

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

2019

ALTMETRIC FOR THE SPREAD OF TRUE AND FALSE NEWS ONLINE - A STUDY OF USING ALTMETRIC IT TOOL

Stephen G

NIELIT - Itanagar Centre, Arunachal Pradesh., stephenlisp@gmail.com

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Library and Information Science Commons](#)

G, Stephen, "ALTMETRIC FOR THE SPREAD OF TRUE AND FALSE NEWS ONLINE - A STUDY OF USING ALTMETRIC IT TOOL" (2019). *Library Philosophy and Practice (e-journal)*. 2910.

<https://digitalcommons.unl.edu/libphilprac/2910>

ALTMETRIC FOR THE SPREAD OF TRUE AND FALSE NEWS ONLINE - A STUDY OF USING ALTMETRIC IT TOOL

Dr.G.Stephen,
Assistant Librarian,
NIELIT – Itanagar Centre,
Arunachal Pradesh, India.
stephenlisp@gmail.com

Abstract

Altmetric metric and qualitative data are complementary to traditional, citation-based metrics. Altmetric Attention Score for a Research Output provides an indicator of the amount of attention. Score is taken from an automated algorithm, and represents a weighted count of the amount of meditation taken for a research output. This research output is an Altmetric attribution score of 9147 for the article The Spread of True and Fall News Online. Altmetric has tracked 12,623,901 research outputs in all sources till date 11th, 2019. Altmetric has tracked 7,171,211 research outputs in all the sources so far, out of which this article got # 4 places. By age, we can compare this Altmetric Attention Score with 273,408 tracked outcasts which were published within six weeks on both sides of this one in any source. This article got # 1 place. This research was published to 1,016 others from the same source and within six weeks on both sides of this one. This article got the first place.

Keywords: *Altmetrics, Twitter mentions, News Outlets, Mendeley Readers, True and false news, Online, Attention score*

Introduction

In the digital age, anyone can now track the life of each individual paper and understand better how it is read and how it is used. This allows us to measure different types of effects beyond the citation. Altmetrics are essentially meditation metrics, try to measure the amount of attention and public interaction driven by a given article. Altmetrics looks at different types of inputs, depending on who is measuring and how they chose to weigh each input relative to each other (and these complex weightlifting formulas are not usually disclosed) . Specific input includes activity on social networks and social bookmarking sites, mainstream media and blog coverage, and has anyone left any comment on the article. What is most of these is that they are measurements of meditation, not quality measurements. This is an important warning - Altmetrics is an additional, replacement for other types of impact matrix is not. There is no clear relation between the attention given on an article and its quality or effect. Keeping this in mind, some very valuable objects can learn from meditation matrix.

Altmetric and its use

A single research output can remain online in many websites and can be talked about dozens of different platforms. In altmetric, we work behind the curtains, collecting and gathering this complete information together so that you can provide an engaging and informative view of the same vision about online activity with your scholarly material.

For publishers: Altmetric can provide valuable insight into data publishers, editorial teams, writers and readers, how their published content is being used and shared worldwide.

For institutions: Understanding the focus of your institution's research and explaining, areas of strength or the identification of people who need improvement, which means that to realize long-term objectives Can be better support.

For researchers: Knowing who is talking about your research and what they are saying is important in today's rapidly growing online world. To ensure that your work is properly represented and interpreted, as well as getting the right people at the right time, all the important factors play a broader impact.

For Funders: Altmetric Data provides a unique record of how funded research is received and transmitted. Detailed visualization summaries are presented within the forum, where research has influenced various viewers on social media around the world in mainstream news and public policy. Our intuitive platforms can be used to track specific grants or outputs of projects, and to identify emerging areas and scholars.

For Research and Development: Your principal stakeholders (from customers to investors to patients) are affiliated with journal articles, clinical tests, data, posters and corporate and research institutions with globally presentations. Altmetric tracks online shares and commentary to provide critical, real-time, research not only about research done by you but others also relevant to your business.

