Using altmetrics and citation counts to assess the social and academic impact of Médecins Sans Frontières publications

1. Introduction

Scholarly publications of Médecins Sans Frontières/Doctors Without Borders (MSF) influence many domains, including policy, clinical practice, and humanitarian advocacy. It is useful for the organisation to find ways to maximise the reach of its publications.

Social and academic impacts of MSF articles can be examined using article level metrics, including altmetrics and citation counts.

- Altmetrics indicate the quantity and quality of online attention in multiple channels, including social media, blog posts, and news coverage.

2. Methods

An analysis was performed on 155 articles from the MSF Field Research repository (http://fieldresearch.msf.org/msf) that had been published between July 2011 and December 2012.

Articles were categorised as “Res” (research) or as “Other” (editorials, perspectives, reviews, etc.). Articles were grouped by time (July-December 2011; January-December 2012).

For each article category, we collected the mean:

- Altmetric score (score of online attention [1])
- Number of tweeters
- Number of Web of Science (WoS) citations

In addition, the number of articles mentioned and cited at least once in each year/category were counted. Summaries of each metric as captured on 6 March 2013, are presented. Data shown are means ± SD or percentages, as appropriate.

3. Results

- Non-research articles had a higher average score of online attention than research articles.
- Non-research articles were tweeted by a higher average number of people than research articles.
- More than 50% of MSF articles from 2012 have been mentioned at least once, but few have been cited.

4. Key Observations & Conclusions

- Online attention tends to be low across all article types for MSF publications; nearly all of the attention comes from Twitter.
- Non-research articles tend to be tweeted by a higher number of people than research articles.
- The number of articles mentioned online at least once increased in 2012 but was still only just over 50%.
- Citations are slower to accrue, reaching 60% for 2011 research articles but only around 20% for 2012 equivalents.

Based on our data, we believe that MSF can enhance the online and social impact of its research outputs by promoting articles within a greater diversity of communication channels, including but not limited to Twitter, Facebook, news outlets, and blogs. One potential MSF-led initiative could be the creation of a blog that specifically reports on the research papers that are born out of MSF fieldwork.

In contrast to citations, altmetrics may act as rapid indicators of research uptake within society. Therefore, monitoring altmetrics can potentially help to improve and expand the online impact of MSF’s publications.

Limitations

- Only one method of Altmetric analysis was used. Other approaches may yield different results.
- It was not possible to control for the time variable. However, the lag in citations can be seen clearly, and altmetrics data do not usually increase substantially over time.
- Citations and online interest are proxies for impact. Further work is necessary to establish how online attention correlates with influence on programmes and policies.

Disclosure Statement:
Jean Liu is data curator and blog editor at Altmetric (www.altmetric.com). Euan Adie is the fighshare.684926

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Table 1. Percentages of MSF articles in 2011 and 2012 that have been mentioned at least once and cited at least once.

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<tr>
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<th>Jul-Dec 2011</th>
<th>Jan-Dec 2012</th>
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<tr>
<td>Mentioned at least once</td>
<td>37.5%</td>
<td>40.7%</td>
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<tr>
<td>Cited at least once</td>
<td>60.0%</td>
<td>55.6%</td>
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Please see supplementary information on fighshare for more details about the data and methods [2].