

Presentation

The relevance and future of academic journals

Xicoténcatl Martínez Ruiz
Editor in-Chief
Instituto Politécnico Nacional

A modern-day editor of academic journals experiences his or her career from a kind of crossroads, made of time, possibility and the recreation of human dilemmas that define us; some of these dilemmas are intrinsically part of the ancient but currently relevant topic of truth and the origin of knowledge (*episteme*). There are two examples in the recreation of these dilemmas that I want to highlight: the ethics of publication and the objectivity of knowledge. I consider the former fundamental in speaking of the future of academic journals—whether research-based, scientific or popular in nature—because it is related with what we call the ethics of information. The latter is not a future, but always present topic, traversing our history, never invalid; on the contrary, it requires ongoing inquiry into the origin and validity of knowledge---an inquiry not only for researchers, but also for those who construct academic journals.

The ethic dilemma present in academic publication comprises topics also relevant to the current philosophy of information. The framework of this dilemma reveals various challenges in the management of the information and knowledge produced by research. Specifically, these challenges can be—among others—transparency, objective scientific publication, laws to protect and ensure non-commercial access, copyrights, war through the use of information or scientific advances with the purpose of systematic violence (Floridi, L., and Taddeo, M., 2014); other concerns are if the knowledge created has the intention of benefitting only a few or humanity at large, and the use of ITC and the development of systems to monitor commercial or non-commercial digital publication (Turilli, M. and Floridi, L., 2009). At this crossroads, the editor constructs—in each issue of a journal—a feasible version of a collective project of knowledge, created by cooperation and research guided by a topic or topics shared by the community of researchers. Even if their ideas diverge, proposals important for the benefit of contemporary societies are constructed. For this reason, an academic journal is a collective project, an integral part of others that form another collective, namely the systems for generating, communicating and using the knowledge produced by research.

In the collective project that is an academic journal, there is an exchange of ideas that is simultaneously part of and the beginning of the dialogic and interdisciplinary process that we witness today in scientific production. There we find a dialogue that is always new, where the vital questions of different historic moments are formulated. With each issue of these journals there is an exchange of listening and speaking, ideas come and go, as if they were passing over a bridge, connecting the two ends. Authors and readers move over the solidity of this bridge, which rests upon the ethics that bolster every issue of an academic journal. Consequently, a journal is capable of being, in itself, a tradition of research and knowledge. Gil Antón (2014) calls them "academic traditions," and in a brief description he captures an idea that should be forgotten: "...in these journals we should publish not for the jury committees, but for the readers: in this case, for the academic community in question and others that seek the generation of a critical movement" (p. 202). A few years ago, I quoted these words by Manuel Gil Antón, and in the time that has passed I believe them to be even more relevant, above all amidst the frenetic race of the modern-day researcher shaped by jury committees, always writing with them in mind—as Gil Antón expresses. I would add, from an editor's perspective and not from the jury committees' point of view, that it is more and more common to find researchers that are already shaped, predetermined, forgetting the precious opportunity to communicate with a critical reader who seeks knowledge and ideas to take them to the very heart of social change. The establishment of a reward system obscures the opportunity to contribute and offer a collective benefit, speaking to communities that aim to generate—as Gil Antón expressed—a critical movement, in the midst of ever-growing economic inequalities, as well as disparities in the access to opportunities, justice and knowledge.

Academic journals are—in large part—a social benefit, a benefit for all humanity; this nature must not be forgotten by anyone who contributes to their creation. These statements are not mere rhetoric. This has been demonstrated by Juan Pablo Alperin (2015) in his dissertation, *The Public Impact of Latin America's Approach to Open Access*, which provides a series of data to illustrate how a non-academic public from diverse sectors is interested in and reads academic journals, specifically through the Latin American mechanism of open access. One of the lessons Alperin (2015) leaves us is the opportunity to rethink the meaning of inclusion, where the common good is knowledge generated and published by the institutions of higher education that develop research: "This is the motivation behind Latindex, a system of information that has become the most inclusive and comprehensive source of information with regards to academic journals in Latin America, the Caribbean, Spain and Portugal" (p. 15).

