

... the research really ends with the publication of papers in specialized scientific journals, only then does the contribution become part of scientific knowledge in a broad sense ... even further ... the research ends only when the reader understands the article; that is, it would not be enough to publish it, but it would also be necessary for the audience to understand its content...

Ricardo Cantoral (1997)

EDITORIAL

The report of the 2019 Census has estimated the population of Colombia in 48,258,494 people, of which 51.2% are women: that is, the transforming burden to a new social status will pass - as never before - by the need to guide efforts to empower and raise the integral level of women. Although 96.3% of Colombians have Electric Power coverage, only 86.4% access the aqueduct, 76.6% access the sewer system; and only 43.4% have access to the Internet (fixed or mobile): that is, any sense of prosperity will go through the growth of the material and technical base of Colombian society.

To the above it is added that about 16% of the total population - eight million people - is dispersed in the rural area; so ensuring universality and equity in the purpose of educating the new Colombian citizen will go through the abundance of material and spiritual values, but without any gap in the territory.

On the other hand, the MINCITI - Ministry of Science, Technology and Innovation - of Colombia called for strategies of social transfer and appropriation of Science, Technology, Innovation and Entrepreneurship, laying down a characteristic: for the consolidation of a Knowledge-Based Society (KBS); not as an information society, nor as a learning society, or as any form of transition between them: as if it considered that we are already in KBS. Despite having some exemplary realizers, and that there have been successful cases of transforming data into information, conversion of information into knowledge, and management elements of that knowledge, it is worth indicating that we are not in any form of KBS.

The idea of a MINCITI can be established so to guarantee the transition in Colombia to an Information Society, then to a Knowledge-based one, in order to arrive in a viable period of time to a learning society that assimilates the best of current rationality and civilization in a real country. The areas, including, could be the always discussed same: one of creation and exchange-spaces; portals; platforms; industrial, scientific and technological parks; knowledge markets-; and another one of diffusion and application - regions, communities, neighborhoods, companies, universities, organizations, leaders and social groups.

Finally, the policy issued by COLCIENCIAS - now MINCITI- generated three tensions: Publication Vs Impact, Publication Vs International Visibility, and Publication Vs International Scientific Community. For the first tension, the H index has been incorporated in the last 5 years - as an alternative route to the classic JCR and SJR - to measure the impact of journals and classify them. To the second tension of Publication Vs International Visibility, we continue with the incorporation of the publications to indexing and summary systems -ISS-, dominated by English language systems. And, to the third tension of Publication Vs International Scientific Community, the fusion - or suppression of journals - as a mechanism for recognition in the national and international scientific community, but in the long term.

However, in the other hand, there is a first reference that skews the analysis: the salary and benefit regime of university teachers -regulated by decree 1279 issued in mid-2002, in the case of public universities-, due to ministerial demonstrations that affirm that academic productivity has significantly impacted the nation's budget, since the financial charge generated is proportional to the number of journals, which is debatable by the minimum number of high-level researchers; besides that, as some researchers have insistently indicated: the role of the teacher has been undervalued because of the intellectual production associated with his achievements or positive performances in this role are not measured -recognized or evaluated- with criteria and objective instruments that result in salary points as occurs, particularly, with indexed journals.

Considering all the above, it is added that when it is indicated that we have to go from a baseline of 6.721 articles in 2014 to 13.400 articles in 2018. But, at the same time we know that these numbers are below countries like Brazil, Mexico, Argentina or Chile, and well below European countries or North America; and the exponential growth of journals that occurred in the decade from 1997 to 2007, drastically decreased from 2008 to today: from 542 journals indexed for 2014 it went to 244 in 2017: the tendency is clear; nothing remains but the concern of the

inconsistency of policies in this area.

Scientometric criteria may well raise indicators and international visibility to universities, but they may also produce effects with respect to the research realities of a country that must confront stories or problems of social and armed conflict, diseases, pandemics that impact the fragile health system, among others.

That is to say: it is clear that we could say that there are universities that have a policy, processes and some very advanced impacts in research; other universities have advanced, but they have an average impact and perhaps with a greater emphasis on teaching; some more universities are just in the process of consolidating their research. Therefore, the research systems of the universities of low and medium impact in research should be strengthened, but above all, they should be focused on the areas that the OECD indicates when research systems have strong editorial structures so that they contribute collaboratively from the journals concentration regions that are far from vulnerable problem centers with national and international research groups and that obey pertinent research programs.

The challenge is to advance in the so-called scientific realism: publish journals in good institutional conditions, offer quality journals to the authors; writing to a second language; address key issues for the development of the regions, from engineering and technology; and above all, research projects well contextualized and supported in basic sciences and humanities.

In short, publication, reading, citation and content comprehension of quality journals should be enthroned in the academic environment. Because these are the channel of communication of confidence that add value to the national and global scientific community collaborative networks, so the creation of Indexing and Referencing Systems (IRS) away from the own institutions that pay for local science, regional and national, are oriented towards public worldwide recognized: the research community is strengthened with the existence of many high quality journals.

This fact, together with future challenges such as being part of regional initiatives such as Scielo, Redalyc, and global ones such as Web of Science (WoS), will now be the path for *Visión Electrónica*, beyond the solid state; with silent institutional contributions from editors-in-chief, layout designers, proofreaders of mother tongue style and English, editorial assistants, monitors; and local, regional and international contributions from our editorial committee, scientific committee, and peer reviewers; and, of course, our local, regional, national and international authors who give sustainability to this Colombian editorial project.

In this issue of *Electronic Vision*, corresponding to the second special number of 2019 in the **Research Vision** section, there are articles with topics in: assembling the burst; variables to improve QoS; the gauge concept in physics; interaction between a particle with an erythrocyte; Identification and fault detection; ports scan using mobile agents.

In the Case-Study Vision section articles in: information Security Auditing on ISO/IEC 27001; cybersecurity risk analysis systems in Colombia; test bench for gasoline injectors; automated systems integrated to a BMS at Airport; Remote Crops and critical variables.

For the **Current Vision** section one article about electronic civil surveillance oriented to communications; automation and control of greenhouse; knowledge on bidirectional sphere tests; rehabilitation systems for the wrist on ulna-radius articulation trauma.

In the Context Vision section, four articles: first, about the social responsibility strategy in oil companies; second about the *Elementa curvarum*: Apollonius and Descartes; another: Historical considerations for the teaching of the derivative; and: Historical development of subseries of the harmonic series.

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