or gender. Although this vision of digital inclusion has sometimes been criticized as utopian (see Dobusch, 2013), the principles of openness and voluntary work remain central to Wikipedia’s identity.

### 3.1 Men and women in Wikipedia

Despite – or perhaps because of – these principles of openness and voluntary work, Wikipedia is commonly held to attract particular types of persons. Wikipedia contributors are generally perceived as diligent individuals with a thirst for knowledge and the desire to contribute to a greater goal. According to the Editor Survey 2011 by the Wikimedia Foundation, however, the facts dispel the myth of the typical Wikipediaian being a young male programmer who is still in education (WMF, 2011). The Wikipedia community is much more diverse than is generally expected, and includes many older and better qualified people. Twenty-six percent of Wikipedians are between 22 and 26 years old, while 28 percent are over 40



(WMF, 2011). Older Wikipedians also do more editing than younger contributors, and account for 36 percent of users with 10,000 or more edits. Sixty-one percent of Wikipedians who took part in the Editor Survey 2011 hold a college degree; only nine percent have no more than a primary school qualification. Forty-three percent of the survey participants were in full-time employment; 15 percent were in part-time employment and 42 percent were not currently employed (WMF, 2011). Ninety-two percent of editors have good IT skills, but only 36 percent of the survey participants have programming skills or the ability to develop applications (WMF, 2011). Diversity of age, educational qualifications, and skills among Wikipedians is therefore large.

However, the Editor Survey 2011 points out that there is a large discrepancy between the number of male and female contributors. According to estimates in the Editor Survey 2011, nine out of ten editors are male; in the Indian Wikipedia, this number is even higher – 97 percent of editors are male (WMF, 2011; Khanna, 2012). Several other surveys seem to confirm this picture. These include the:

- **UNU-MERIT Survey (2009):** the United Nations University (UNU-MERIT) Wikipedia Survey reports that around **13 percent** of contributors are female.  
URL:[http://www.wikipediaurvey.org/docs/Wikipedia\\_Overview\\_15March2010-FINAL.pdf](http://www.wikipediaurvey.org/docs/Wikipedia_Overview_15March2010-FINAL.pdf)
- **WMF Editor Survey (2011):** The Wikimedia Foundation Editor Survey reports that some **8.5 percent** of contributors are female.

URL:[http://meta.wikimedia.org/wiki/Editor\\_Survey\\_2011](http://meta.wikimedia.org/wiki/Editor_Survey_2011)

- **Clubhouse study (2011):** WP Clubhouse of the University of Minnesota (US) writes that women comprise around **16 percent** of new contributors.  
URL:<http://grouplens.org/system/files/wp-gender-wikisym2011.pdf>
- **MIT/NU Survey (2013):** “The Wikipedia Gender Gap Revisited” by the Massachusetts Institute of Technology and Northwestern University reviews current statistics and suggests a correction, estimating the number of female Wikipedians at around **16 percent**.  
URL:[http://mako.cc/academic/hill\\_shaw-gender\\_gap\\_revisited-DRAFT.pdf](http://mako.cc/academic/hill_shaw-gender_gap_revisited-DRAFT.pdf)

The discrepancies in the percentages show that the number of male and female contributors cannot be determined with complete accuracy (see Fig. 1 and 2), partly due to the fact that not all users choose to state their gender in the user settings and partly because the data, such as those in the Editor Survey, are based on voluntary self-descriptions, which only a very small number of Wikipedians submit. The Editor Survey 2011 is based on a survey of 5,073 users, who account for only 0.4 percent of all editors, according to Wikipedia statistics from 2011.

