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Revista Española de Cirugía Ortopédica y Traumatología

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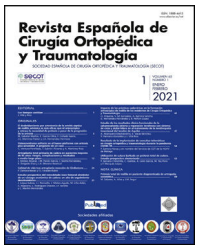

EDITORIAL

# [Translated article] Social media: a new scientific communication setting

## [Artículo traducido] Redes sociales: un nuevo escenario de difusión científica

Scientometrics is the field of knowledge dealing with the measurement and analysis of scientific production, which facilitates the comparison of institutional productivity, the ranking of journals and the assessment of the influence of individual authors. The best-known element of this field is the journal impact factor - an index calculated annually that reflects the average number of citations per year of articles published in the previous two years by a given journal. The impact factor is often used as an indicator of the relative importance of a journal in its field. Although it is a journal-level measurement rather than an individual-level measurement, it is also used to measure the productivity of a researcher or an institution

To overcome this handicap, there are indices for measuring the quality of production of individual authors such as the h-index, which measures both the volume (quantity) and the citation impact (quality) of publications. It is defined as the maximum value h of articles by an author that have been cited at least h times, and increases as an author's scientific career matures. Thus, a retired professor will maintain his or her high h-index, while a young scientist researching on a much more innovative topic will be at a disadvantage when compared, even though his or her recent publications may be of much greater significance at the present time.

We thus come to the measurement of impact at article level, measured in downloads, citations and what are known as ''*altmetrics*'', alternative or complementary measurements. The latter calculate the scientific impact based on the online repercussion of an article, analyzing both article views and downloads as well as online comments and mentions in blogs and social media, exports to bibliographic managers and finally citations in publications. They are a good indicator of the attention and interaction received by an article, and seem to be a better measurement of short-term relevance than the impact factor of an article. The most discussed articles today will also be the most cited articles of tomorrow. The most mentioned articles on twitter are 11 times more likely to be cited,[1] and social media dissemination has a greater impact on whether an article is cited than, for example, open access,[2] as has already been seen in some subspecialties of orthopaedic surgery and traumatology.[3–5] They are also a very early indicator of the impact of a paper; most citations occur soon after the articles are published online. For institutions or project funders, this could be as or more relevant an index of a publication's reach than the journal's impact factor.

Scientific publishers have jumped on the bandwagon and have included these measures on their websites. Elsevier (and therefore the Revista Española de Cirugía Ortopédica y Traumatología) uses PlumX Metrics[6]. It seems logical then that it is in the journal's interests that its article has the greatest online reach and are therefore more likely to be cited in the future, thus increasing the journal's own impact factor. This can be achieved in several ways: sharing the title and link of the article with a brief summary of it, generating infographics, broadcasting podcasts and inviting debates on an article or topic under the same hashtag.[7] Critics of this network dissemination may argue that it can facilitate the dissemination of poor quality work or that it ''rewards'' articles that go against the status quo. But as Salvador Dalí once said: ''whether they speak well or badly, the important thing is that they speak about me'', a phrase that has subsequently been much coined in marketing, communication and politics. The articles that publish conclusions contrary to the majority tend to be much cited in discussions of future studies. For example, the article by Kenzora which observed greater mortality in hip fracture patients whose surgery was carried out within 2 days of admission has been cited 126 times.[8] Furthermore, interaction on social networks invites ''post-review'' by peers who can detect errors in publication [9] or even academic fraud.

https://doi.org/10.1016/j.recot.2022.05.002

It is a fact that the highest impact orthopaedic journals have social media accounts where they share their tables of contents, infographics and abstracts of their most relevant articles, and invite participation. They ask the co-authors of the articles for their names on social media, if they can edit an infographic, or a short video, or if they would be willing to participate in a podcast explaining their work. The first quartile journals are also the ones with the most followers on social media,[10] producing a feed-back phenomenon that the more modest ones do not have the luxury of ignoring. Dissemination on social media is free and is a showcase for journals such as RECOT, which is firmly committed to improving the dissemination of its articles by creating infographics that can be shared. The podcast ''Entre Traumas'' is another window in which authors can present and discuss their findings. We invite all traumatologists to take advantage of social networks to disseminate their work, interact with the authors of articles published in RECOT and discuss among themselves the work of each new issue. Finally, we offer through our networks a stage where authors can share images, videos or infographics.

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