

## THE INTANGIBLE VALUES OF SCIENTIFIC PUBLICATIONS

On several occasions we have editorialized about the virtues and defects of the 'impact factor' (IF) and its utilization, particularly in the so-called developing countries, highlighting its consequences for scientific journals in the latter.

The IF, conceived by Eugene Garfield in the 50's and calculated since its beginnings by the Institute for Scientific Information, more recently in the hands of the publishing house Thomson Reuters, has played a central role in the evaluation of journals, institutions and scientific papers in those countries and publications that make up the 'mainstream' of science. Originally, it was intended to be an aid to libraries (or to influence in their purchases) regarding what journals to subscribe to, but in time it came to be used as a measure of the quality of the scientific output of institutions and researchers.

For the institutions and the scientific community of peripheral or 'developing' countries, the IF has served as a guideline to appreciate their quality and to emulate the centers of knowledge in a welcome search for improvement. Notwithstanding, it has also been the source of frustration when facing adverse cultural characteristics such as differences in language and disregard for important editorial efforts in autochthonous languages different to English, the preference by researchers to cite papers, including their own, published in mainstream journals, as well as the lack of journals of good quality.

This month of May 2013 the expected 'surprise' took place. The pronouncement called 'Declaration on Research Assessment' drafted at the San Francisco meeting of the American Society for Cell Biology, held last December, was released. It has already been endorsed by several thousand scientists and editors, and by more than two hundred scien-

tific societies. The pronouncement has been baptized and is known by its acronym, DORA.

In DORA, an important group of researchers inscribed in the mainstream of science draws attention to the urgent need to improve the manner of evaluating the scientific output by academic institutions, funding agencies and others, at the same time that it points to incontrovertible facts that illustrate the bad and inconvenient usage given to the IF. Its frequent use as the main parameter to measure and compare individuals and institutions is totally inappropriate in view of the numerous deficiencies that are indicated. Above all, it is necessary to evaluate the research as a function of its own merits, and not on those of the journals in which it is published. The document includes concrete recommendations to funding agencies, academic institutions, editors, suppliers of measuring indexes and systems, and for the researchers as well.

For the scientific communities, institutions and journals in developing countries the consideration of intangible values, ignored by the IF, should acquire particular significance. The adequate valuation of the scientific research efforts cannot be restricted to the consideration of an impact measure, whichever it might be. It must consider, among other various factors, the originality of the research, the context in which it has been performed, the idiomatic limitations, its role in the training of future generations of scientists, the social consequences of the activity...

The additional work that all of this will represent for the committees in charge of admissions, evaluations and promotions of researchers will certainly be worthwhile, as will be that of those making decisions about the pertinence of the research and the amount of funds to be granted, and for those that classify and evaluate the publications. We all need it.

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