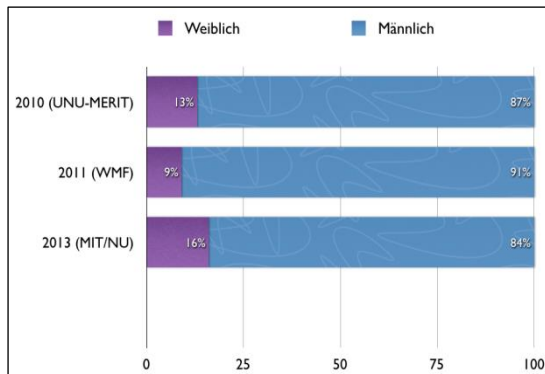


Fig. 1: Estimated share of female participants according to three different studies

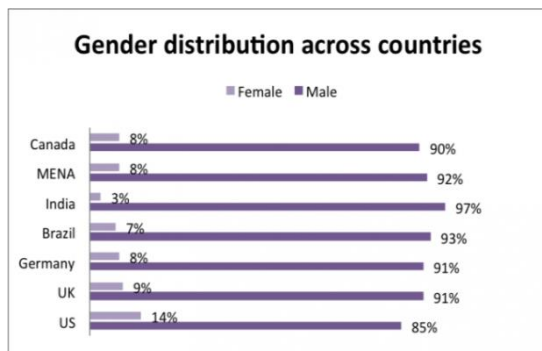


Fig. 2: Estimated share of female participants in different language versions of Wikipedia

However, Wikipedia is not the only Internet project with a low level of female participation. For example, there are also communities with more male than female active users in social media, such as Google+ and reddit, including social media that have a higher number of female members, such as Facebook und Pinterest (McCandless, 2012). There is also a low level of female participation in FLOSS initiatives and projects (FLOSS stands for free/libre and open-source software or free and open-source software). According to the FLOSS Survey 2012, just 1.1 percent of contributors developing open-source and free software are female (Ghosh et al., 2002). Some people have contested this figure and claim that the number of female users is higher than perceived, as many women choose gender-neutral name tags or

prefer to remain anonymous. Several FLOSS communities are trying to attract women with targeted outreach programs. Such measures can certainly have a positive impact, as shown by the GNOME Foundation program, for example (see GNOME, 2013) Gender differences are not limited to the contributor side in Wikipedia; they are also apparent among the readership. According to the UNU-MERIT survey, approximately 79 percent of Wikipedia's readers are male (Glott, Schmidt, and Ghosh, 2010).

Irrespective of the accuracy of these statistics on female editors in Wikipedia, a number of other surveys and reports highlight further differences in male and female editor participation:

- Women edit less than men (WMF, 2011; Lam et al., 2011).
- Female editors leave Wikipedia sooner than their male counterparts (Lam et al., 2011).
- Despite the rising number of new female users, the gender gap in Wikipedia has remained largely unchanged since 2005 (WMF, 2011; Lam et al., 2011).

These reports indicate that there are several aspects to the **gender gap** phenomenon in Wikipedia. The term "gender gap" denotes the differences in the percentages of men and women involved. The reasons for this imbalance are also discussed in this context (see Gardner, 2011).



### 3.2 Reasons for low female participation in Wikipedia

The following reasons for the low female participation in Wikipedia have been compiled from the findings of a number of studies (including WFM, 2010; Glott, Schmidt, and Ghosh, 2010; WMF, 2011; Lam et al., 2011; Hill and Shaw, 2011); interviews with male and female Wikipedians conducted as part of the Wikipedia Diversity project; and a large number of individual verbal and written reports from the Wikipedia community, including discussion pages, blog articles, and selected contributions from the book *Alles über Wikipedia und die Menschen hinter der größten Enzyklopädie der Welt* with experiences, reports, and anecdotes from female contributors, readers, journalists, and academics (WMDE, 2011). In general, our analysis reveals that there are many reasons for the low level of female participation, ranging from availability, personal circumstances, media preferences, and technology to sociocultural aspects including support for new contributors, accessibility, and communication aspects such as the working atmosphere and the tone of discussions in Wikipedia collaboration. These reasons are explained in greater detail below:

- **Lack of time, personal circumstances:** Reports and interviews with individual Wikipedians reveal that a **lack of time** prevents women (but also men) from editing for Wikipedia. This lack of time is frequently due to **personal circumstances**, mainly family and/or work **responsibilities**, especially for women with children and women of working age. According to the UNU-MERIT survey,

just 14.27 percent of the Wikipedians questioned have children, and 33.29 have a partner (Glott, Schmidt, and Ghosh, 2010). According to the WMF Editor Trends Study 2010 and the Editor Survey 2011, lack of time is among the most frequently given reasons for low or no activity in Wikipedia (see WMF, 2010; WMF, 2011). Individual reports have also shown that many people stop contributing to Wikipedia or drop out entirely when they start a family or a new job. However, they may become active again at a later stage. These individual statements need to be examined in long-term studies on individual Wikipedia biographies.

- **Media preferences:** Studies on and reports by female Wikipedians reveal that many women prefer other media activities to editing for Wikipedia. They mostly prefer **social media**, such as Facebook and Pinterest, where the level of female participation is far higher than 50 percent, even reaching 71 percent in the US (Comscore, 2010; Duggan and Brenner, 2013), as well as online and mobile games, where women account for approximately 45 percent of users (ESA, 2013), rising to over 55 percent in the case of social gaming (ISG, 2010). Reasons for the high level of female interest here are **social networking** and communication opportunities with family, friends, and acquaintances (especially in the case of social networks such as Facebook) on the one hand, and a preference for **visual communication** (especially on visual platforms such as Pinterest and Instagram) on the other (Comscore, 2010). According to the international survey Women on the Web,



women in most parts of the world spend more time on social media than men do, and mainly do so for the purpose of networking and communicating (Comscore, 2010). The Editor Survey 2011 also shows that among Wikipedians, more women than men use social media, especially Facebook (WMF, 2011).

- **Technology and usability:** Technical difficulties such as Wikipedia's complex structure with its different types of pages and information and/or standard Editor feature are seen as further reasons that keep women away from Wikipedia. Technical problems in working with Wikipedia were reported by just 16 percent of the participants in the UNU-MERIT survey as a reason for avoiding editing (Glott, Schmidt, and Ghosh, 2010). Just 8.8 percent stated that they would be more likely to edit Wikipedia if the technology were easier to use. The current switch to Visual Editor will enable users to edit Wikipedia pages without having to be familiar with the Wiki syntax. It is hoped that this will lower the barriers for new editors, both male and female.
- **Support and accessibility:** Reports by and interviews with individual Wikipedians have revealed that many women, and especially new contributors, would like more support from experienced Wikipedians. The WP Clubhouse survey shows that women leave Wikipedia sooner than men do, which may be related to the fact that more contributions by female than by male Wikipedians are **deleted**, especially those by new contributors (Lam et al, 2011). According to the Editor Survey 2011, approximately 43 percent of

editors had to deal with their contributions being deleted without further explanation (WMF, 2011). Individual reports by and interviews with Wikipedians emphasize the need for more support and greater accessibility for women in this respect (see Gardner, 2011b). The fact that particular **roles** in Wikipedia, such as that of administrator, are usually taken on by men is seen as a sign of limited access. (According to individual statements by female Wikipedians, the number of female administrators is currently higher than the total number of female editors would lead one to expect. However, these assumptions should be reviewed in the context of further analyses on the question of roles and gender in Wikipedia). The dominance of male groups (ingroups) is mentioned in this context, i.e. the formation of male groups, which can stop women from participating in Wikipedia by deleting their contributions without further explanations or by blocking access (see Lam et al., 2011).

- **Atmosphere and tone:** Individual reports by and interviews with Wikipedians mention the prevailing **working atmosphere** and **tone of discussions** as important reasons for low female participation in Wikipedia. Women (but also men) stated that they left Wikipedia because they felt personally attacked by other users, were confronted with prejudices and stereotypes, or simply lost their initial drive to edit because of the endless discussions the task involved (see Gardner, 2011b). According to the Editor Survey 2011, around 23 percent of female editors have been subject to



harassment in Wikipedia (WMF, 2011). Women rate the general tone of communication in Wikipedia more negatively than men do. In comparison to the generally high level of satisfaction regarding interaction in the Wikipedia community (satisfaction index), with a Wikimedia Editor Satisfaction Index (WESI) average of 7.65 (out of a maximum of ten points), women are decidedly lower down on the scale (WMF, 2011). An unfriendly and rough manner, power struggles, vicious verbal exchanges, sexist comments and outright harassment, as well as the general avoidance of gender-sensitive language are among the reasons given for the lower rate of female satisfaction in the Wikipedia community (Gardner, 2011b; Schlesinger, 2011).