Altmetrics are very dependent on social media, it may sketch itself towards research on social media (for example, people interested in Twitter, often using Twitter to talk about Twitter about research). In addition, social media coverage of an article can tell us more about how much a researcher is known and how much interest he has in research rather than the network. A researcher with 10 000 Twitter followers is likely to get a high Altmetric score compared to a researcher who is not on Twitter at all. For a research institution, knowing which projects are catching public eye, can prove useful in fundraising efforts. Librarians can track the ongoing conversation in different areas and perhaps meet the anticipated guardian needs for different types of resources. Journal editors can use Altmetrics as a fast indicator for which articles are interested for viewers. But with most metrics, there are some flaws that anyone should know when using Altmetrics. As mentioned above, popularity is not equal to quality. Articles of interest in the research community (for example, self-study literature studies) perform better than

articles centered on a specific field. Sensational articles on fad diets or weird and weird subjects often attract more attention than serious research.

Altmetrics is no different than any other type of metric. Matrix has real value, but they cannot give us full answers. They can provide us valuable shortcuts to reach that point where we can start relying on expertise and personal decision.

Review of Literature

Stephen (2017) found out about the evidence due to the Altmetric-Review about Zika virus and birth defects article. Results of Altmetric Meditation on 2nd February 2017 are 3804. This article covers 1319 tweeter, 330 in new outlets and 144 in Facebook and 560 Mendeley readers of this research output. Most of the respondents fall into the unknown category, 43% (539) Tweets, followed by 25% (336%) of USA twitter and only 1% of twitter from Chile and Colombia. According to the discipline, the statistics of Mendeli readers show that most readers are depleting medical and dental discipline, followed by 21% of agricultural and biological sciences, third place 20% to other types of readers, 7% Genetics and molecular biology discipline, 6 are received. % Pathak is immunology and microbiology and only 5% of Mendeley readers are nursing and health professionals.)

Stephen (2017) examined the article level metrics for the Association of Hormonal Contraception published in JAMA Psychiatric. In this article, 193 news outlets, 21 blogs, 96 Facebook pages, 951 tweets, the majority of Mendeley readers (41%) have been mentioned which are dropped to the drug and dental discipline and Altmetric has so far produced 7,615,965 products from all sources Tracked. The article got # 120 locations.

An attractive possibility of measuring the social effect is seen in UltimateTitrix (less for alternative matrix) (Mohamedi and Thawl, 2014). There are already many studies related to allmatrix. An overview of these studies can be found in Barllan, Shema, and Thelwall (2014), Haustein (2014), and Priem (2014). Many of these studies have measured the relation between quotes and altmetrics. Since the correlations were often at a moderate level, it is difficult to interpret the results: both metrics look identical but not identical. The published study so far has not been able to satisfactorily answer whether a symmetric measurement is suitable for measuring social impact. This question is the reason for this inquiry.

Altmetrics opens the door for more diverse variations of the concept of impact interpretation and impact analysis ("Voltmans and Costas, 2014." Prim and Heminger (2010). Overview of various altmetrics can be obtained from Primim and Costello (2010)). Twitter defines Tweets as quotes if they have a direct or indirect link to a colleague-reviewed scholar's article. These twitter quotations can be counted and evaluated as an optional metric for papers. Compared to quotes) that provide potentially relevant information on the impact of scientific

output (for example, the number of any publication has been tweeted, shared on Facebook, or read in Mendelie). Twitter (www.twitter.com), for example,. The best known micro-blogging app This application allows the user to post a short message (tweets) of up to 140 characters. "These tweets can be categorized, can be shared, can be sent directly to other users, and can be linked to the website o Scientific papers ... There are currently more than 200 million active Twitter users who are per day Tweet more than 400 million "(Darling, Schiffman, Quote, and Drew, 2013).

