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Reflection 1

Confronting derogatory and easily debunked information about oneself, prominently displayed just beneath the Google search bar, is an unsettling reality for countless individuals. Google's autocomplete feature often elevates sexist and racist suggestions to the forefront, shedding light on a disconcerting aspect of the digital age. This troubling fact was brought to light for me through Safiya Umoja Noble's book 'Algorithms of Oppression.' Noble's work reveals how search engine results, which wield incredible power in the digital age, can become conduits for misinformation and the dissemination of bigoted ideas. However, addressing this issue requires a delicate balance. Balancing the need to modify algorithms and program functionality for mitigating negative behaviors must be approached judiciously, as excessive modification can undermine software transparency, perpetuate algorithmic biases, and elevate the risk of unintended consequences.

One of the most prolific ways that negative consequences rear themselves when modifying algorithms is through undermining software transparency. The idea refers to the clarity and comprehensibility of an algorithm's operations and decision-making processes, ensuring that they can be easily understood and scrutinized by humans. It involves making the inner workings, data inputs, and logic of algorithms accessible and accountable to promote fairness, accountability, and trust in their use. With the use of an example from ‘Algorithms of Oppression’, "Women..." searches, despite the content in the google autosuggestions being inaccurate and sexist, the most common search queries are, in fact, based on what users frequently look up after entering "Women." Any attempts, regardless of their intentions, to alter these auto suggestions compromises the site's functionality and algorithm transparency making it unclear how these autosuggestions are determined in the first place. The loss of software transparency makes it impossible to scrutinize these softwares and ensure that they operate under a proper standard of ethics.

Another negative consequence lies in the introduction of Algorithmic Biases into the system. Algorithmic biases refer to unfair and discriminatory outcomes in automated decision-making processes, often resulting from biased data or flawed algorithm design. These biases can perpetuate existing inequalities and unfairly impact certain groups, raising concerns about fairness and ethical implications in various applications, from hiring to criminal justice. Taking the reverse example from ‘Algorithms of Oppression,’ modifying Google's autocomplete suggestions for 'Men...' with the intention of curbing inflated egotistic ideas, while well-intentioned, could inadvertently lead to dangerous individuals perceiving themselves as targets of attack, potentially undermining the service's intended purpose and introducing a bias. The introduction of algorithmic biases villanizes certain people either making good people seem awful through poor data or causes bad people to dig into the worst aspects of their character even more.

The negative consequences of software modification can often involve unintended outcomes, making them among the simplest yet significant issues to consider. In systems, the more complex the modifications, the higher the likelihood of unexpected problems arising. This complexity can render the software nonfunctional and convoluted. An illustrative case is the alteration of YouTube's content moderation algorithm². Initially aimed at curbing the spread of extremist content and misinformation, this algorithm ended up demonetizing legitimate content, suppressing LGBTQ+ videos, and unintentionally pushing creators toward more extreme or controversial topics in pursuit of views and engagement—a stark contrast to the initial intent. Another instance of unforeseen repercussions is Twitter's algorithmic timeline³. Introduced to enhance user engagement and provide a more personalized experience, it departed from the chronological order of tweets. However, this move backfired for some users who felt that Twitter was curating their content and potentially filtering out crucial tweets from their feeds, undermining their user experience and engagement. This backlash ultimately forced Twitter to offer the option to revert to a purely chronological timeline. These examples highlight how software modifications can inadvertently amplify their negative impact on the world compared to their original intentions.

In conclusion, the reflection on the impact of algorithmic modifications highlights the delicate balance between addressing issues of misinformation and bigotry while preserving software transparency and avoiding unintended consequences. Safiya Umoja Noble's insights from 'Algorithms of Oppression' emphasize the power and responsibility that search engine algorithms wield in the digital age. As we navigate this complex terrain, it becomes evident that excessive alterations to algorithms can lead to a loss of transparency, perpetuate algorithmic biases, and, in some cases, worsen the very problems they seek to solve. The need for thoughtful and judicious approaches to software modification, ensuring that the pursuit of positive change does not inadvertently amplify negative consequences. In this evolving digital landscape, balancing innovation with ethics remains a critical challenge for creators and technology platforms alike.

Citations:

1. Noble, Safiya Umoja. Algorithms of Oppression: How Search Engines Reinforce Racism. NYU Press, 2018.
2. Buntain, Cody, et al. "YouTube Recommendations and Effects on Sharing Across Online Social Platforms." Introduction. New Jersey Institute of Technology, USA, New York University, Center for Social Media and Politics, 2018.
3. "Twitter Unveiled New Algorithmic Timeline Feature after #RIPTwitter Backlash, and the Sky Didn't Fall." New York Daily News, 10 Feb. 2016, https://www.nydailynews.com/2016/02/10/twitter-unveiled-new-algorithmic-timeline-feature-after-riptwitter-backlash-and-the-sky-didnt-fall/.