

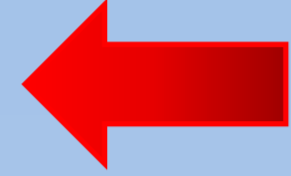
Citations Counts and Altmetrics of Highly Cited Papers of the Croatian Authors

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The main aim

of this study was to examine whether citation counts of highly cited papers, both NON-OA and OA, published by authors affiliated in Croatian scientific institutions correlated with Twitter mentions and Mendeley readers.

NON-OA articles

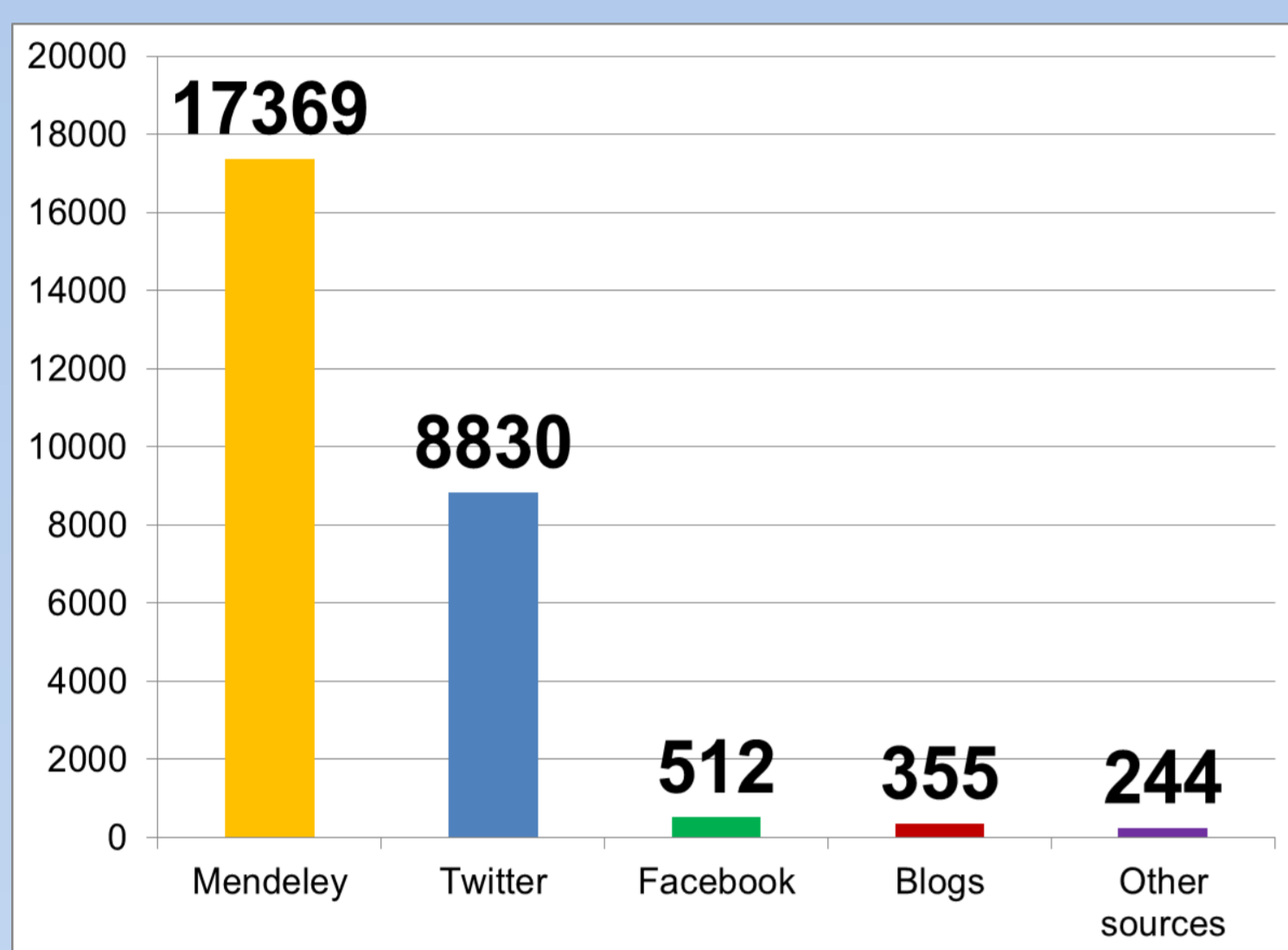
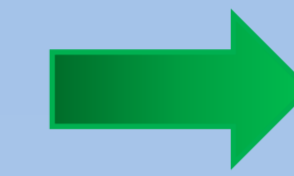


