# Do authors get mentioned in Twitter? Investigating the mentioning behavior of Twitter users who share research objects.

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Scholarly communication has changed dramatically from 35 years ago as the advent of the internet and the web has brought about new channels for scholars to broadcast and receive research objects. The academic reward system is also changing as scholars are now asked to justify their research based on societal impact. Societal impact is a generic term that is difficult to define and even more difficult to accurately measure (Bornmann, 2013). Because of these issues and others, traditional bibliometric measures are being re-evaluated and new metrics are being introduced. One source of new metrics being used to measure the consumption and dissemination of research objects in online contexts is labeled under the umbrella term of altmetrics.

Altmetrics, or metrics derived from acts in online (primarily social media) contexts, attempt to measure events including mentions, downloads, views, shares, likes, and other types of acts that can be captured from specific online sources (Priem 2014). Online platforms currently being monitored by altmetric data providers include Twitter, Facebook, Reddit, Mendeley, LinkedIn, blog sites, news sites, and Wikipedia. It is difficult for researchers to evaluate these acts, however, because of the heterogeneity of the platforms being monitored, the vast sizes of the audience, and because of the heterogeneous limited information available and accessible through APIs and other resources. Altmetrics, at this point, are relatively new and the evaluations of the data are still mostly exploratory. As altmetric research has evolved, researchers have gone from simply investigating relationships between altmetric events and citations to exploring who the participants are and determining what factors influence the types of research objects being shared in these environments.

One issue of import that is underrepresented in the current research is why and how scholars use these online platforms and, if they do, how scholars build social capital and manage their impressions (Haustein, Bowman, & Costas, 2016). Altmetrics data providers typically offer scholars and organizations the ability to view how often their research objects have been seen, shared, liked, or downloaded by others, which is thought to potentially demonstrate how much of a societal impact a research object has made within a specific online platform. To date this view has been prevalent in the academic research, yet another perspective is possible:  to examine the ways in which scholars are using the online realm to make social connections and to manage the impressions others have of them. To this end, this study examines users of Twitter who have shared research objects and who have mentioned others while doing so in order to determine if these tweeters mention the authors of the research object in the tweet text, thus increasing their social capital and managing their online impression.

In Twitter, a tweet can include text (either 140 or 280 characters), hashtags, user mentions, URLs, symbols, media, and images. Of specific interest in this study is to examine the user mentions, which are designated by the '@' symbol in Twitter, to determine if users sharing research objects mention the authors of the research in the tweet text. If a tweet is found to mention the author, it is of further interest to determine if the tweeter follows the author on Twitter and/or if the author follows the tweeter. In addition, it is of interest to determine if the tweeter them self is an author of the research object. Other demographic information will be collected and analyzed where applicable and available, including gender of the tweeter and author(s) mentioned, university/organization affiliation of the tweeter and author(s) mentioned, subject of the research object shared, and academic status of the tweeter as determined by Costas, van Honk, and Franssen (2017)

This work will utilize the new Altmetric.com 2018 data dump, which was recently (Aug 3, 2018) released, to identify the number of tweets containing at least one user mention in the tweet text. Next, this work will utilize an expansive list of Twitter accounts belonging to scholars (as determined by Costas, van Honk, and Franssen (2017)) and determine both if the tweeter is a scholar and if any of the users mentioned in tweets containing research documents are scholars. In addition, the follower/followed information of the Twitter user will be examined to determine if the scholars mentioned in tweets are being followed by, or are following, the author of the tweet.

This work will shed light on how Twitter is being used to share research objects and identify whether or not the authors of the research objects being shared are being mentioned in the tweets. In addition, by examining the following/follower information on Twitter, it will be possible to identify whether or not the authors of the research objects being mentioned are followed by, or are following, the author of the tweet. This will be one of the first studies to utilize the new 2018 Altmetric.com data dump and one of the first to examine whether or not the authors of research objects being shared are being mentioned, or acknowledged, in the tweet text. Finally, the results will be framed using the notions of impression management and social capital to further shed light on altmetric research results and the changing landscape of scholarly communication.

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