Bringing Talk Pages to The Front: An Interface Design

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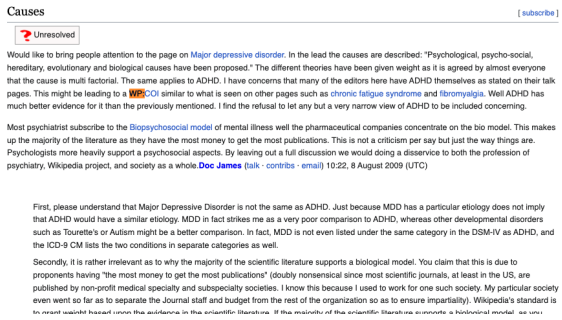
Keywords: Disputes, Talk Pages, Knowledge, Wikipedia Policies, Interface Design

Introduction

The development of Wikipedia depends on its quite radical construction process, reflected in its motto "the free online encyclopedia that *anyone can edit*," which contributes the tremendous success of Wikipedia as an online source and community. On the other hand, Wikipedia's policies and guidelines give rise to relatively conservative standards for knowledge inclusion. For instance, certain types of knowledge considered "invalid" by Wikipedia policies tend to be rejected, including knowledge from oral histories, emerging scientific studies and personal experiences [Gallert et al.2016]. The tension between radical construction process and conservative standards for knowledge inclusion is manifested through disputes among editors on the talk pages, as they refer to Wikipedia policies and disagree about whether particular knowledge should be included in the article pages or not. Figure 1 shows an example.


Causes [subscribe]

Unresolved

Would like to bring people attention to the page on Major depressive disorder. In the lead the causes are described: "Psychological, psycho-social, hereditary, evolutionary and biological causes have been proposed." The different theories have been given weight as it is agreed by almost everyone that the cause is multi factorial. The same applies to ADHD. I have concerns that many of the editors here have ADHD themselves as stated on their talk pages. This might be leading to a WP:COI similar to what is seen on other pages such as chronic fatigue syndrome and fibromyalgia. Well ADHD has much better evidence for it than the previously mentioned. I find the refusal to let any but a very narrow view of ADHD to be included concerning.

Most psychiatrist subscribe to the Biopsychosocial model of mental illness well the pharmaceutical companies concentrate on the bio model. This makes up the majority of the literature as they have the most money to get the most publications. This is not a criticism per say but just the way things are. Psychologists more heavily support a psychosocial aspects. By leaving out a full discussion we would doing a disservice to both the profession of psychiatry, Wikipedia project, and society as a whole.**Doc James** (talk - contribs - email) 10:22, 8 August 2009 (UTC)

First, please understand that Major Depressive Disorder is not the same as ADHD. Just because MDD has a particular etiology does not imply that ADHD would have a similar etiology. MDD in fact strikes me as a very poor comparison to ADHD, whereas other developmental disorders such as Tourette's or Autism might be a better comparison. In fact, MDD is not even listed under the same category in the DSM-IV as ADHD, and the ICD-9 CM lists the two conditions in separate categories as well.

Secondly, it is rather irrelevant as to why the majority of the scientific literature supports a biological model. You claim that this is due to proponents having "the most money to get the most publications" (doubly nonsensical since most scientific journals, at least in the US, are published by non-profit medical specialty and subspecialty societies. I know this because I used to work for one such society. My particular society even went so far as to separate the Journal staff and budget from the rest of the organization so as to ensure impartiality). Wikipedia's standard is

Figure 1: Part of an example dispute on talk page

Talk pages at the "back end" tend to be overlooked by Wikipedia readers and other stakeholders [Barrett2008]. However, talk page disputes provide valuable insights to knowledge diversity, article trajectory, and knowledge construction process. Editors communicate their diverse perspectives in disputes, and failing to include knowledge they disputed about potentially results in biased exposure to collective knowledge, lack of useful information, and even knowledge gaps [Koerner2019,Miquel-Ribé and Laniado2020, Miquel-Ribé2019]. Hence, to avoid these negative impacts, we recognize the need to develop an interface design as an exploratory work which aims to guide stakeholders' attention to talk page disputes more directly.

Prior work on pluralism and feminist epistemology [Bardzell2010] suggests designs that enable diverse perspectives and attend to knowledge production *process* in a more transparent way. Menking and Rosenberg [Menking and Rosenberg2021] also envision an interface design that provides more transparent connections between "back end" and "front end." Inspired by prior work, this workshop paper aims to surface disputed knowledge to improve transparency of knowledge construction process in Wikipedia. By understanding how Wikipedia policies affect knowledge on article pages during a dispute and bringing this process to be more visible to the "front end" in summary within hover boxes, we emphasis the importance of the *process* of knowledge construction on top of the specifics of individual contributions, which we believe will benefit Wikipedia community.

Our approach

In this section, we describe our approach: First, we identify disputes in articles' talk pages; Then, we detect and summarize the effects of these disputes on the corresponding articles; Last, we sketch out our design ideas for displaying the summary to article viewers and editors.

0.1 Identifying disputes

Conceptually, we define dispute as "a prolonged discussion by a number of different people on the same subject" [Bykau et al.2015]. Computationally, we apply several filters to identify relevant threads:

- Top 20% threads in the number of comments under the same header which involves more than 2 editors
- Link to Wikipedia policies or mentioning Wikipedia policies in the threads
- At least one editor in the thread make a revision to the article within the same timeframe as the thread's occurrence

We consider articles under the section of Science, Biology or Health found in Wikipedia:List of controversial issues [Wik2024] as our initial sample, and end up with 3396 talk page threads (8.78% of all talk page threads in selected articles) in our dataset.

0.2 Summarizing effects of controversies

We will look at the article page revisions from editors who participated in the thread within the time duration when each dispute happened, i.e., the effects of disputes to article during and after the disputes happened. Then, we will summarize the effects by assigning text summarization tasks to Large Language Models such as GPT4.0. We will prompt engineer along with specific information as the inputs to generative AI, including the entire thread, and edit history from editors.

0.3 Displaying information

To make the process for knowledge rejection impacted by Wikipedia policies more visible to editors, we design a hover box which consists the summary generated by generative AI (Fig. 2) and the link to the specific thread. We will search by keywords to locate the section in the article page where the dispute centers around. We will then highlight the text in article page, with a hover box pops up when article viewers and editors hover over. They will also be able to click on the link to the particular thread.

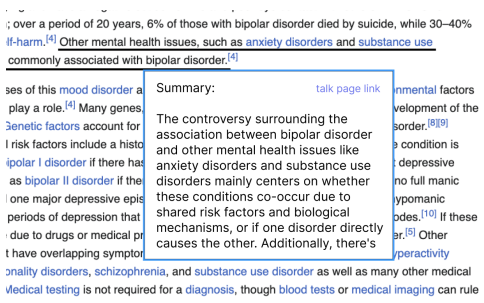


Figure 2: Interface design with dispute summary

0.4 Future Analysis

To evaluate our design, we plan to recruit 5 Wikipedia experts and conduct a small group panel, asking specific questions about the interface. These qualitative results will help us understand our design from the expert perspective, which will teach us valuable lessons such as Wikipedians' comfort level with generative AI to complete tasks such as summarization of diputes between editors. More importantly, they help us to evaluate whether this interface design makes knowledge construction process more transparent, and potentially identify trade-offs between transparency and information overload.

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