Results

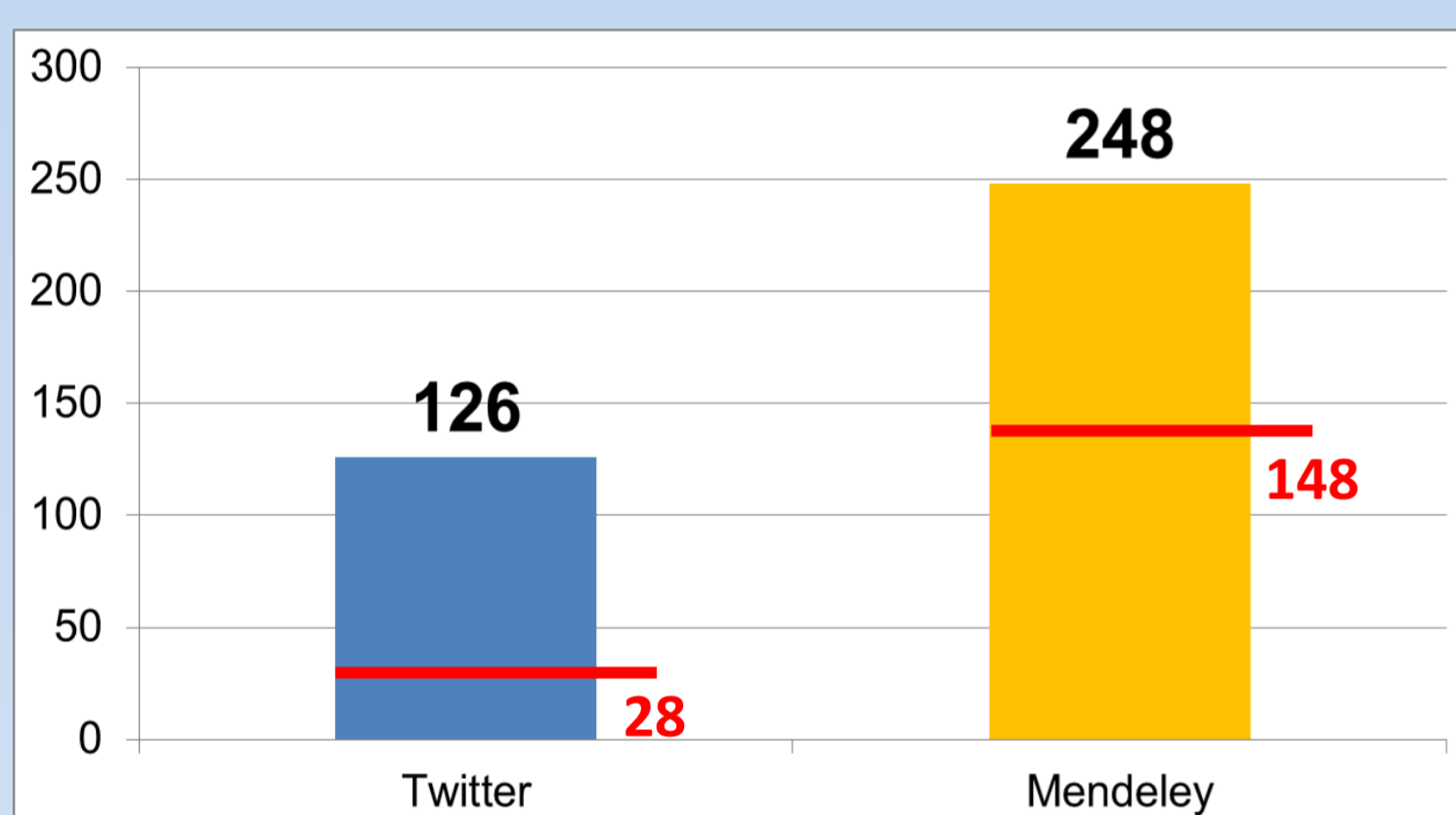
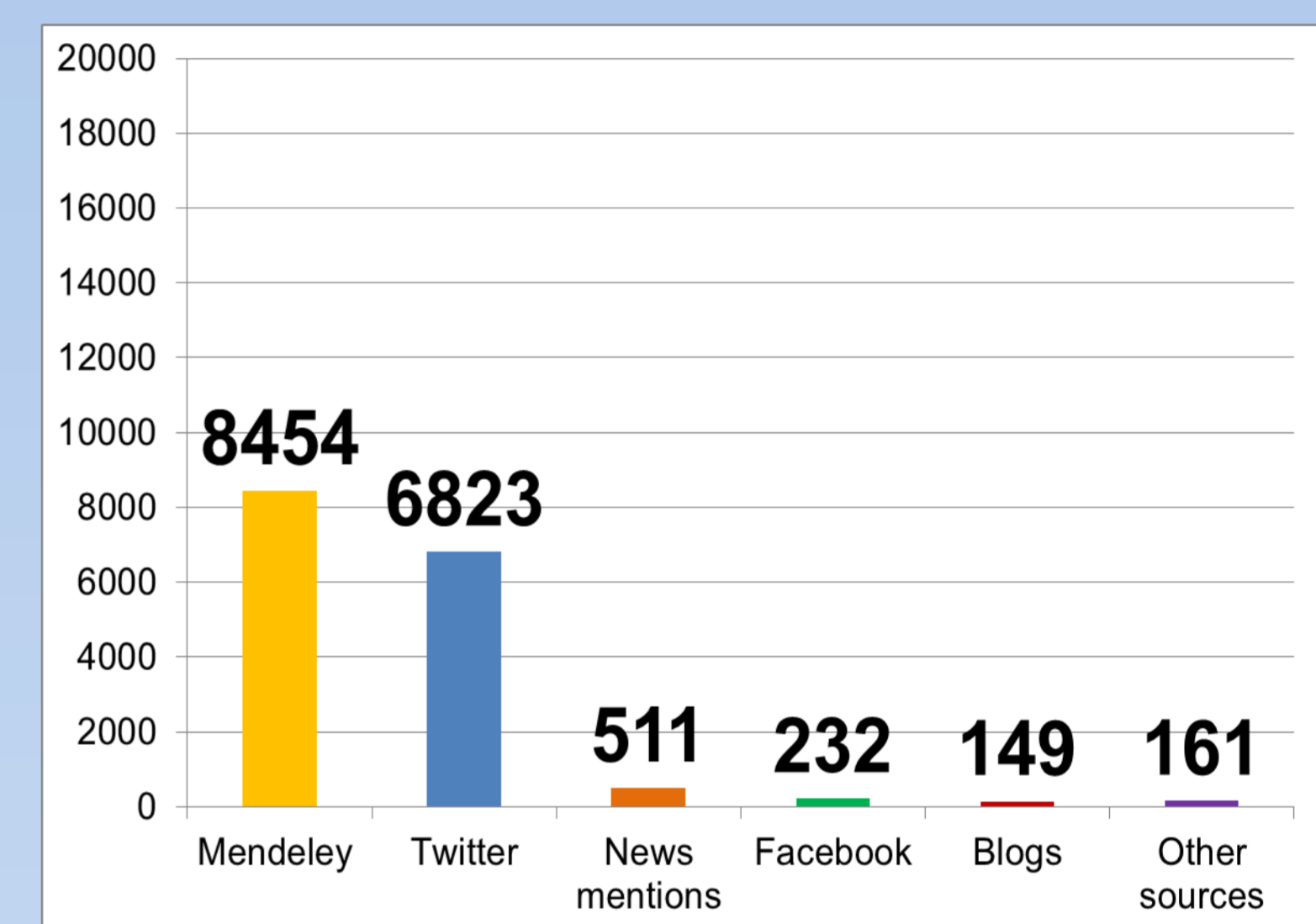
1. NON-OA articles collected 16,751 citations and 28,236 altmetric indicators.

