

## Impact of social media on health science journals

A recent announcement published in the beginning of 2019, by the European Commission, discusses the future of academic publication and scientific communication based on a report by a group of experts highlighting that future academic communication system will require that knowledge produced by researchers to become public domain, and freely available for the benefit of all population, and improve humans' well-being globally.<sup>(1)</sup>

The announcement recognizes that continuous digital revolution has a number of challenges and opportunities for editors especially because this revolution raises questions on what academic publication really means. Among important facts for future view of scientific communication, the European Commission emphasizes the need of (i) maximize the access by efficient dissemination: make efforts to turn academic studies results easily detectable and open accessible to everyone (ii) create communities: promote adherence and participation in research communities as knowledge network that distributed and value the changing of vital information to improve cooperation and competition, and (iii) flexibility and innovation: improve and innovation of academic communication system – both in social and technical aspects – to explore new opportunities and respond to changing needs.

For such actions, social web and social media resources are great tools and they are beginning to be included in daily routine of editorial office management of journals from different areas. In addition, these resources are to become criteria for indexing and permanence of scientific journals in indexing platforms such as SciELO.<sup>(2)</sup> Currently, patients are more likely to search online information related with specific health conditions (diseases, surgeries), and use social media to learn about health issues.<sup>(3)</sup>

Both academic and social aspects seem to contribute to increase online presence of health science journals in social media such as Facebook,<sup>(4,5)</sup> Twitter<sup>(6)</sup>, and other resources as LinkedIn, YouTube and Google Plus.<sup>(3)</sup>

This increase led us to reflect on the impact of social media towards health science journals, although a clear idea does not exist about implications of social media employment in editorial routine. This reflection allows to consider, based on some studies on this topic, that in a planned format, especially aligned with digital scientific marketing,<sup>(5,7)</sup> these medias have a potential to contribute to:

- Promote results of studies published in journals;

- Stimulate higher connection of journals with scholars and general public, and;
- Assess performance related with alternative metrics for access, use and circulation of information in social web.

To the first contribution, social media can help to promote the increase exposition of journals focused on their scientific visibility[9] and to create opportunities for updated information flow. A study that evaluated prevalence and activity of urology journals in social media reported the potential that these channels represent to disseminate information as unquestionable and also that most of urology publications are mentioned in social media such as Twitter and Facebook, therefore, showing the growth of these resources to promote scientific paper with potential to interest “followers”.<sup>(6)</sup>

The second contribution points out to the need of investments to find out about the role of journals in social media that must be done in a more interactive and engaging way,<sup>(5)</sup> thought in a format aligned with strategies to promote journals, perform scientific diffusion, analyze feedbacks, and monitor digital environments with the aim to achieve the best results.<sup>(9)</sup> Good examples can be seen in two studies that analyzed factors on the use and interaction of users with contents published in journals’ social media accounts. One study investigated role of Facebook page from a dermatology and syphilography journal that was created, according to authors, to provide valuable content for dermatologists and other specialists who worked with social media. The analysis included demographic data from “fans” or “friends” of journal’s social media profile. In addition, they analyzed statistics data about interaction of users with content published daily to identify what type of posting was more successful and what content followers liked the most.<sup>(4)</sup> The other study, among other goals, sought to evaluate online presence of journals that publish about pediatric urology and determined consciousness of parents about their children urological conditions by the use of social media. The authors’ considered this audience as target population interested in the content published by the journal. The results of the study showed that parents often have social media profiles, and they use this resource to learn more about health, besides, they also follow in social media scientific journals, health professionals and hospitals.<sup>(3)</sup>

The third contribution involves the social media impact on altmetric studies. Altimetrics has been considered as an alternative metric to measure scientific communication, similar to impact factor, but focused on social and responsible impact factors once this metric considers aspects that are disregarded in citations, such as, where the study was download from, who read, shared, and discussed contributions. These facts broad the visibility and achievement of investment results beyond the scientific community.<sup>(7)</sup> This important point in discussion is to reflect about what extent journals’ presence in social media can influence their

performance on alternative metrics and how this influence can have a positive correlation.

A recent study analyzed Twitter activity of all publications from journals indexed, in 2015, in the Web of Science, i.e., all articles with indicators of altmetrics in that social media. Results suggested that health science journals, in addition to be in a higher position in Twitter, which was the case of *NEMJ* (99%), *Lancet* (98%), *JAMA* (95%), *BMJ* (91%) and *JAMA Internal Medicine* (91%), were exactly the most popular journals among users who shared scientific articles in that year.<sup>(8)</sup>

The use of social media allows journals to provide updated information flow and creates a platform for professionals, health providers and patients to communicate, share, and discuss issues related with health care without the requirement of formal writing and investments needed in conventional academic and technical publications. However, to turn social media reliable information sources, scientific journals and health institutions should understand better the profile of their users (fans and followers), become content providers to address general population needs, and also design ways and resources to monitor performance of such contents and actions.

**Prof. Dr. Ronaldo Ferreira de Araújo**

*Universidade Federal de Alagoas, Maceió, AL, Brasil.*

*<http://orcid.org/0000-0003-0778-9561>*

DOI: <http://dx.doi.org/10.1590/1982-0194201900001>



## References

1. European Commission. Future of scholarly publishing and scholarly communication: report of the expert group to the European Commission. Directorate-General for Research and Innovation. Luxembourg: Publishing Office of the European Union; 2019.
2. Scientific Electronic Library Online (SciELO). Critérios, política e procedimentos para a admissão e a permanência de periódicos científicos na Coleção SciELO Brasil [Internet]. São Paulo: SCielo; 2014. [citado 2019 Mar 2]. Disponível em: < [http://www.scielo.br/avaliacao/20141003NovosCritérios\\_SciELO\\_Brasil.pdf](http://www.scielo.br/avaliacao/20141003NovosCritérios_SciELO_Brasil.pdf) >. Acesso em 23 out., 2016.
3. O'Kelly F, Nason GJ, Manecksha RP, Cascio S, Quinn FJ, Leonard M, et al. The effect of social media (#SoMe) on journal impact factor and parental awareness in paediatric urology. *J Pediatr Urol*. 2017;13(5):513.e1-513.e7.
4. Molina-Ruiz AM, García-Gavín P, García-Gavín J, Boada-Garciac A, Carrascosa-Carrillo JM. La página de Facebook de Actas Dermo-Sifiligráficas. *Actas Dermo-Sifiligráf*. 2014;105(7):e45-e50.
5. Araújo RF. Marketing científico digital e métricas de mídias sociais: indicadores-chave de desempenho de periódicos no Facebook. *Inf Soc Est. (João Pessoa)*. 2018;28(1):7-22.
6. Nason GJ, O'Kelly F, Kelly ME, Phelan N, Manecksha RP, Lawrentschuk N, Murphy DG. The emerging use of Twitter by urological journals. *BJU Int*. 2015;115(3):486-90.

7. Araújo RF. Marketing científico digital e métricas alternativas para periódicos: da visibilidade ao engajamento. *Perspect Ciênc Inf.* 2015;20(3):67-84.
8. Haustein S. Scholarly Twitter metrics. In: Glanzel WH, Moed HF, Schmoch U, Thelwall M, editors. *Handbook of quantitative science and technology research*. Netherlands: Springer; 2018.