EDITORIAL

The power of online tools for dissemination: social media, visual abstract, and beyond

Knowledge is power and we believe in a philosophy where all have access to knowledge. We live in a rapidly evolving environment and access to resources is paramount to keep the pace with scientific innovation. Social Media (SoMe) and digital learning tools provide a unique opportunity to reach an unlimited audience, and their value has been emphasized, particularly by the current pandemic [1]. In an unprecedented need to share knowledge rapidly, SoMe has flourished and in the post-pandemic world, it will continue to accommodate the emerging needs and realities. In addition to knowledge distribution, SoMe has the potential to establish meaningful connections beyond time or geographic restrictions and thereby fosters collaborative research.

ESOT is embracing the continuous advancement in medical education. In this view, the ESOT *Transplantation Learning Journey, (TLJ) 2.0*, was delivered entirely online with great success, with the rapid data collection, analysis, and discussion for seven workstreams [2] facilitated by our SoMe channels.

Beyond communication and distribution, SoMe platforms, specifically Twitter, play an increasingly important role for scientific journals: impressions, engagements, shares, and retweets are a novel benchmark for online research attention, due to their substantial impact on downloads and Altmetrics. These alternative metrics proved to positively affect the citations and ultimately the impact factor [3], the currently most used and recognized measure for a journal's success.

Innovative tools to share research findings and generate conversations among medical professionals and scientists, but also with the general public and stakeholders, are growing by the day. Content suitable for communication through SoMe such as visual abstract, a graphical summary of a journal article, has become an essential part of the article itself. Its function is not to replace the full paper read, but to provide an immediate concept of what the research is about. The use of graphical abstracts results in five times of citation-only and more than 3.5 times key–figure tweets engagements, respectively [4]. The use of a personalized digital object identifier (doi) link that can be shared by the authors and posted on institutional repository and SoMe network, helps to track and facilitate the relative sharing rate, download, and readership.

Different SoMe platforms are available for different purposes [5]. Among the commonest and most recognized for initiating discussions through microblogs, Instagram has become very popular for teens and young adults and recommended if the target audience is under the age of 40. YouTube, whose main content is based on videos, could be useful for educational scopes, while Facebook could be more versatile, providing an easy way to create an online community around a topic or project, especially beyond the 40+ year old demographic.

Another common platform is LinkedIn, which allows members (both workers and employers) to create profiles and "connect" to each other in an online social network, mimicking a real-world professional relationship. Members can invite anyone, whether an existing member or not, to become a "connection" [6].

Transplant professionals are aware and recognize the role played by SoMe, peculiarly in relation to the organ donation and transplantation world [6,7]. As an example, there is evidence of the possibility to increase the number of living donors by providing guidance to kidney transplant patients in how to use social media, to be advocates, and to share information about living kidney donation to their social network. In the USA, the "Facebook effect" [8], consisting in allowing members to specify "Organ Donor" as part of their profile, increased the number of new donor registrations by approximately 21-fold by the day after the implementation, that remained constantly elevated over the following 12 days. Additionally, online communication and instant messaging, if undertaken in an encrypted way, could be useful for transmitting histological information through smartphones [9] or even for virtual connection through which organ quality can be assessed macroscopically, thus providing a second visual opinion, that may contribute to the transplantation process optimization.

Despite the expressed concepts herein reveal enthusiasm toward a broad use of SoMe technologies, there are important caveats. First, the lack of

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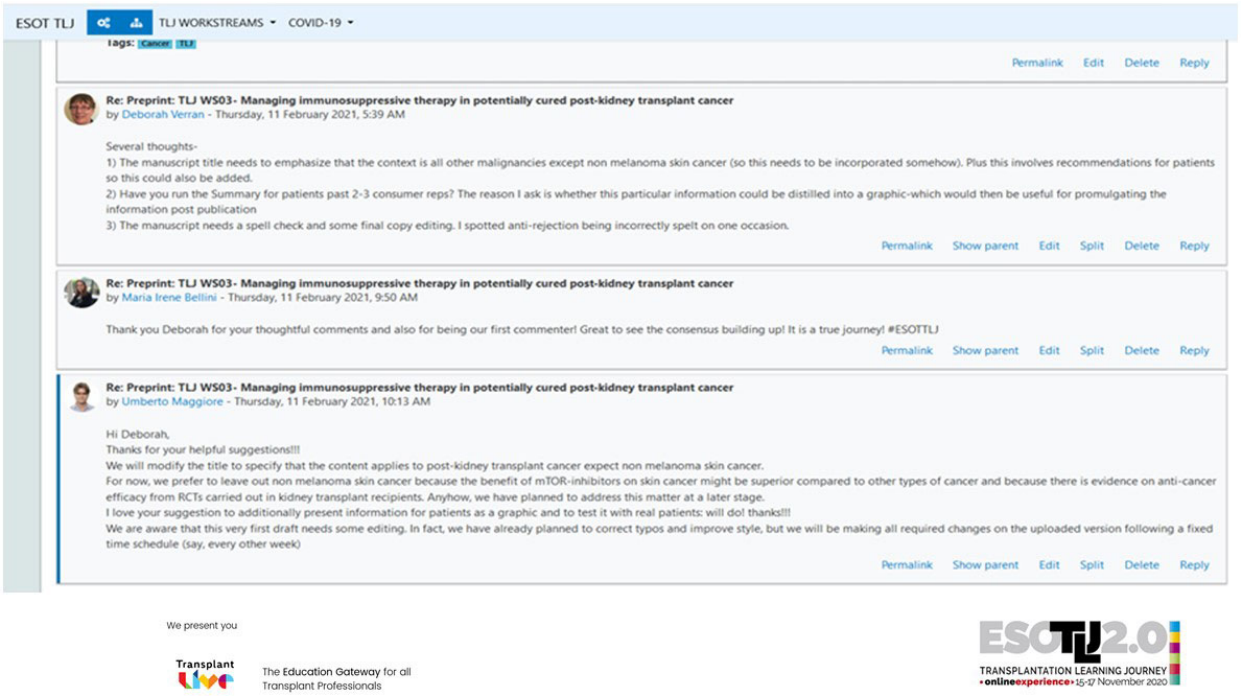