OA articles collected 9,725 citations and 16,330 altmetric indicators.

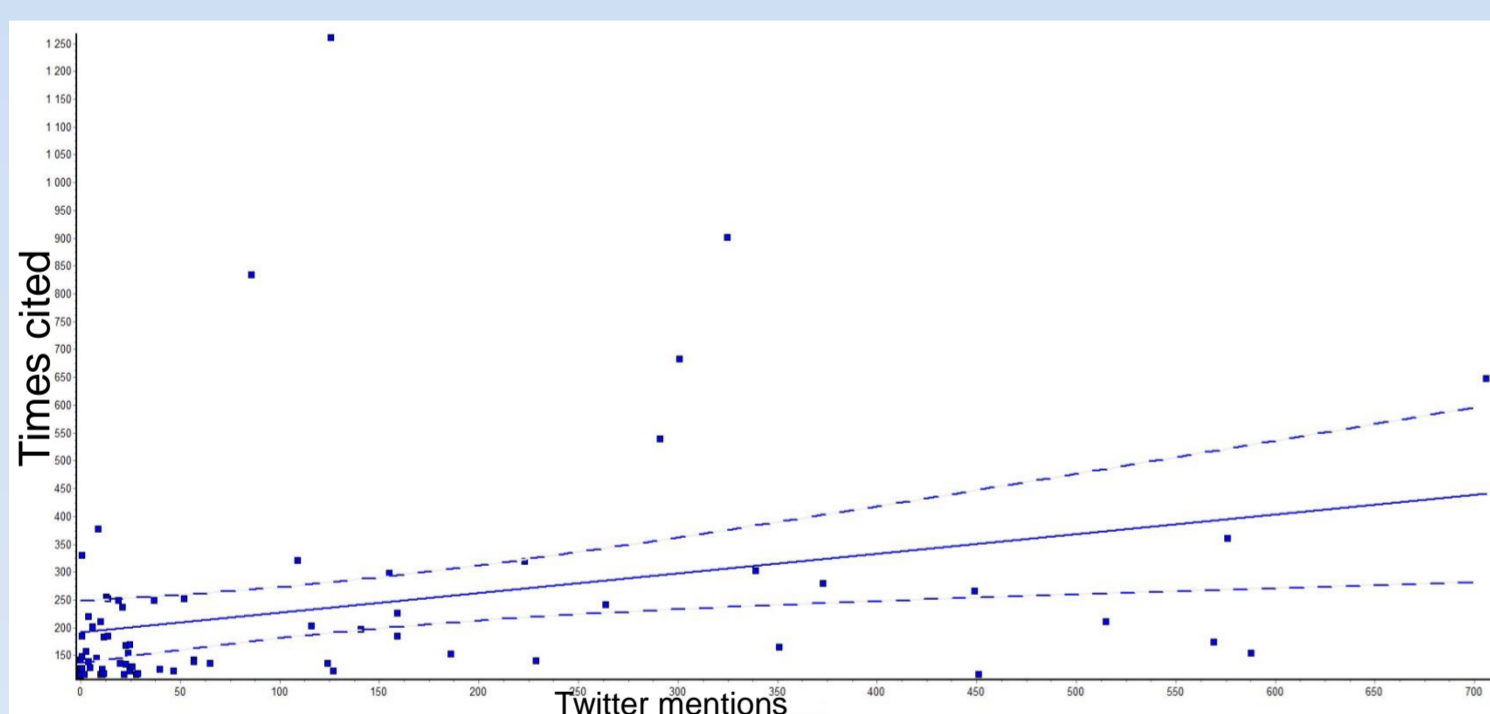
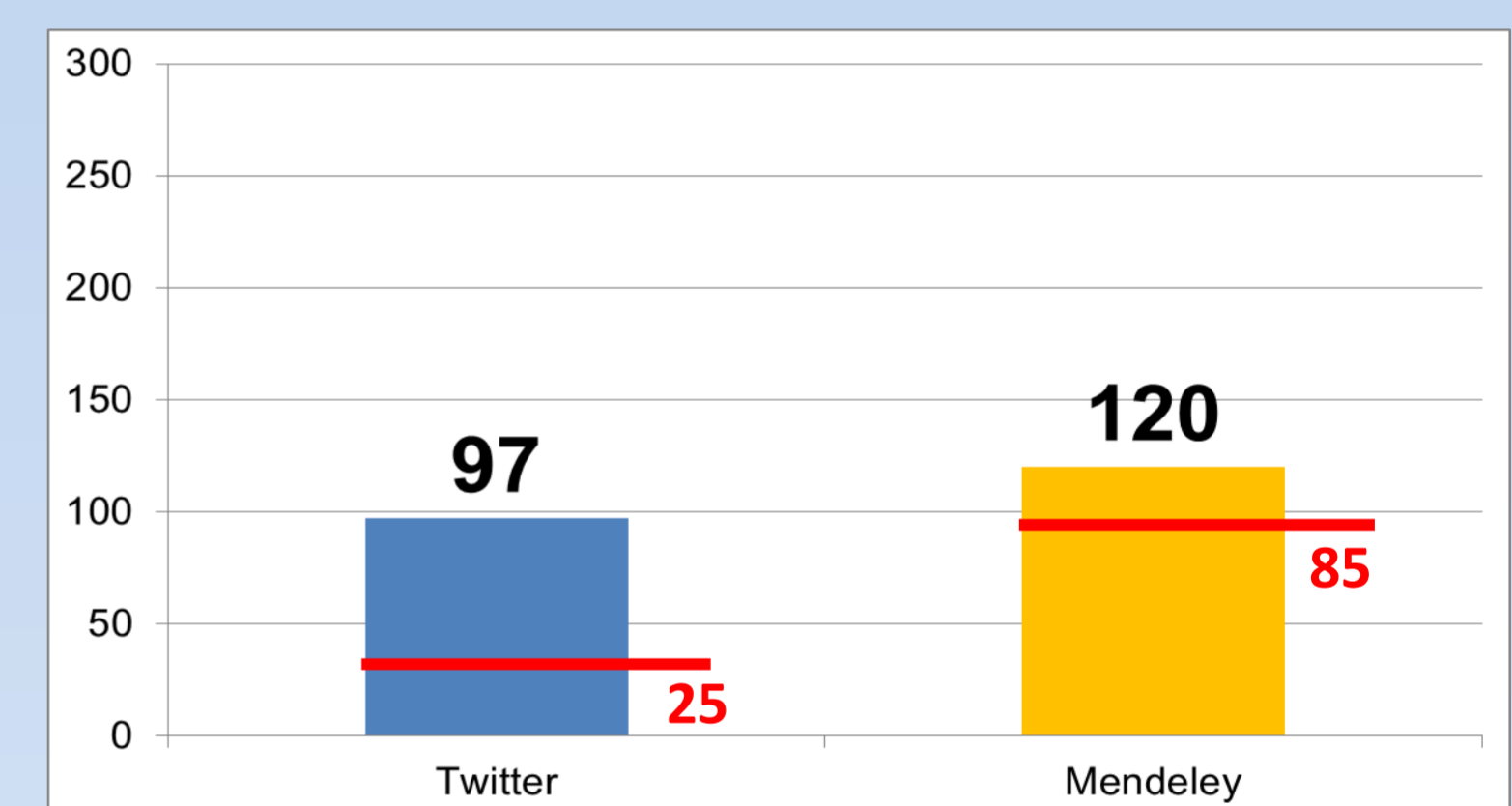
OA articles



