The positive effect of interdisciplinarity on altmetrics for humanities-related research outputs

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Drawing from a project using arts and humanities data archived in the figshare repository, this presentation will examine the current literature and debut initial findings related to the role of disciplinarity on usage statistics and Altmetric scores. The idea of prediction based on discipline is a compelling one, especially as altmetrics practitioners and librarians work to engage researchers in disciplines under-served by traditional, citation-based indicators of impact (namely those in the humanities). Altmetrics15 workshop attendees are invited to consider the implications of disciplinarity on social media attention and the difference between “what works”/best practices and prediction in altmetrics outreach.

OBJECTIVES

Attention metrics (page views, downloads, and Altmetric scores) are compared for humanities-related outputs archived in figshare to determine trends in disciplinarity for those outputs. It is assumed that outputs that are interdisciplinary in nature (that is, those that are assigned more than one category upon deposit to figshare) will have higher attention metrics than those outputs assigned to only one category.

METHODS

Our study examines Altmetric- and figshare-sourced metrics (Altmetric scores and figshare page views and downloads) for humanities-related research outputs deposited to figshare (n=5,564). Figshare archives a wide range of content from the humanities and allows for analysis across 9 unique document types (papers, figures, posters, data, presentations, code, theses, media, fileset), publication dates (January 2012 to July 14, 2015 for this study), and disciplines (20 humanities categories). Because all outputs archived on figshare receive a unique DOI, it is easier to track these outputs’ use across the Web (including on Twitter, Facebook, research blogs, Mendeley, in the mainstream media, and so on) and thus to track the altmetrics for each.

Outputs archived on figshare can be assigned more than one category, making it difficult to accurately compare the characteristics of attention received by such outputs across categories. With this limitation in mind, we created individual codes for a majority of the dataset that used only one category (approximately 90%) and a new code for any outputs assigned more than one figshare category. The researchers then sourced Altmetric scores from Altmetric Explorer using the figshare DOIs. Once coded, categories and their related metrics were analyzed in SPSS.
RESULTS

The distribution of categories across 5,564 figshare humanities-related documents (http://dx.doi.org/10.6084/m9.figshare.1529344) shows 6,768 uses of the 20 individual figshare categories by the documents in the dataset. Additional analysis shows that 4,947 (88.9%) used only one discipline category while the remaining documents used 2 or more. Ten documents were assigned 10 or more categories. Overall, the initial dataset had over 200 unique configurations of the 20 humanities-related category codes.

Our second stage of analysis shows that for outputs assigned more than one humanities-related category, the output’s associated attention metrics are higher. This data is summarized by examining the attention received by humanities-related output, by number of categories assigned (http://dx.doi.org/10.6084/m9.figshare.1529346).

Altmetric scores, downloads, and page views by number of categories assigned to humanities-related outputs (http://dx.doi.org/10.6084/m9.figshare.1529345), provides another view.

Documents with three or more categories assigned to them are associated with higher than average Altmetric score percentiles, figshare downloads, and figshare page views. It is possible that increased use of category tagging results in increased discoverability on the Web which, in turn, may influence secondary attention outputs receive on social media.

QUESTIONS FOR DISCUSSION

While the initial findings presented above are based on a limited data scope, Altmetrics15 workshop attendees might consider the following questions for discussion:

- Does the current altmetrics literature properly deal with disciplinarity?
- If we know that documents in a specific discipline garner a certain baseline amount of attention, can we predict possible social media visibility for documents that combine disciplines?
- How can researchers use these findings to ensure that their research gains the optimal amount of attention online while steering clear of any practices that might be considered “gaming”?