Alperin's study gives voice to the Latin American generations that have worked towards this public impact of academic journals and, at the same time, speaks to future generations of researchers who will carry the enormous responsibility of successfully confronting this opportunity. This responsibility has become a possibility thanks to three projects, among other collective wills, which I dare say bring hope to the future of academic journals and are now a Latin American model: the Regional System of Online Information for Scientific Journals in Latin America, the Caribbean, Spain and Portugal (Latindex); Scientific Electronic Library Online (SciELO); and the Network of Scientific Journals of Latin America, the Caribbean, Spain and Portugal (Redalyc). Based on the observable results of these three Latin American projects, and considering them in an interconnected way, as an open access multi-system, they are capable of linking other knowledge networks, similar to a multi-agent system or MAS (Floridi, 2015), and preserving published research as a benefit for all humanity. Could we perhaps consider these three examples as fundamental guidelines for the future construction of academic journals based on other ways of conceptualizing, managing, publishing, offering and cultivating a social impact of knowledge?

In order to begin an essay in response to this question or to plausibly develop a necessary utopia, I recommend three reflections, among many others, for the construction of the future and relevance of academic journals. The first implies the inclusive character defining the availability and open access to the knowledge and information generated in our time; in other words, they should exist as a benefit to humanity. The second point is the cultivation and reinforcement of the ethic upon which academic journals and their goals are founded, with a view and awareness of the enormous risks that published scientific advances catalyze for the future. The third point includes the reflections and awareness of the academic tradition inaugurated by a journal, which also intrinsically embraces other projects, not only academic, but also social, and focused on the reduction of economic inequality with a vision towards human development and benefit. In other words, journals as academic traditions are more than mere publications, citations, data or statistics; they can be seen as a weave of interactions capable of contributing to equality and a more fair distribution of what already belongs to humanity. These three reflections recommend a revision of the guidelines orienting current research; perhaps we could cultivate or begin the reflection within our own institutions. Not forgetting this is a collective effort. In practical terms, the work of an editor of academic journals requires being an active part of this collective conscious.

The profession of freedom of expression and collective conscious

The profession of an editor of academic journals demands a collective conscious, one that brings together a group of voices and ideas, yet avoids complacency. Two affinities characterize this profession: cultivating dialogue that allows ideas to germinate and the highest value, liberty. Even at this axiological junction, many of its battles are fought and settled in the silence of the computer screen. The profession becomes a silent witness inhabiting the interstices of the time of publication—which is not just the time or hours spent in the office—and the weight of endless hours dedicated to the incomprehensible prose of this or that author, or the irrefutable clarity of ideas that shine on their own. The desperation caused by uncountable details becomes sudden joy, an inexplicable enthusiasm upon seeing the collective work—which is really every issue—and every one of the pieces in its place. The journals and their issues become a collective victory resulting from countless attempts, rewritings, in the rush towards publication. Thus once they are in the reader's hands, they are no longer ours; they reaffirm their collective nature and their possibility to exist as a common good for humanity.

This image of the editorial work needed for the publication of academic journals is not so distant from the history of science itself. Heirs to a tradition of scientific publications, current journals face one of the greatest possibilities to reach more people through digital mechanisms of databases, indexes and archives, among others. But at the same time, this digital possibility tends to measure and quantify even the unquantifiable; it becomes a latent risk for the future of academic journals. This risk is also present behind something even more important: the development and focus of research and the generation of knowledge for the future of human well-being.

The need to rethink the future of academic journals implies observing them critically as a collective that will grow through open access. In this collective nature, the editor is nourished by all who participate, but also has tasks that represent challenges, such as avoiding a perspective that has been diluted or obscured by pressure—produced by the race for acquiring and sustaining a place in indexes—or the constant worry about resources to finance publications. However, a challenge that has grown exponentially is the avalanche of articles by researchers desperate to publish—in large part due to the pressure occasioned by jury committees, grants, research systems, and so forth, which will determine where one should publish and how this should be measured. Though this ensures a cycle of productive determination on behalf of the researcher, it does not necessarily mean a higher quality of content or relevance of research.

