The discourse dynamics in the context of gender bias in the online encyclopaedia Wikipedia

This paper investigates the online encyclopaedia Wikipedia as a digital discursive space through which discursive dynamics can be reconstructed. These discursive dynamics in Wikipedia will be illustrated in relation to a topic which has become the focus of public attention over the last few years: gender equality and diversity are commonly discussed at great length in the media. Wikipedia, too, has been scrutinized critically to this end on numerous occasions, leading to the topic also making it onto the agenda of the online community: Wikipedia authors deal with numerous aspects of gender diversity on their talk pages, including gender bias (lack of epistemic diversity) and the gender gap (lack of socio-demographic diversity), in relation to the online encyclopaedia.

The interdependencies between this meta discourse constructed by members of the Wikipedia community and the composition of Wikipedia articles are analysed in a case study on the depiction of male and female Nobel laureates in the German version of the online encyclopaedia which also takes account of Wikipedia's multimodal dimension. Alongside a quantitative analysis of the metadata for 92 Wikipedia articles on the biographies of Nobel laureates, the study includes a qualitative content-based examination of the two Wikipedia articles on *Marie Curie* and *Pierre Curie*. The quantitative analysis of the metadata for the Wikipedia articles on 46 female and 46 male Nobel laureates initially suggested that – from a purely quantitative perspective – women who had been awarded a Nobel prize were not put at a disadvantage compared to men with a Nobel prize: the articles on female Nobel laureates were generally more extensive in scope, had undergone a greater number of revisions and included more images.

A closer inspection of the version histories for the two articles on *Marie Curie* and *Pierre Curie* from a qualitative content-based perspective revealed, however, that the article under the headword *Marie Curie* exhibited linguistic phenomena that, on occasion at least, illustrated a tendency towards gender bias in relation to the female Nobel laureate.

In an early version of the article on *Marie Curie* (2002–2007), relational terms which emphasized domestic roles or interpersonal relationships (e.g. *Witwe* [widow]) were included in prominent positions in the article, for example in the headings, which meant that they also appeared in the automatically generated table of contents. The article was dominated by domestic events such as getting married or deaths in the family and these events were also used to structure it (*Das Leben als verwitwete Wissenschaftlerin* [Life as a widowed scientist]). Starting in 2007, guidelines were introduced on avoiding relational terms in biographical Wikipedia articles. As a consequence, the article was revised comprehensively in order to focus on Marie Curie's scientific achievements.

However, even in later versions of the article, textual elements can be found which, on occasion at least, contribute to gender bias, namely the categories at the bottom of a Wikipedia article which are used to classify them in the knowledge system of the online encyclopaedia. Alongside the fact that gender-sensitive categories are still missing in the German version of Wikipedia 20 years later, a closer look at the discursive dynamics in the article under consideration revealed that in 2017 the category of *Ehepartner einer berühm*-

ten Person [Spouse of a famous person] was added by a male author, which trivialized Marie Curie's achievements. This change piqued the interest of a Wikipedia author who identified herself on her user page as a member of the feminist initiative "FemNetz". She decided to edit the article and deleted the category, adding a cross-reference to the Meta-Wiki. No author objected to the edit. This category was never added to the article on *Pierre Curie*.

In Wikipedia's Meta-Wiki, there are numerous guidelines or tips on how images can also contribute to a distorted depiction of individuals, women in particular. Despite this, numerous (family) photos have been added to the article on *Marie Curie* over the years which show the Nobel laureate with members of her family or male colleagues; in several cases, men were in the middle of the photo. Even when the positioning of people on historical photographs is contingent on the social-historical times in which they were taken, it is questionable whether including such images in Wikipedia articles on female Nobel laureates meets the expectations of an online encyclopaedia in the 21st century. It is even more questionable when relational terms are subsequently added to the caption below groups of people on photos which do not include male members of the family (*Die Witwe mit ihren jungen Töchtern Eve und Irene* [The widow with her young daughters Eve and Irene]), as though it were necessary to verbalize and legitimize the absence of men on the photos.

In relation to the case study at hand, it was possible to reconstruct a controversy surrounding the photographic material in relation to a discursive episode in September 2017 which points to an awareness of aspects of gender bias in this part of the digital discursive space in Wikipedia. The associated re-contextualizations or new arrangements of text and images were understood on a theoretical level as discourse dynamics. The fact that these controversies and proposed revisions to very popular Wikipedia articles are sometimes ignored is proof of the great relevance of projects and initiatives in connection with gender diversity in Wikipedia and on digital platforms in general.