About Article - Tthe spread of True and False News Online

Title	The spread of true and false news online
Published in	Science, March 2018
Subject Area	Information & Computer Sciences
Affiliations	Massachusetts Institute of Technology
DOI	10.1126/science.aap9559
Pubmed ID	29590045
Authors	Soroush Vosoughi, Deb Roy, Sinan Aral
Abstract	We investigated the differential diffusion of all of the verified true and false news stories distributed on Twitter from 2006 to 2017. The data comprise ~126,000 stories tweeted by ~3 million people more than 4.5 million times. We classified news as true or false using information from six independent fact-checking organizations that exhibited 95 to 98% agreement on the classifications. Falsehood diffused significantly farther, faster, deeper, and more broadly than the truth in all categories of information, and the effects were more pronounced for false political news than for false news about terrorism, natural disasters, science, urban legends, or financial information. We found that false news was more novel than true news, which suggests that people were more likely to share novel information. Whereas false stories inspired fear, disgust, and surprise in replies, true stories inspired anticipation, sadness, joy, and trust. Contrary to conventional wisdom, robots accelerated the spread of true and false news at the same rate, implying that false news spreads more than the truth because humans, not robots, are more likely to spread it.

Objectives

- ✚ To find out the Altmetric Attention score for articles of spreading truth and false news online.
- ✚ Identifying Altmetric Attention Score in context for the spread of online correct and false news.
- ✚ To detect online demo and demographic breakdown of real news.
- ✚ To analyze the majority of Twitter demographic types mentioned in this article.
- ✚ To discover the Mendeley statistics mentioned this Article.
- ✚ To identify professional status of Mendeley readers mentioned this article.
- ✚ To know the various social media mentioned this research article.

Methodology

The article-level metric (Altmetric) is a measure of the effect and effect of an article in the world of research. The data collected from mainstream and social media is used to determine how and how much the research article is attracting the attention of a colleague. Researchers set up the Altmetric Free Bookmark in Chrome to see online share and mention of an article spreading right and wrong news online with one click. Researchers search for interesting online production of false and false news, meanwhile, in this article, this article has been found in science magazines. After receiving the Altmetric page, the researcher tabulated and interpreted to complete the research.

Data Analysis and Interpretation

a). Altmetric Attention score

Altmetric focus score is automatically calculated, weighted algorithm. It is based on three main factors. First, the volume of Mention (how many were?), The source of the second mention (where they were high profile new stories, re-tweeted, or perhaps a Wikipedia reference?), The author of the third mention (whether this magazine was) publisher, or an influential Academic?). Combined, the score represents a weighted estimate of all types of meditation altmetric was raised for the production of research, rather than a raw total of the number of mentions.

This article has been mentioned in 346 news outlets, 58 blogs, 2 policy sources, 50 Facebook pages, 7511 tweets, 2 Wikipedia pages, 20 Google + Pages and 14 Redditors posts, 2Videos uploads (True and false news spread online). However, the score is 9147. (The default value of each mention is News outlet-8, Blog-6, Policy source- 3, Facebook page- 0.25, Tweets - 1, Wikipedia page-3, Google + Page -1, Redditors post-0.25, video upload -0.25, Q & A Thread Page-0.25).