2. The highest number of altmetric indicators was provided by Mendeley and Twitter in both NON-OA and OA articles.

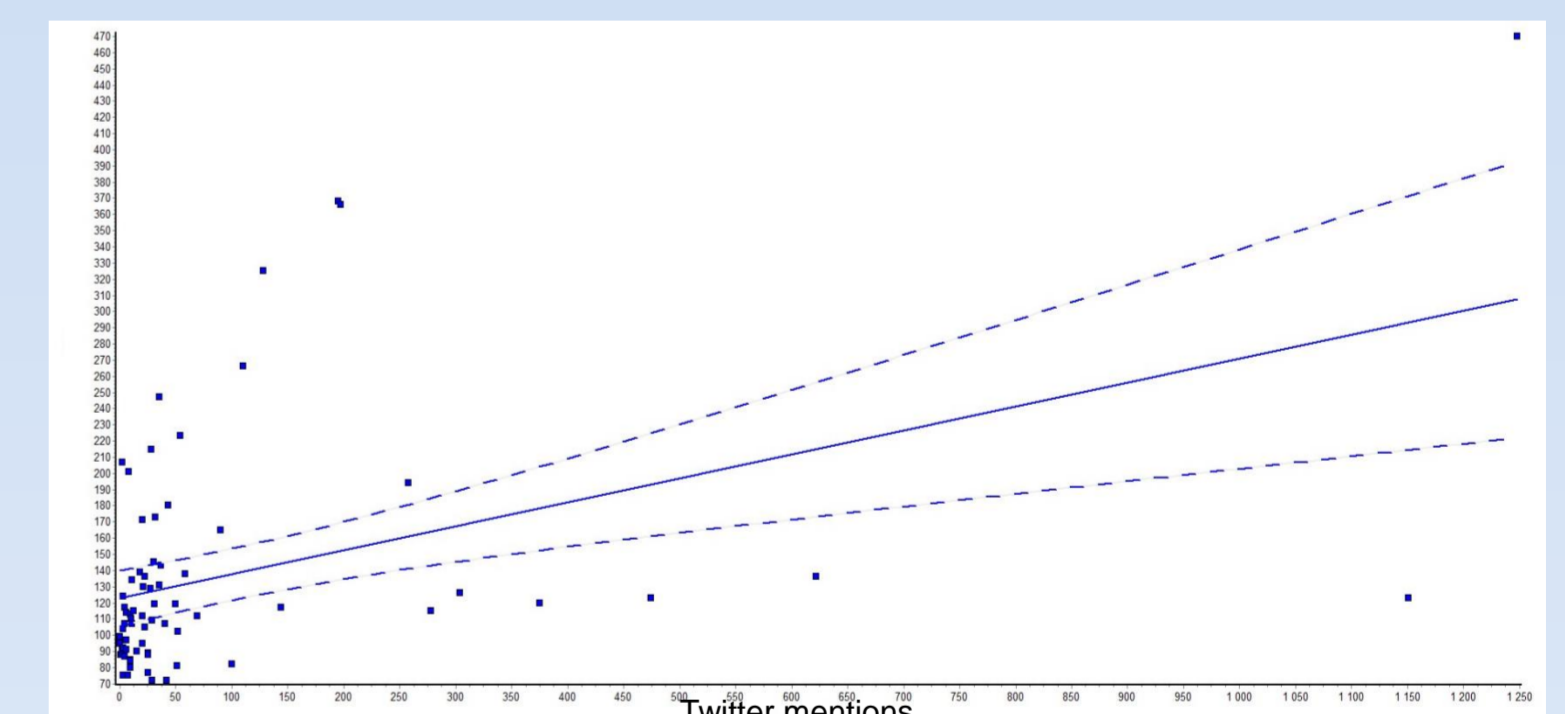


3. The average number and the median of the most common altmetric indicators were higher in the group of NON-OA than OA articles.



