

Social media as an educational tool in interventional cardiology



Redes sociales como medio educativo en la cardiología intervencionista

Alfonso Jurado-Román*

Unidad de Hemodinámica y Cardiología Intervencionista, Servicio de Cardiología, Hospital Universitario La Paz, Madrid, Spain

Social media and the internet have changed the way we communicate with each other. We have never had so much information on this or that topic and never in such a direct, fast and global way. However, this new era does not come without risks and because everybody can be a potential creator of content, information itself has never been so susceptible to bias and demagoguery.

The capacity of social media to expose information quickly and generate discussion among users has given rise to its application in the world of policy, business, radio broadcasts and academia world.¹ Medicine is no stranger to this technological renewal and today we have doctors who are media-savvy. As it happens in many other aspects, cardiology is at the frontline of this trend.

As well as practical training and technical skills, essential for interventional cardiologists, theoretical training and constant update are also indispensable. The subjects covered in our core curriculum are increasingly difficult to apprehend since they include topics not only from general cardiology but also from interventional cardiology: physiology and coronary imaging, hemodynamics, techniques for the percutaneous treatment of coronary lesions (more and more complex) and structural cardiomyopathies, knowledge of devices and technical development, etc.

An ideal educational environment for interventional cardiologists should provide interesting and quality information that should be available to the largest possible number of users. Also, it should anticipate the participation of these users and update the contents in an ongoing basis.

Theoretical training that until recently was based on textbooks and printed articles has evolved into digital documents we can read in our computers or smartphones anywhere and at any time. In this context, social media provide a different teaching experience that is complementary and, at times, even better than the teaching experience provided through the traditional mechanisms by which academic information used to be broadcast, used and integrated in the routine clinical practice of interventional cardiologists.²

Today it is common that scientific meetings are announced in advanced, broadcast live and commented later on social media. At every meeting we see influencers competing to turn their contents into trending topics. This is how a series of results and comments

end up in social media creating a virtual link between the attendees to these conferences and those who follow them digitally through viral terms such as #CardioTwitter.²

Aside from the immediacy and speed of broadcasting, the most significant difference between the on-site discussions that are held at meetings and those that take place on the social media is the number of active participants. Probably in no other forum, interventional cardiologists on training can start peer-to-peer debates with the leading researchers of landmark studies.²

So, anybody with a real interest can be instantaneously briefed on the latest studies presented at the most important international meetings without having to actually attend the meetings. And even when it is not possible to watch live from social media, scientific online platforms such as PCRONline.com, tctmd.com, and hemodinamica.com give access to these contents after the meetings. We should emphasize here that we also enjoy these 100% virtual conferences through platforms such as eCardio, organized by the Spanish Society of Cardiology, with an increasing number of followers.

Over the last few years, an increase in the number of users and Twitter activity has been documented during the main scientific cardiological meetings. This not only has not had a negative impact on on-site attendance¹ but has brought the attendees closer to the conferences, improved networking and spurred the wish to attend future events.³ These findings are indicative that the use of social media during scientific meetings improves communication and promotes educational and research efforts. Despite the early resistance from certain medical societies, the use of Twitter during these meetings has become an important and almost essential element for scientific broadcast and medical educational purposes.^{1,2}

Aside from the training that actually takes place in these meetings, scientific journals on interventional cardiology are second to none and they usually include, as part of their editorial team, community managers who run their social media. The number of followers on Twitter is more and more important to them and it has actually grown exponentially over the last few years. Today it is not unusual to see that the leading author's Twitter account user name is one of the requisites established by these journals during the manuscript submission process.

* **Corresponding author:** Unidad de Hemodinámica y Cardiología Intervencionista, Servicio de Cardiología, Hospital Universitario La Paz, Paseo de la Castellana 261, 28046 Madrid, Spain.

E-mail address: alfonsojuradoroman@gmail.com (A. Jurado-Román).

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Another development brought to this context by social media is the possibility to open up debates and create scientific review-like content trends about a specific subject on real time. Traditionally, the publication of this or that research was based on contributions from its authors and comments from selected reviewers and editors. Today, however, the critical analysis that follows the publication of landmark studies on social media has given rise to reviews coming from the CardioTwitter community. We have witnessed the almost surgical dissection of studies such as the #ORBITA (from pre-randomization medication to the design and details of its statistical analysis).²

This new way of broadcasting research studies has put into question what indicators should be used to measure the true impact factor of academic papers since now they are shared not only through traditional means but also through various alternative means including social media.⁴

Beyond meetings and journals, social media facilitate communication with other colleagues which is an essential tool of the learning process. This nearness among colleagues and the creation of scientific communities have become something common among cardiologists who are active on social media. The support expressed through comments, experiences and researches from others or simply by clicking *like* and *retweet* has built social bridges across the world in a way that facilitates and improves academic collaborations.² In the past, technical or technological advances would take years after being discovered before being publicly implemented; today this process has been reduced to a matter of days. The percutaneous access through the distal left radial artery is an example. It was on social media before it was even made public through the traditional means of communication.⁵

Beyond all the potential advantages of social media as an educational tool, we cannot omit aspects that may be negative in this context. We should bear in mind that it is not always possible to confirm the validity of the content being broadcast and the accuracy of data provided. Also, fake news may travel faster on the social media as opposed to actual news.⁶ In cardiology, as it happens in other fields, the speed at which news travel on social media may be governed by factors unrelated to their validity.²

Also, the concision required by this type of platforms favors simplicity as opposed to accuracy and novelty as opposed to detailed information. The democratization brought by participating in these scientific debates where anybody can give their opinion can perversely lead to demagoguery triggered by the popularity of the somehow most sarcastic or impacting comments.²

In sum, social media in general and Twitter in particular have given voice to interventional cardiologists from all across the field, created an open platform for the discussion and instantaneous review of academic and teaching materials on real time, and eventually improved the connection among the different communities that create and receive studies.² However, the practical lack of filters and monitoring in the generation and transmission of these contents comes at a price. Even through the benefits of social media as an educational tool are evident, we should profit from it without losing sight of the complex training process that we, interventional cardiologists, have to go through where conferences, treaties, articles, mentors, teachers, colleagues, and patients are the sources of knowledge we learn from on a daily basis.

CONFLICTS OF INTEREST

The author declared no conflicts of interest whatsoever.

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