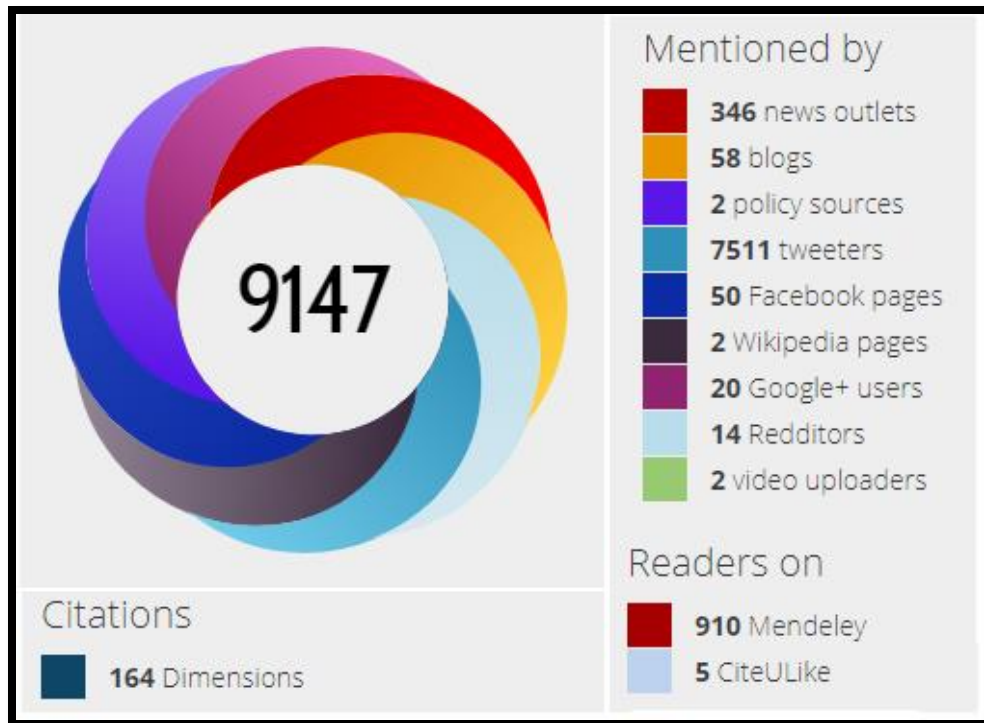


Figure 1 : Attention Score

This research output has an Altmetric Attention Score of 9147. This is a high-level measurement of the quality and quantity of online attention received by us. This noticeable score, as well as the ranking and number of the research output shown below, was calculated when research production was last mentioned on March 11, 2019. Altmetric has tracked 12,623,901 research output in all the sources so far. Compared to these, it has done particularly well and is in the 99th percentile: it is in the top 5% of all research output tracked by Altmetric.

b). Twitter Geographical breakdown

Altmetric categorizes users based on their posting history and profile information from Twitter. Where Twitter data is available for an article, the calculations for each user category and geolocation data are included in the Demographics tab of the details page. The data shown below was collected from 7,511 tweeter profiles that shared this research output.

Geographical breakdown

A geographic map of the tweeter, Altmetric Geolocation to generate users based on the information in their profiles on twitter. The Geo Key is a straightforward breakdown that comes from users who share an article in the world. The vast majority of the mentioned Twitter comes under the Unknown category 39% (2919) twitter, followed by 20% (1532) percent of USA twitter and only 1% of the twitter from Australia, Germany and Finland.

S.N	Country	Count	As %
1	United States	1532	20%
2	Canada	364	5%
3	Japan	330	4%
4	United Kingdom	320	4%
5	Spain	293	4%
6	France	165	2%
7	Australia	110	1%
8	Germany	96	1%
9	Finland	95	1%
10	Other	1287	17%
11	Unknown	2919	39%

