GUEST EDITORIAL

Open science and quality in publishing

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According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), open science is defined as "a set of principles and practices that aim to make scientific research from all fields accessible to everyone for the benefits of scientists and society as a whole" (1). But open science encompasses more than just the accessibility of scientific knowledge. It represents the ideals of inclusivity, equity, and sustainability, not only by granting access to information but also by fostering an environment in which the knowledge creation process embraces diversity and ensures a lasting positive impact.

As a pivotal dimension of open science, open access strives to provide unrestricted and readily available online access to scholarly resources. It stands as a progressive publishing paradigm for scholarly discourse, ushering in an era where research outputs are accessible to readers without financial barriers. This contrasts with the conventional subscription model and its paywalls (2).

Open access, as a means to facilitate rapid and extensive dissemination of science, contributes to scientific advancement and the quality of scholarly output. The open availability of articles, records, and data fosters more rigorous and transparent scrutiny by peers, while also enabling scholars to build upon existing findings, expediting innovation and scientific progress. Furthermore, it fosters greater collaboration among researchers from diverse backgrounds, with the potential to mitigate disparities across institutions, countries and regions (3). However, open access is often misconstrued with predatory publishing practices, giving rise to concerns regarding the quality of open-access publications (4).

Indeed, the quality of a publication is not inherently tied to its mode of access. A notable illustration of this concept is found in Latin America, regarded as one of the globe's foremost regions in embracing open access and fostering enduring, collaborative frameworks for the diffusion of research. These frameworks guarantee that researchers and the public can freely access the published content of research conducted within their region (5).

Emerging from Brazil, the Scientific Electronic Library Online (SciELO), established in 1998, stands as an impressive decentralized publishing platform that hosts over 1,200 peer-reviewed journals spanning fifteen countries across four continents: South America, Central-North America, Europe, and Africa (6). Quality in the SciELO collections is ensured through the application of well-defined criteria, such as selection for indexing, and using these criteria to enhance the visibility, accessibility, usage, impact, and credibility of these journals. Meanwhile, Redalyc, rooted in Mexico since 1995, presents another ecosystem, hosting nearly 1,000 journals from fourteen Latin American countries, in addition to Spain and Portugal (7).

Perhaps one of the primary contributions of the Latin American publication ecosystem lies in its ability to demonstrate the feasibility of a system that encourages extensive dissemination and integration, while fostering research quality, effectively addressing the current need for scholarly communication in the era of open science (8).

Open Science is a path of no return. You do not have to be the first to join, but you should not be the last, as you risk losing your role in history.

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Prof. Sigmar de Mello Rode is a dentist and a full professor of Orofacial Pain at UNESP Dentistry School in São José dos Campos, Brazil. Sigmar has served as the Past President of the Latin American Region of the International Association for Dental Research (IADR) and the Brazilian Society for Dental Research (SBPqO). He currently holds the position of President of the Brazilian Association of Scientific Editors (ABEC Brasil). He previously held the role of Editor-in-Chief of the Brazilian Oral Research from 2006 to 2014 and presently serves as a Section Editor for CLINICS and Acta Cirúrgica Brasileira. He is a member of the Council and also serves as the Brazilian Chapter Chair of the European Association of Science Editors (EASE). He is also a member of the Scientific Committee of the Scientific Electronic Library, SciELO Brazil. His research interests include teaching, scientific ethics, scientific publishing, clinical dentistry, temporomandibular joint studies, and oral and maxillofacial prosthesis. He has published more than 200 articles in scientific journals, in addition to books,

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Dr. Leila Posenato Garcia holds a Ph.D. in Epidemiology and serves as a researcher at the Institute of Applied Economic Research (Ipea). She currently holds the position of Research Manager at the Jorge Duprat Figueiredo Foundation for Occupational Safety and Health (Fundacentro). She is an Associate Editor of the Brazilian Journal of Occupational Health (RBSO) and a board member of the Brazilian Association of Scientific Editors (ABEC-Brazil). She is also a member of the Gender Policy Committee of the European Association of Science Editors (EASE), as well as the Forum of Journals' Editors of the Brazilian Association of Public Health (ABRASCO), where she previously served as a coordinator. Actively engaged in promoting integrity, diversity, and equity in research practices, she has authored over 100 articles.