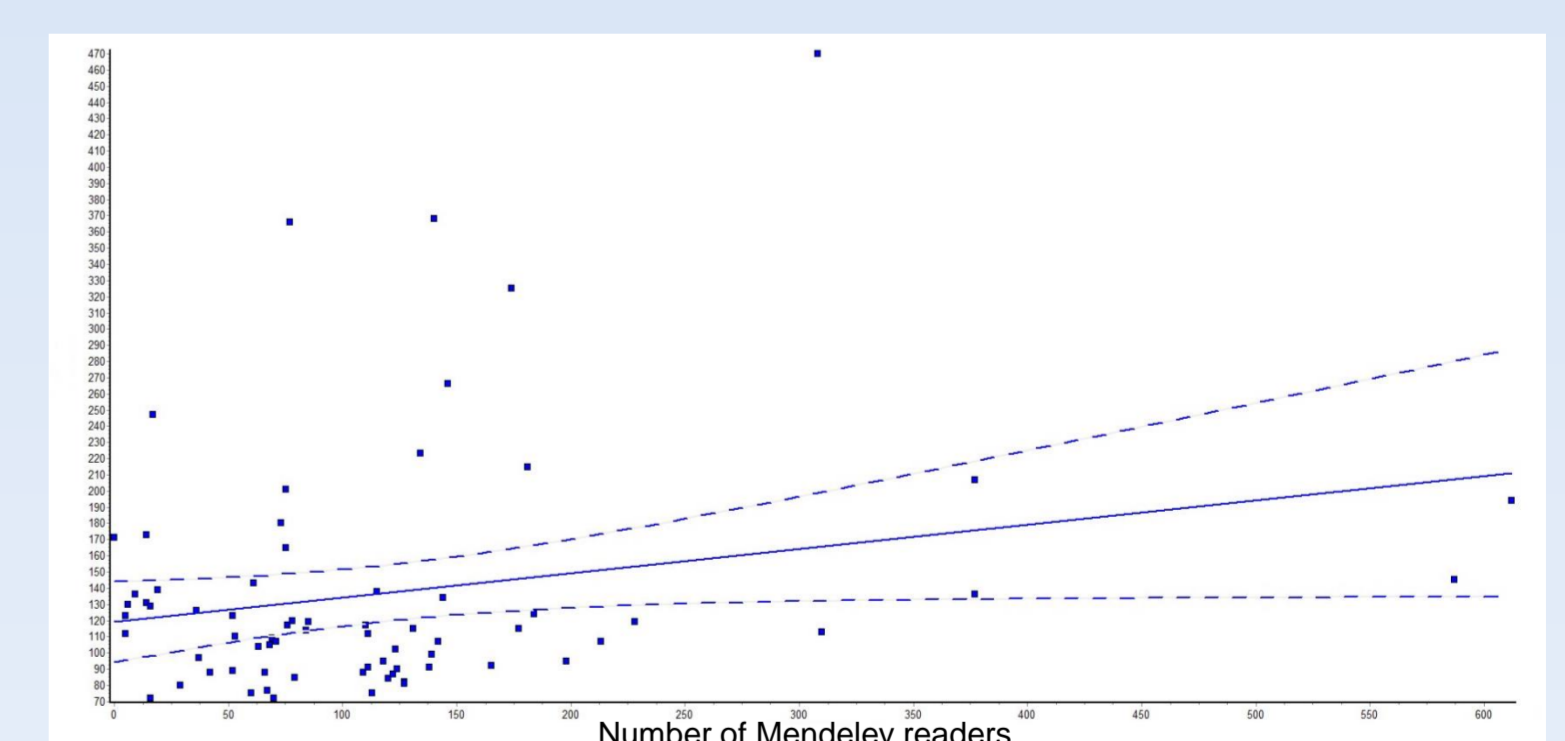
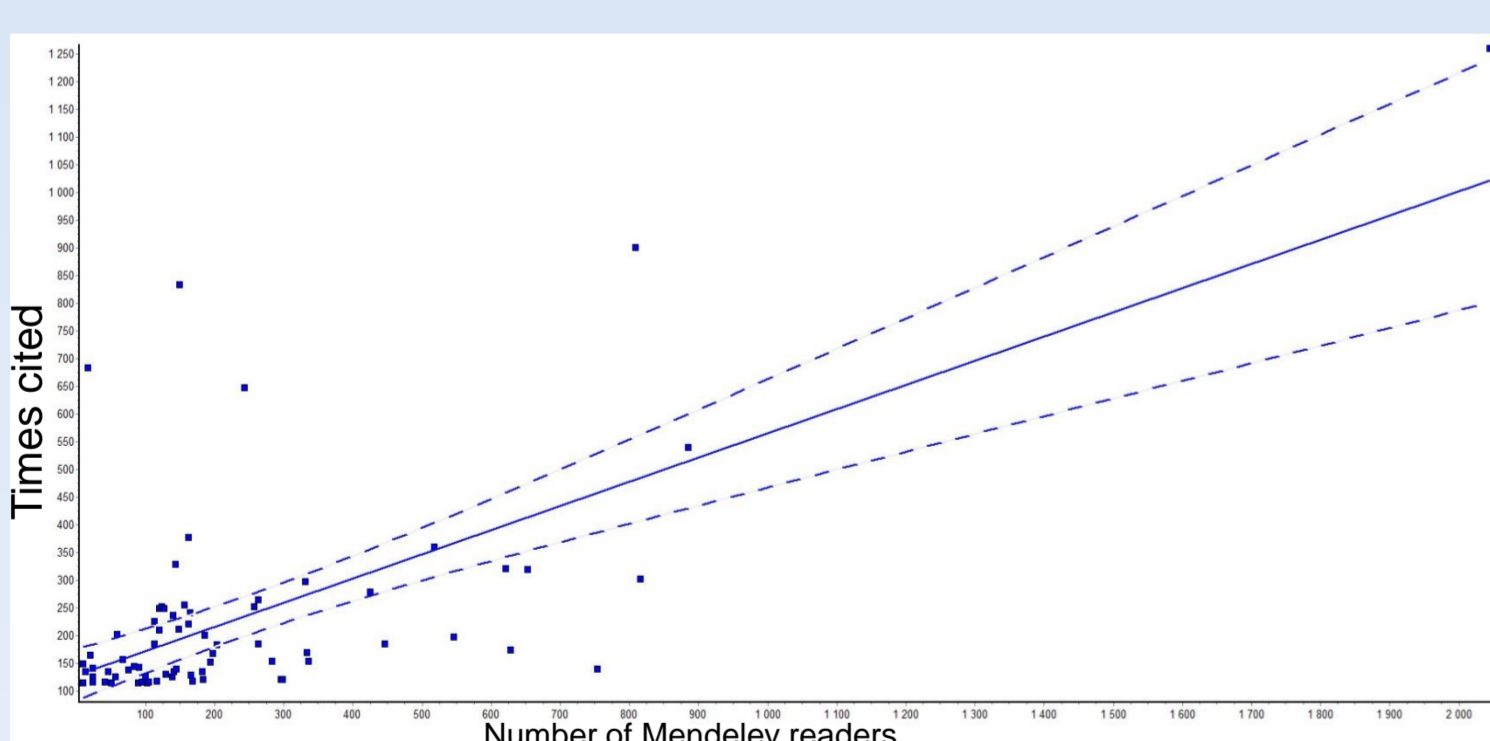
4. The number of citations of NON-OA articles correlated significantly with both Twitter mentions and Mendeley readers.

Spearman Correlation: Twitter $p < 0.0001$; Mendeley $p = 0.0005$.



The number of citations of OA articles correlated significantly only with Twitter mentions.

Spearman Correlation: Twitter $p = 0.0001$; Mendeley $p = 0.0508$.



Conclusions

NON-OA articles collected higher numbers of citations as well as altmetric indicators than OA articles. Citation counts of highly cited papers published by authors affiliated in Croatian scientific institutions correlated both with Twitter mentions as well as Mendeley readers in the group of NON-OA articles. In the group of OA papers citation counts correlated only with Twitter posts.

Materials and methods

The study consisted of two stages. The first stage was to collect and filter the data from the Scopus database. The metric data collected from Scopus were related to the authors affiliated in Croatian scientific institutions (simple search in Scopus "affiliation country": Croatia). The chronological scope of the study covered the years 2013-2017. Citation counts were collected for 1% of most highly cited papers (OA; N=71 and NON-OA; N=71). The sample had DOI assigned. The second stage involved the use of the Altmetric Explorer (<http://www.altmetric.com>) to extract the altmetric indicators of both groups of articles.