Table 1: Twitter Geographical Breakdown

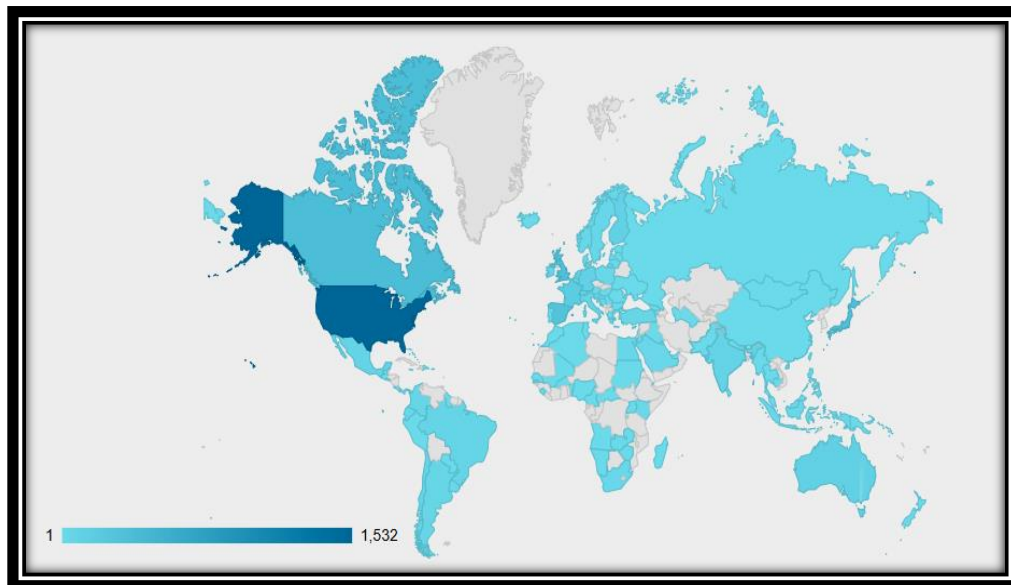


Figure 2: Twitter Geographical Breakdown

Twitter Demographic breakdown

In order to compile a table of Twitter demographics, Altmetric profile looks at keywords in detail, the types of journals linking users and followers lists for assigning each profile in one category: a member of the public - the person who is a scholar Does not link to literature and otherwise it is not fit to follow any categories. Researcher - Anyone familiar with the literature. Businessman - A doctor or researcher who is working in clinical science. Science Communicator - People who are often associated with various types of scientific articles from different journals / publishers.

S.N	Type	Count	As %
1	Members of the public	5975	80%
2	Scientists	999	13%
3	Science communicators (journalists, bloggers, editors)	344	5%
4	Practitioners (doctors, other healthcare professionals)	193	3%

Table 2: Twitter Demographic breakdown

About 80% (5975) public members belong to the majority of twitter's Twitter demographic category, 13% (999) Tweets are scientific afterwards, 5% (344) twitter science communicators (journalists, bloggers, editors) and Only 3% (193) twitter practitioners (such as doctors and other health care professionals)

c). Mendeley readers by professional status

Mendeley is a global research collaboration forum and academic database. Mendeley's desktops, mobile and web apps help people organize, share and discover new research. Since its launch in 2009, Mendeley has become more than three million users worldwide. The online reference manager is the Altmetric sole Altmetric provider to display such detailed information about the spread of articles among readers, and users will also be able to click on an article to record articles on the Mendeley site from the Altmetric Details page.

S.N	Readers by professional status	Count	As %
1	Student > Bachelor	3	<1%
2	Unspecified	2	<1%
3	Student > Master	1	<1%
4	Librarian	1	<1%
5	Student > Ph. D. Student	1	<1%
6	Other	0	0%
7	Unknown	902	99%

Table 3: Mendeley readers by professional status

Regarding the demographic of Mendeley readers by professional status, most of the readers fall under the unknown professional status (99%), after research, the business status of all other class readers is less than 1%.

Mendeley readers by discipline wise

According to discipline Mendeley reader's figures show that most readers are leaving unknown discipline, followed by unspecified, social science, computer science, psychology, decision science and others.

S.N	Readers by discipline	Count	As %
1	Unspecified	2	<1%
2	Social Sciences	2	<1%
3	Computer Science	1	<1%
4	Psychology	1	<1%
5	Decision Sciences	1	<1%
6	Other	1	<1%
7	Unknown	902	99%

Table 4: Mendeley readers by discipline wise

d). Research output Tracks for Altmetric attention scores

Altmetric has tracked 7,171,211 research outputs from all sources, out of which this article got # 4 locations. Compared to these, it has done particularly well and is in the 99th percentile: it is in the top 5% of all research output tracked by Altmetric. So far Altmetric has tracked 59,396 research outputs from this source of science, has achieved second place in this article. It's a particularly good, scoring more than 99% of your colleagues. Older research outputs will score higher because they have more time to submit the report.

By age, we can compare this Altmetric Attention Score with 273,408 tracked outcasts which were published within six weeks on both sides of this one in any source. This article got # 1 place. It has done particularly well, scoring more than 99% of its contemporaries.