Figure 1 Example of online discussion of a pre-print manuscript hosted on the transplant live ESOT repository.

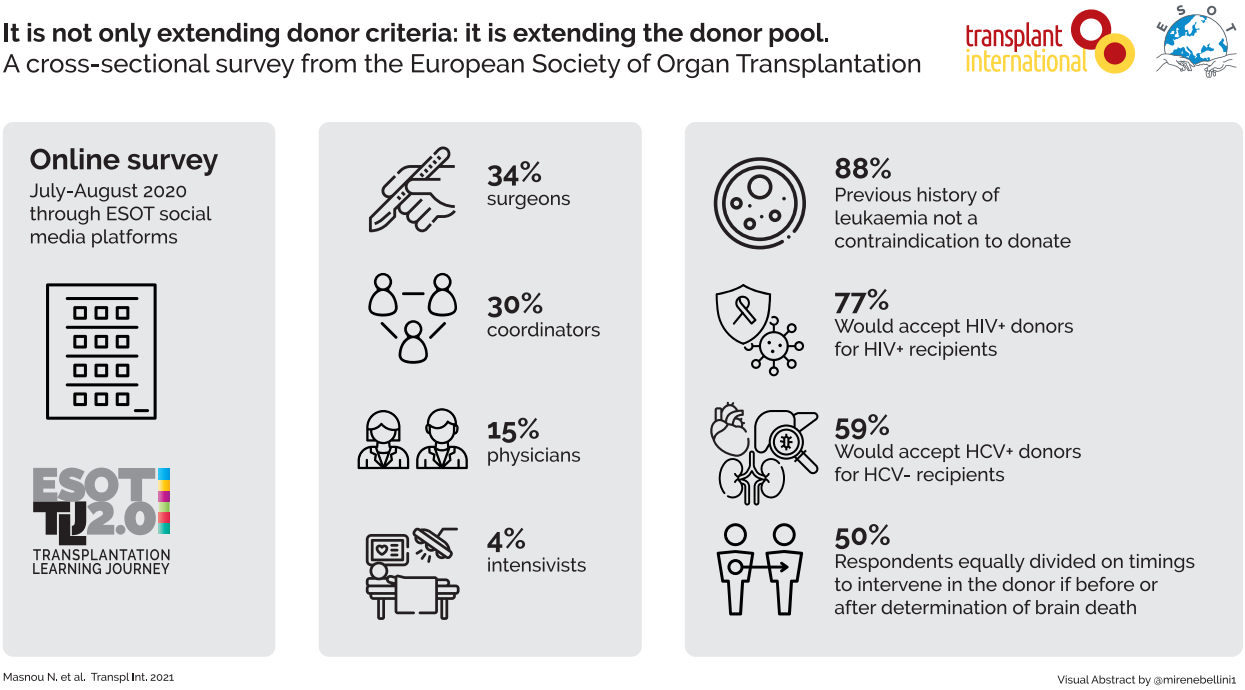

Figure 2 Visual abstract from April 2021 Transplant International issue.

quality control of a number of these platforms can be a potential mislead for a true and reliable information dissemination. A cautious approach is also recommended with regards to anonymity and potential confidentiality breaches when sharing data, being the formalities for patient's consent and involvement still in need of regulation.

Our immediate challenge is an effective, meaningful, and durable utilization of SoMe applications like Twitter, Facebook, YouTube, Instagram, and LinkedIn to

contribute to the science distribution and the development and application of methods and strategies to combat misinformation at every level. Transplant International already embraced this dynamic philosophy [10,11], hosting webinars in the companion ESOT e-learning platform, Transplant Live [2], to discuss current hot topics, as for example the management of transplant programs during the pandemic. Online platforms represent also a useful tool to develop consensus or act as pre-print repository of articles prior to the review process, for public consultation and to further engage with the community (Fig. 1).

Transplant International has recently implemented the visual abstract format (Fig. 2) and will provide its authors with a sharing link for accepted papers. In the near future, we will launch a new interactive article format, called "Transplant Quiz," with continuing medical education (CME) credits to be granted for those successfully taking the online quiz on didactic cases, as an additional educational opportunity.

Transplant International recognizes the increasing role SoMe technology is playing in people's lives, ranging from research collaboration, patient and provider education, personal and professional support, and academic discussions. While adopting a responsible and cautious attitude, we are committed to utilize SoMe, in order to establish an active partnership between the journal and our authors, with the aim at better disseminating and increasing the awareness of their research, to the mutual benefit of both parties.

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