White Paper: Algorithms as Audiences

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When we think about and discuss identity in online environments, it is often considered to be a series of iteratively performative acts that are observed by audiences and mediated by the platform designers who created that online space [1]. Discussion around identity construction and consumption in online spaces often focuses on how other users are seeing, interpreting, and reacting to these iterative identity performances. Yet there is another group that is overlooked when discussing online audiences – algorithms.

Just as human audience members see, consume, and respond to identity performances in digital settings, so do algorithms. But unlike their human counterparts, who might have some sense of what online decorum dictates as an appropriate response (or nonresponse), algorithmic audience members lack that sense of contextual right and wrong. Algorithms are designed to do a specific task – filter, rank, suggest, decide – in response to the data generated by users and will do so without concern for the appropriateness of their task. In other words, algorithms simply "do as they are designed to do."

For the most part, the approach of "do as designed to do" works well. The context in which the algorithm operates is unimportant. Algorithms take what users like, follow, comment, and search, aggregate this data, and deliver it back in the form of suggestions about what else the user might like, who the user might be friends with, or things the user might enjoy purchasing. These algorithmic outputs are accepted as generally useful, and thus worth the occasional bad suggestion (like that Netflix suggestion that was unforgettably awful).

The problems with algorithmic audiences interacting with users become evident in the case of identity shifts. Where human audiences understand the nuance involved in an identity shift, and know how to respond in a socially conscious way to encourage the user, algorithmic audiences lack that human element of social consciousness. Popular press is full of accounts of when significant identity shifts, such as LGBT disclosure, relationship dissolution, or death, result in awkward algorithmic suggestions for the user to contend with.

Using Facebook as an example, suggestions might suddenly become uncomfortable (Facebook suggesting that you friend an ex-partner), triggering to the individual (Facebook showing you a post or page that its algorithms think you might like but instead is diametrically opposed to your interests) or just downright creepy (Facebook suggesting you friend a dead person). In worse case scenarios, algorithms can out users before the users themselves know [2, 3] or are comfortable disclosing [4]. The common aphorism, "Facebook knows," has a ring of truth to it, but what is far more concerning is that Facebook (and other algorithms) does not always know how to use what they know in a manner that is helpful and supportive to the user.

This shortcoming of current algorithmic design is significant – the recommendations that these algorithms generate have an impact on individuals, especially on individuals in the midst or on the cusp of a major identity shift. From this shortcoming springs a variety of research avenues, centered on designing more socially conscientious algorithms capable of

handling situations where "do as designed to do" might actually lead to negative outcomes for users.

Questions derived from the central concept of socially conscious algorithmic design include, but are not limited to:

1. Is there a way for algorithms to identify users who are undergoing identity shifts online?
2. How can we incorporate this classifier into algorithmic design to account for identity shifts over time?
3. In addition to the traditional measures of efficiency and applicability, how can we include measures of social consciousness?
4. Can including users in algorithmic design decisions help foster more socially conscious algorithms?
5. How can algorithms be used in times of identity shifts to encourage users without being awkward, triggering, or creepy?

The end goal is to create algorithms capable of acting more human-like when interacting with users, and particularly users who are undergoing identity shifts. Human-like algorithms, which are capable of looking at the contextual clues surrounding a user, understand what is occurring with that user's identity presentation and make decisions about what is or is not appropriate to respond with based on this understanding. The first step for creating more human-like algorithms is considering the questions outlined above. Otherwise, algorithms will continue to stick out in online audiences like sore thumbs, instead of acting as socially conscious, compassionate audience members when interacting with users going through identity shifts.

References
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