Altmetric can compare this research output to 1,016 other people and is published within six weeks from the same source. This article got the first place. It has done particularly well, scoring more than 99% of its contemporaries.

S.N	Research Output Tracks	Total Output	Position
1	All research Outputs	12,623,901	#4
2	Outputs from science	59,396	#1
3	Outputs of similar age	273,408	#1
4	Outputs of similar age from science	1,016	#1

Table 5: Research output Tracks for Altmetric attention scores

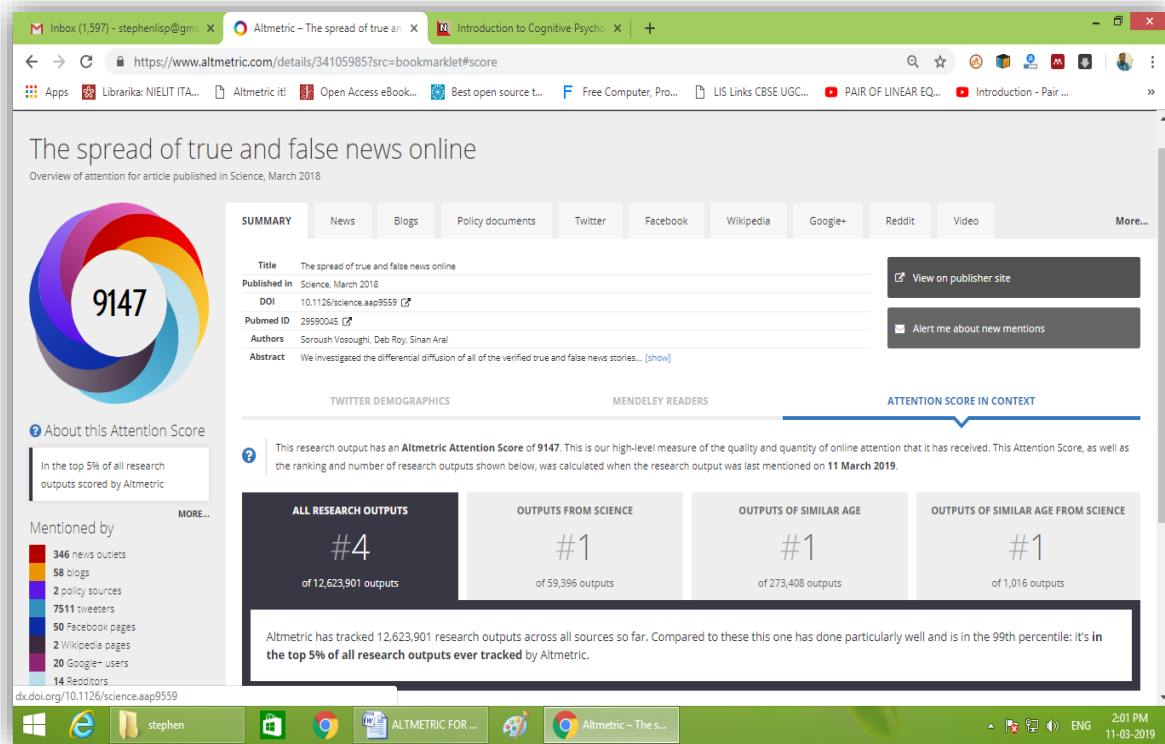


Figure 3: Screenshot of Altmetric It Output view on 11/03/2019

Findings conclusion

This article (The Spread of True and Fall News Online) has been mentioned in 346 news outlets, 58 blogs, 2 policy sources, 50 Facebook pages, 7511 tweets, 2 Wikipedia pages, 20 Google + Pages and 14 Redditors posts, 2Videos uploads (True and false news spread online). However, the score is 9147 on March 11, 2019. The majority of the mentioned Twitter accounts for 39% (2919) Tweets in the unknown category, followed by 20% (1532) percent of USA twitters and only 1% of the twitters from Australia, Germany and Finland. About 80% (5975) public members belong to the majority of Twitter's among Twitter Demographic category, 13% (999) Tweets are from the scientists, 5% (344) twitter science communicators (journalists, bloggers, editors) and There are only 3% (193) twitter practitioners (such as doctors and other health care professionals). Mendeley readers, from professional status, most of the readers fall under unknown professional status (99%) All other categories of readers with the research, professionals are 1% of low status.