Ganz (2013) identifies communication culture as a decisive factor in determining whether people prefer to consume passively or decide to take an active part in shaping content.

The overall picture emerging from the analysis of surveys, reports, and interviews with individual Wikipedians is complex. A lack of time, technical usability barriers (e.g. navigation, editability), and a variety of sociocultural and communication issues (style of communication, working atmosphere) can, however, definitely be identified as reasons for low female participation in Wikipedia.

## 4 What does low female participation mean for Wikipedia?

Low female participation in Wikipedia also produces various effects. Internally, it causes problems such as distortions in how knowledge is portrayed, and articles on specific topics, e.g. biographies of women, being underrepresented. Externally, it damages Wikipedia's public image (Dobusch, 2013).

### 4.1 Distortions in how knowledge is portrayed

Given that Wikipedia sets high standards for the quality of the content on its pages, the issue of potential links between the unequal participation of male and female editors and the **quality of the knowledge produced** is especially relevant. Wikipedia is currently investigating **systemic bias** (see, e.g. [http://en.wikipedia.org/wiki/Wikipedia:Systemic\\_bias](http://en.wikipedia.org/wiki/Wikipedia:Systemic_bias)), which occurs when knowledge is portrayed in a distorted way because certain types of editor (e.g. women, people from the southern hemisphere, and non-English-speakers) are underrepresented in Wikipedia articles. These distortions might result in a one-sided view of certain topics, e.g. a focus on military aspects in the portrayal of historical topics, or in a lack of certain articles, e.g. biographies of famous female academics, politicians, and authors (Aragon et al., 2012). Furthermore, in discussions about individual Wikipedia articles, a point of view held by an overrepresented group can influence and determine decisions on whether certain topics and sources are relevant. This often happens subconsciously or unintentionally, for example when geopolitical developments are



portrayed from a North American perspective.

When gender distorts the portrayal of knowledge, it is known as **gender bias**. In discussions where far more men than women are present, it is easy for certain perspectives to dominate the process and the outcomes. In addition, if few women participate in Wikipedia, it can mean that fields such as art, philosophy, and religion, which women prefer to edit, are underrepresented. These fields will be smaller in scope and less detailed than fields such as history and politics, which are mainly edited by male users (Lam et al., 2011). After evaluating the individual reports by and interviews with male and female Wikipedians, we found that they identified several possible types of **gender bias**:

- Topics that are more likely to be edited by men than by women are more detailed or larger in scope (Lam et al., 2011).
- Biographies of, e.g., female academics, politicians, and authors are underrepresented (Aragon et al., 2012).
- Decisions on categorizing content, e.g. compiling a special list for female American authors, are exclusionary or discriminatory (Filippachi, 2013; Neary, 2013).
- Certain perspectives dominate, e.g. historical and political content tends to focus on military history (source: individual reports from interviews with Wikipedians).
- Stereotypes are used – for example, female biographies prioritize information that highlights their roles as wives and mothers (source: individual reports from interviews with Wikipedians).

## 4.2 What Wikipedians think about low female participation

In spring 2013, as part of the analysis phase of the Wikipedia Diversity project, we conducted semi-structured, problem-centered interviews with eight male and female Wikipedians. The questions focused on the reasons for and the consequences of low female participation in Wikipedia.