Something that should not be forgotten is that the profession of an editor is one of freedom; this should not mean the freedom to choose which jury committee to please, but rather the freedom of verbal expression. At the very heart of this freedom, the editor has the opportunity to exercise a watchful awareness, not aligned with miserly interests—of a group, of marketing, or of trends—but, in the case of academic journals, constructed from an ethic that safeguards the knowledge generated not for a personal, but collective benefit. This ethic and collective good are at constant risk: the risk of determining which research to support and which not. The future risk for journals lies in determining what research matters and what interests will be taken into account.

This creates a mechanism, which is ultimately a cycle of production adjusted to specific interests, determining what is published, how much it will cost for universities to access the information, which journals will grant the classification of scientific knowledge and how the number of citations will be tracked or how to speed up the route to creating a new patent. But the cycle of determination does not end there.

That a small group of committees and publications determine what is science and what topics are pertinent—or should be pertinent—to governments has an impact on the financing mechanisms and amounts to fund research that, consequently, will determine among whom any benefits will be distributed; yet this distribution is not based on who needs the benefits most, but who can pay for them. The collective that is constructing scientific journals today should consider this enormous risk, especially amidst the often-ignored frenzy of corporate guidelines for the management and visibility of knowledge. Investment in research will not be free to follow scientific perspectives, in the widest humanistic sense to improve today's societies, but it may lean towards other interests, dissolving objectivity: "In order to function correctly, scientists must maintain a position of impartiality and objectivity" (Koepsell and Ruiz de Chávez, 2015, p. 129).

If the profession of the editor implies freedom of verbal expression and a watchful awareness of the ethics that sustain academic traditions, then each editor has a relevant role in the future of journals, not as a sole hero or leader, but as a collective conscious. To a certain extent, the growth of a country's scientific journals reflects the focus of its policies for the development of science and technology; we are witnessing some recent efforts in Latin America to improve the impact and development of its scientific journals. Governmental efforts will need to be sustained because consolidation requires maturity of the management mechanisms, the acknowledgment of a culture that supports scientific publications and continued economic support. However, the Latin American case, while demonstrating great efforts, is also at risk because it faces budget cuts in science and technology in

2017, for example in Mexico, Brazil and Costa Rica. In Mexico this risk can be understood within the context of reductions in federal resources designated to research, education, science and technology; the efforts from the past years will be jeopardized by the instability generated by reductions in the resources of these truly critical areas for the development of a country in this context (*La Jornada*, November 21, 2016).

Why should we consider the future of well-being along with academic journals?

Academic publications in general are an important step in ensuring the social relevance of knowledge and communicating the collective benefits of human intelligence. However, human intelligence itself has constructed, paradoxically, the very conditions that jeopardize it through development and investment in research to make a non-human super intelligence reality (Bostrom, 2014). Though this risk is very specific and seemingly distant from the topic of academic journals, it is also ubiquitous and will have an impact on different aspects of life as we know it today, therefore compromising the future of humanity itself. More specifically, I recommend asking, "What is the role of academic journals—whether research-based, scientific or popular—in the construction of the future risks or benefits for humanity?" The publication of research results has a direct impact on the technological developments that are today a challenge for our species. There are two examples: the development of artificial intelligence and the way in which information and communication technologies have transformed and will continue to transform our interaction with others. In the publication of journals we have already witnessed these factors in different realms of editorial management, and we can thus ask ourselves, "How do we envision academic journals in the coming decades?" We are probably working, without even realizing it, towards a point in which editorial management and the processes involved will be carried out by a super intelligence capable of determining what is research, what should be published and what will be measureable with what economic value. Do we really have reasons to worry?

