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MY ALGORITHM: USER PERCEPTIONS OF ALGORITHMIC RECOMMENDATIONS IN CULTURAL CONTEXTS

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Introduction

In the cultural industries, discovery and recommendation have traditionally been the tasks of professional insiders, gatekeepers and market information systems such as bestseller lists. Today, these individuals and systems are increasingly supplemented, enhanced and occasionally supplanted by automated services, as the *algorithms* of large online corporations offer targeted cultural guidance based on computations of input from reservoirs of user data.

Automated functions for discovery and recommendations are important features of all the major players in digital media and culture. Spotify, Amazon, and Netflix all make recommendations based on their respective users' listening, reading and viewing habits and expressed preferences. Certainly, the size of the databases of these services is so immense that algorithms perform important work, efficiently and on a much larger scale than any cultural critic could manage. Exactly how they do so is little known, at least outside of the respective companies. While previous studies have revealed aspects of the work of cultural algorithms (see for instance Hallinan & Striphas, 2014), for ordinary users they are, in effect, black boxed, i.e. closed for further scrutiny or understanding (Pasquale, 2015). As Latour (1999) has pointed out, the obfuscation or black-boxing may actually contribute to the success of the technology. In other words, automated recommendations have infused our media culture precisely *because* their inner workings do not get in the way of the presentation of outputs.¹

Thus, this paper sets out not to explore how algorithms work, but rather how users respond or relate to algorithmic recommendations, addressing the following research question:

How do users relate to online automated discovery and recommendation services for cultural products and services?

¹ I am grateful to an anonymous AoIR reviewer for pointing out this aspect of black-boxing.

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Background

The prominence of algorithms is increasingly recognized also in the academic literature, to the extent that a notion of “algorithmic culture” has been proposed (Striphas, 2015). Still, analyses of the workings of algorithms in the cultural industries are scarce.

Responding to the increased centrality of algorithms in aspects of private and public life, communication scholars, new media theorists and media philosophers have suggested that we take into account the pragmatic dimension of algorithms in order to assess their cultural, political and social impact (Ananny, 2016; Beer, 2016; Gillespie, 2014; Goffey, 2008; Kitchin, 2016). Aspects of the social dimensions include the ways in which users respond and relate to the automation of cultural discovery and recommendation.

It could be argued that algorithmic recommendations generally operate under a paradox: As users feed the services with more information on their likes and dislikes, algorithms can suggest more of the same kind that we seem to like, creating a cultural “filter bubble” (Pariser, 2011). However, cultural consumption is also about being genuinely surprised, encountering *serendipity* in cultural discoveries. In a related manner, algorithms may risk *apophenia*, perceiving patterns and connections where none actually exist (boyd & Crawford, 2012).

A different issue regards the notion of online privacy and how users feel about services that are increasingly familiar with their preferences, habits and relationships. Studies have found widespread concern among users over how businesses monitor them (Pew Research Center, 2014). Analysts of increasingly personalized advertising in online media have noted the so-called “creepiness factor” (Thierer, 2013), the sense that marketers are capitalizing on personal information without due consent or transparency. Similar affective responses are likely to be found in cultural contexts as well. That is not to forget that a presumptively large group will be unconcerned or ignorant of how algorithms provide recommendations.

When examining online responses to algorithmic recommendations, I find that users respond with evaluations of whether the service in question performs its task satisfactorily: The algorithm suggested this; I liked it (or not). However, in response to the above-mentioned concerns, users are also found to adopt more elaborate strategies, or responding in more nuanced ways: “Rearing” the algorithm to enhance their personalized feedback is one approach; “breaking” the algorithm by confusing its internal logic is another; others will avoid feeding the ‘big data’ machine altogether, or search incognito in some instances. Shifting and making comparisons between services constitute a separate set of ways of making sense of cultural algorithms. Some active users seem to take a personal interest in the recommendation algorithms, seeing them as part of their online identities. Accordingly, I find users referring to an automated system for targeted recommendations as “my algorithm”.

Methods and approaches

The paper starts out from an examination of the relevant literature and follows with an analysis of Twitter streams based on queries related to “algorithm” and “Spotify/Amazon/Netflix”. For this study, Twitter messages was found to be a productive platform to investigate, as users often rejoice about newfound favourites or vent their

frustrations with algorithm-based services there. Using the web-based Topsy software and the DiscoverText application I harvested tweets containing the above keywords for two periods: September–November 2015 (data set 1) and 9th – 31st August 2016 (data set 2). While the first data set led to the development of general categories, it was found to provide an insufficient amount of data points. Data set 2 is analyzed more in detail according to the criteria that was developed for the first data set. A general coding of the tweets is conducted, with select messages analyzed textually as well.

Twitter feeds are hardly representative of any larger population, but are rich sources of non-representative utterances on popular culture.

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