Researchers want to focus on Altmetric measures, not the quality of the article. People pay attention to all kinds of reasons on this paper, not all positive ones. Altmetric only attracts the public's attention. This article has been discussed in personal forums, journal clubs, offline and by email, but Altmetric cannot track it. Altmetric tracks direct attention, which tells to focus on a specific research paper or dataset. Especially for a newspaper article or blog post etc. To be

counted by Altmetric, it should be a hyperlink or a formal quote of scholars' work. Altmetric provides everyone with a metric per output, so that all can quickly compare the relative levels of meditation, but it means to use it when comparing it only within a discipline. The criteria to focus on different scientific disciplines are in the same way, as are the criteria for quotes.

Reference

Mohammadi, E., & Thelwall, M. (2014). Mendeley readership altmetrics for the social sciences and humanities: Research evaluation and knowledge flows. *Journal of the Association for Information Science and Technology*, n/a-n/a. doi: 10.1002/asi.23071.

Waltman, L., & Costas, R. (2014). F1000 Recommendations as a Potential New Data Source for Research Evaluation: A Comparison With Citations. *Journal of the Association for Information Science and Technology*, 65(3), 433-445. doi: 10.1002/asi.23040.

Priem, J., & Costello, K. L. (2010). How and why scholars cite on Twitter. *Proceedings of the American Society for Information Science and Technology*, 47(1), 1-4. doi: 10.1002/meet.14504701201.

Priem, J., & Hemminger, B. M. (2010). Scientometrics 2.0: toward new metrics of scholarly impact on the social Web. *First Monday*, 15(7).

Priem, J., Taraborelli, D., Groth, P., & Neylon, C. (2010). Altmetrics: a manifesto. Retrieved from <http://altmetrics.org/manifesto/> Rodgers,

E. P., & Barbrow, S. (2013). A look at altmetrics and its growing significance to research libraries. Ann Arbor, MI, USA: The University of Michigan University Library.

Gunther Eysenbach et al.(2008), Published using Mendeley: The reference software for researchers, *Journal of Medical Internet Research*, 10(3),p22.

Heidi G. Allen et al (2013), Social Media Release Increases Dissemination of Original Articles in the Clinical Pain Sciences *PLoS ONE Journal* ,8(7). Pages: e68914.

Euan Adie, William Roe et al (2013), Altmetric: enriching scholarly content with article-level discussion and metrics *Learned Publishing*, Published using Mendeley: The library management tool for researchers, 26(1). Pages: 11-17.

Roberta Kwok et al (2013),Altmetrics make their mark *Published using Mendeley: The digital library for researchers*, *Nature*, 491-493.

Stephen.G (2017). Altmetrics for Zika Virus and Birth Defects – Reviewing the Evidence for Causality. *Journal of Advances in Library and Information Science*, 6(1), 63-68.

Stephen.G (2017). Altmetric for Association of Hormonal Contraception with Depression. *International Journal of Next Generation Library and Technologies*,3(2), 1-15.

Altmetrics. (2019, March 16). Retrieved from <https://en.wikipedia.org/wiki/Altmetrics>

Altmetrics. (2019, March 16). Retrieved from <https://help.altmetric.com/support/solutions/articles/6000060969-how-is-the-altmetric-attention-score-calculated>

Altmetrics. (2019, March 16). Retrieved from <https://www.altmetric.com/blog/scoreanddonut/>

Altmetrics. (2019, March 16). Retrieved from <https://academic.oup.com/eurheartj/article/38/35/2647/4157486>