Overall, we obtained many valuable insights into how Wikipedians feel about the low number of female participants. Respondents felt that the rough tone used in discussions, rigid structures, and verbal attacks by other Wikipedians were the main causes of the problem. Both male and female Wikipedians stressed that the way people currently communicate in Wikipedia is having a **negative impact**. One of the main things to come to light in the interviews was the desire for a friendlier atmosphere and for people to treat each other with respect. Within the context of collaboratively producing knowledge for Wikipedia, two key issues concerning communication and quality came to light:

- Communication within the Wikipedia community needs to improve and be the focus of critical appraisal.
- People need to be made aware that having female authors involved in Wikipedia will boost the quality of the processes and products of Wikipedia's knowledge work.

Regardless of whether they were male or female, respondents repeatedly focused on the way Wikipedia authors treated each other. They mentioned established structures and hierarchies within the Wikipedia com-



munity, and pointed to the exclusionary, even aggressive style of communication used among Wikipedians. As well as the constant references to and criticisms of communication as the reason for the current drop in author numbers, respondents said that women tend not to participate because they don't have the time. The following quotes explain this point in more detail:

*"WP articles are mostly written at night. Women have less time on their hands, as they're still the ones most likely to look after the kids. You need staying power for WP – it's a Sisyphean task, what with all those discussions and that culture of communication."*

*"People use an impolite tone in WP. It's very direct and it takes some getting used to."*

*"Without women, the system just reproduces itself. It's a vicious circle – women feel that they're being ignored because they're not part of it."*

The Wikipedians we interviewed have a number of expectations as regards shrinking the gender gap in Wikipedia. They felt that having more women involved would achieve a much-needed increase in the variety of topics contained in Wikipedia. Respondents said that having variety in the topics was a mark of quality, and stressed that different viewpoints were an indicator of "better, more complete products."

As well as noting the importance of including female biographies, the respondents highlighted the need for expanding the viewpoints contained in existing topics. Their main concern, however, was not about having "more female topics written by women".

Instead, they were interested in bringing to existing articles different angles and narratives that were not considered as relevant in the past. These might include different definitions of "work", or presenting more sociocultural, rather than military, viewpoints on historical events. The following quotes reflect the Wikipedians' opinions:

*"Different viewpoints make for a better, more complete product. A homogenous group cannot answer the question that asks for a holistic view of the world. At the end of the day, the breadth of topics is a mark of quality – one that can be raised if more women get involved."*

*"Having more women on board will also stir things up and perhaps lead to an awakening. We're very complacent. We're resting on our laurels and the project is stagnating at the moment. It's not that authors are disappearing as such, but we are seeing a trend towards fewer and fewer people having to keep their eye on more and more articles for things like errors, vandalism, and attempts to manipulate the content. The more women we have, the more motivated everyone will be. If the ratio evens out a bit, then the community might make more of an effort and gradually become more open."*

*"The more women there are, the more balanced discussions will be. The more women there are, the friendlier things will become..."*

In conclusion, we can say that higher female participation would benefit the Wikipedia community as follows:

- The breadth and diversity of topics would expand.





- Existing topics would develop, in particular through the inclusion of new viewpoints and angles.
- The atmosphere and the quality of community life would improve (e.g. the tone would become friendlier and more respectful, criticism would become constructive, and conflicts would be dealt with in a more professional way).
- Wikipedia's image would improve and the project would become more attractive to new editors (male and female).

## 5 Key action points and Wikipedians' contribution to diversity in Wikipedia

As part of the Wikipedia Diversity project, we have produced five key action points for promoting gender diversity and diversity in

general (see Table 1). These are: (1) increasing understanding and awareness of the issues involved in gender diversity and the gender gap; (2) creating a more open and welcoming culture within Wikipedia; (3) promoting respectful conduct within the community and a positive communication climate; (4) improving our understanding of the quality of knowledge production within Wikipedia and the links between socio-demographic and epistemic diversity; and (5) encouraging all Wikipedians to participate and supporting their efforts to improve gender diversity.

We have compiled some initial ideas on measures to promote gender diversity and diversity in general within German-language Wikipedia for each of these five action points. As a next step, we would like to design and test these and other methods together with the Wikipedia community.

