INFO 215: Social Aspects of Information Systems

Assignment 3

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Self-Reflection on Recommendation Systems in Social Aspects of Information Systems

INFO 215 is a course that has altered our perspective on technology. Our emphasis on technology has gradually evolved from technical feasibility and application to the impact of technology on the entire industry, and even on human society as a whole. Because the impact of social technology can be either a big lift or a great damage to social development, we must be more cautious in our approach and study of technology. We chose recommendation systems on online shopping platforms and social networking platforms as the subject of this assignment to investigate them from the standpoint of social technology and to provide our own views and ideas.

First of all, the problem of algorithmic bias is one of the inevitable problems in the design of recommendation system algorithms because they reflect the beliefs, viewpoints, and prejudices of the people who create and mold them. For example, if the social platform algorithm discovers that I enjoy Chinese food, it is more likely to appear in future China-related recommendations and may even affect the political ideas pushed to me, which are frequently highly subjective. This can have a subtle impact on our lives, especially for many teenagers. "Algorithmic bias in the context of information systems can be thought of as systematic and repeatable errors that create unfair or prejudiced outcomes." (Chandnani & Agosto, 2022) As political advocacy goes online, the design of recommendation algorithms on social platforms is more likely to contain political properties.

However, from the perspective of the sharing economy, recommendation systems may be an indispensable enabler. With the introduction of the "Collaborative Consumption" (CC) concept, it was realized that it may provide some solutions to "wicked problems" (Buchanan, 1992). Many

purchasing platforms, for example, are beginning to provide more recommendations for small businesses, with optimized recommendation systems to assist small businesses in growing. At the same time, coupled with social networks, they can play an essential role in the early expansion of small businesses that lack strong offline sales channels since they usually "rely on platforms with peer-to-peer interaction, which in turn rely on users being motivated to continue using and engaging through social networking sites (SNS)." (Hamari et al., 2016)

Another contentious aspect of a recommendation system is privacy. The recommendation system's services are highly personalized, thus the algorithms frequently gather a lot of data about you in order to find a model that best fits your unique personality. On a video website, I once came across a pretty intriguing gaming video. An hour after closing the video website and opening another shopping app, I noticed a recommendation for this game on the app's home page. Although knowing the existence of the recommendation system, when it is intuitively displayed on my phone, I was instantly creeped out because "after all, it is creepy if you know that someone else is always watching, but you can never really know who or why." (Seberger et al, 2021) We must consider the potential negative implications of the recommendation system in addition to the convenience it offers. An article can support our viewpoint, "when affective discomfort is a normalized aspect of app use and app use continues to proliferate and mediate aspects of daily life." (Seberger et al, 2022)

At last, the usage of recommendation systems may have the impacts that make the online society dystopian in some ways. It can be foreseen that, as more people use such recommendation systems, Internet corporations will have access to more data to enhance their algorithms, and

further ingraining these systems into our daily lives and potentially paving the way for the growth of mass surveillance or "surveillance capitalism". The recommendation system will create a closed information loop between individuals of various social levels, expanding the gap between the wealthy and the poor. For instance, recommendation systems may spread the information that is Note that regardless of how convenient the recommendation system may be for us, "it doesn't matter which technology is used to identify people: what matters is that we can be identified, and then correlated and tracked across everything we do." (Naughton, 2020)

Based on the foregoing discussions, we believe that there are still numerous flaws in the current recommendation systems and related legal requirements. However, since this is a brand-new innovation brought by the growth of Internet technology and an increasing number of people are using the recommendation system, we must unavoidably acknowledge that it is ingrained in our daily life. For sure, we will continue to use the recommendation system, but we should treat it with a more cautious attitude. Government oversight needs to be strengthened, companies need to uphold their moral standards, and users need to keep their privacy and safety in mind when using the recommendation system. We should learn that the significance of sociotechnical analysis cannot be underestimated, whether as technology product designers and developers or as general public beneficiaries.

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