There is considerable economic investment in artificial intelligence and ITC in some countries; and in other regions the investment is principally directed at purchasing these developments and their applications. The projected growth of both fields, artificial intelligence and ITC, for the coming decades occupies an important place in the investment in, sales and purchase of technology that, consequently, will exacerbate the economic dependency of some countries. But why should we mention these two fields and the relation they have with the future of academic

journals? Huw Price, Director of the Centre for the Study of Existential Risk, expresses one of the concerns that will need to be considered, even in academic publication systems:

If we are to develop machines that think, ensuring that they are safe and beneficial is one of the great intellectual and practical challenges of this century. And we must face it together —the issue is far too large and crucial to be tackled by any individual institution, corporation or nation. Our grandchildren, or their grandchildren, are likely to be living in a different era, perhaps more Machinocene than Antropocene. (Price, H., Now it's time to prepare for the Machinocene, 2016)

The concern for the future risks faced by humanity—risks being created by technological developments and artificial intelligence—has already been both directly and indirectly expressed in scientific literature. Our task in the Latin American academic journals will also be to convey these reflections to the research-based systems of administration, publication and communication of knowledge. This concern requires clarity on behalf of the different actors that make up the systems of publishing and communicating knowledge. In this way, certain questions will need to be considered: what human values implicit in the generation and publication of scientific knowledge might be jeopardized by the development of a super intelligence and the growing presence of ITC in the processes of scientific publication? If we think about this in the context of academic publication in the coming decades, what criteria can ensure that published research contributes to an inclusive well-being, fair and ethically oriented, where a human being decides on behalf of humanity and not a super intelligence with greater autonomy and no ethical limits?

The question can perhaps be understood as a reflection ahead of its time, but it is not. Today we have information and evidence provided today by research centers at Cambridge and Oxford University—for example the Centre for the Study of Existential Risk, the Future of Humanity Institute and the recent Leverhulme Centre for the Future of Intelligence—in new fields with interdisciplinary focuses on the future of humanity, existential risk and the future of intelligence. We can also say that whatever is capable of shaping a bright future for humanity is also capable of jeopardizing its existence as we know it today. Thus, the question from the previous paragraph has its foundations; it is not fiction, nor is it irrelevant to the research that is taking place in today's universities. A comprehensive approach to these risks is found in the research work of Nick Bostrom (2013), or in *Superintelligence: Paths, Dangers, Strategies*, (2014). I will close with another question. In the current context of academic journals and the growth of autonomy of information systems and the capacity

for monitoring the measurable, what lessons can we learn from other areas where the decisions, innovations, technological development and research have already traced the possible risks, due to the increase of the autonomy of intelligent systems for management and information?

References

Alperin, P. (2015) *The Public Impact of Latin America's Approach to Open Access*. PhD Dissertation submitted to the Graduate School of Education of Stanford University, USA: Stanford University.

Bostrom, N. (2013) Existential risk prevention as global priority. *Global Policy*, 4(1), 15-31.

Bostrom, N. (2014) *Superintelligence: Paths, Dangers, Strategies*. Oxford, RU: Oxford University Press.

Floridi, L., and Taddeo, M. (eds.) (2014) *The Ethics of Information Warfare*. Law, Governance and Technology Series, Volume 14. Switzerland: Springer.

Floridi, L. (2015) Hiperhistoria, el surgimiento de los sistemas multiagente (SMA) y el diseño de una infraética. En Martínez Ruiz, X. (Coord.) *Infoesfera*. México: IPN.

Koepsell, D. R., and Ruiz de Chávez, M. H., (2015) Ética en la investigación, Integridad Científica. México: Comisión Nacional de Bioética y Secretaría de Salud.

Gil Antón, M. (2014). Los nuevos escenarios de la educación en México y el papel de las revistas científicas especializadas. *Perfiles Educativos*, 36(143), 196-203.

Olivares Alonso, E. (2016, noviembre 21). Tremendo y lamentable, recorte al sector científico. *La Jornada*. P. 42. Consulted: <http://www.jornada.unam.mx/2016/11/21/sociedad/042n3soc>

Price, H., (2016) Now it's time to prepare for the Machinocene, *Aeon Ideas*. Consulted: <https://aeon.co/ideas/now-it-s-time-to-prepare-for-the-machinocene>

Turilli, M., y Floridi, L. (2009). The Ethics of Information Transparency. *Ethics and Information Technology*, 11(2), 105-112.