Action point	Measures (examples)
<b>Understanding and awareness</b>	<ul style="list-style-type: none"> <li>• Providing information materials and diagrams</li> <li>• Producing reports, including research analyses</li> <li>• Producing learning materials and open educational resources</li> <li>• Developing multimedia educational services</li> <li>• Offering publications and lectures</li> <li>• Creating a diversity portal</li> <li>• Ensuring good practice</li> </ul>
<b>An open and welcoming culture</b>	<ul style="list-style-type: none"> <li>• Organizing workshops and meetings</li> <li>• Presenting role models among and profiles of Wikipedians</li> <li>• Developing mentoring and mediation concepts</li> <li>• Providing information and educational services</li> <li>• Providing forums to share ideas</li> </ul>





<p><b>Conduct and communication</b></p>	<ul style="list-style-type: none"> <li>● Providing services to encourage learning, such as giving and receiving feedback, and conflict resolution</li> <li>● Providing educational materials and films</li> <li>● Holding competitions for ideas, such as concepts and initiatives</li> <li>● Introducing mechanisms to improve Wikipedia’s reputation, such as awards for model communicators</li> </ul>
<p><b>Quality of knowledge production</b></p>	<ul style="list-style-type: none"> <li>● Providing information materials and analyses</li> <li>● Researching epistemic diversity and links to gender aspects</li> <li>● Visualizing the effects of the gender gap</li> </ul>
<p><b>Participation and involvement</b></p>	<ul style="list-style-type: none"> <li>● Developing WomenEdit and other formats</li> <li>● Organizing local networks and meetings</li> <li>● Developing multiplier concepts and groups</li> <li>● Expanding expert and promoter networks</li> </ul>

Table 1: Key action points in the Wikipedia Diversity project

To ensure that sensitivity to diversity aspects is developed effectively in the long term and to improve female participation in Wikipedia, we would like to combine the knowledge available within the Wikipedia community with external findings from, for example, research and practice on gender diversity. We suggest an approach based on the principles of open innovation – that is, a participative and cooperative approach to developing innovative solutions. The word “innovation” should be understood here more as **social innovation** rather than as product innovation. In this case, social innovation means creating new structures and practices within Wikipedia to promote diversity. We have provided these initial ideas for implementing the five action points in order

to offer an impetus for developing social practices and effecting long-term change from within. Wikipedians contribute to Wikipedia in every discussion point, decision, and edit they make. These contributions do not just affect the quality of the final results (such as Wikipedia articles), but also the quality of the processes (such as interaction within the community). However, this requires sensitivity towards the various aspects of diversity within the Wikipedia community, and the basis for this is respectful and positive interaction between community members, regardless of gender, age, background, or other characteristics. We regard the diversity within the community as a valuable resource that can also be deployed outside Wikipedia in professional



situations and in other political and social activities.

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## 7 Project and project partners

### Wikipedia Diversity project

The Wikipedia Gender Diversity Concept is the title of a research and development project that is being carried out in cooperation with the Gender and Technology Center at Beuth University of Applied Sciences Berlin in order to identify new ways of encouraging greater participation in Wikipedia. The project focuses on the causes and effects of the gender gap within Wikipedia and aims to establish effective measures to close it. The objective is to develop an approach that works for women and then to apply it to other target groups that are underrepresented within Wikipedia. This development process will be based on the open innovation approach to ensure that it takes the form of an open and participative dialogue with experts and the communities. Wikimedia Deutschland aims to explore the significance of diversity within Wikipedia. The project brings together all previous findings on female underrepresentation among Wikipedia authors. Wikipedians and various stakeholder groups will then use this knowledge to develop and test various approaches for closing the gender gap. These findings should also help to develop approaches that can be applied to other groups underrepresented within Wikipedia.



## Partners

- Wikimedia Deutschland e.V.
- Beuth University of Applied Sciences Berlin
- Gender and Technology Center
- Visiting Professor for Digital Media and Diversit

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