

Research Article

Visibility and Quality in Spanish-Language Latin American Scholarly Publishing

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Abstract

This article reports the results of a study of scholarly publishing in Spanish-speaking Latin America today. It draws on 230 surveys on journal publishing and nine journal publishing workshops, as well as on interviews and additional meetings conducted in 2007 and 2008 with a wide range of stakeholders in scholarly publishing (including editors, university publishers, and national science foundation directors) from 11 Latin American countries. The results suggest that the principal challenges faced by those involved in scholarly publishing in Latin America are establishing and maintaining the long-term sustainability of the journals, and achieving greater visibility for, and improving the quality of, published work, with an eye to increasing the contribution of these publications in ways that may yet be able to balance both regional and global interests.

1. Introduction

The new political economy has only made the shortcomings of the public university [in Latin America] more visible and remedies more urgent, prompting governments and development agencies, and some universities themselves, to take corrective action. And in the search for a new model to replace the old one, the U.S. model of the research university offers itself with strong appeal. (Bernasconi, 2007, p. 43)

Bernasconi's comment illustrates a tendency that is quite extended in the region.¹ Criticisms of the Latin American university, particularly public ones, flow from both the political left and right. While some are concerned with privatization and commercialization of campuses, others complain about the unresponsiveness of academic institutions to social needs, market incentives, and technological changes (Geiger, 2004; Newman et al., 2004; Richmond, 2006). One of the focal points in this debate is the state of scholarly publishing. Discussions are multiple and varied, ranging from giving priority to the production and dissemination of scientific knowledge by universities within their own national and regional locus to increasing the participation of the region within the global and U.S.-centric research network. Related topics also include the language of pub-

1. Other issues raised by Bernasconi are "massification, politicization, irrelevance to economic development, and bad management" (2007, p. 7). An alternative perspective is found in the Declaration of the Regional Conference on Higher Education in Latin America and the Caribbean: "Higher education is a social public good, a universal human right, and a responsibility of States. This is the conviction and the basis for the strategic role that it should play in the processes of sustainable development of the countries of the region" (CRES, 2008).

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lication, standards for peer-reviewing, questions of institutional levels of support, and the extent of journal indexing.

This article addresses these issues as part of a study of scholarly publishing in Spanish-speaking Latin America today. It draws on 230 surveys on journal publishing, nine journal publishing workshops, and interviews and additional meetings conducted in 2007 and 2008 with a wide range of stakeholders in scholarly publishing (including editors, university publishers, and national science foundation directors) from 11 Latin American countries. Taken together, the results suggest that the principal challenges faced by those involved in scholarly publishing in Latin America are establishing and maintaining the long-term sustainability of the journals, and achieving greater visibility for, and improving the quality of, published work, with an eye to increasing the contribution of these publications in ways that may yet be able to balance both regional and global interests.

If in the past, the Latin American university (LAU) was considered a distinctive, prestigious, and even sacred institution, often called the highest secular temple of knowledge (Porter, 2005), it is often regarded today as just another organization subject to many of the same forces of change—globalization, marketization, democratization, digitalization—bearing down on all 21st century organizations. For some time, within the LAU community, researchers and their scientific networks have been divided in their affinities around just such issues as regional and global interests (Fernández-Maldonado, 2001).² Higher education is seeing expanded enrollments (including students from pre-

viously excluded social sectors); expansion into new fields of study; extension of graduate programs; national accreditation and evaluation practices; incorporation of ICT delivery formats and a great expansion in ICT use;³ and finally, and of most relevance to this study, new standards for faculty appointments, including not only advanced degrees and a record of research grants, but increased pressure on scholarly publication (Amaral & Magalhães, 2003; Tunnermann, 2007).

This last point, on scholarly productivity, has drawn a great deal of attention because of the relatively minor role that the faculties of LAUs are playing in the global production of scientific knowledge.⁴ While Latin America accounts for 8% of the world's population, the region's scientific sector produces 1.6% of the world's academic publications, 0.2% of the patents, and 0.2% of what might be regarded as examples of applied knowledge (Guarda, 2002).

This study was designed to understand, within Latin America, the challenges and possibilities of greater potential for scholarly productivity (amid the increased emphasis on scholarly productivity within higher educational, generally); of internal debates about purpose, community, and service in the LAU; and of the development of new online technologies for scholarly publishing. This study intends to help ascertain the current state of scholarly publishing in Spanish-speaking Latin America, including editorial practices and funding models, with a focus on journal editors from across the disciplines and the continent.⁵ It has considered the potential for online publishing models. The goal of this research is to determine how this critical piece in the scholarly

2. In Boaventura Sousa Santos' much-debated analysis (2005), the university is facing three fundamental crises: a crisis of hegemony, because it is no longer the only institution to offer the highest levels of knowledge; a crisis of legitimacy, because it is no longer consensually accepted as the only provider of the highest levels of education; and an institutional crisis, because it cannot assure its own reproduction.

3. If this online revolution in communication has affected one area decisively, it has been the production, publication, and dissemination of research through scholarly journals (Borgman, 2007).

4. The National Science Board, *S&E Indicators* (NSF, 2004), concludes that the levels of scientific production and the regional participation among the regions of the world are quite unbalanced. Between 1988 and 2001, 7.9 million articles were published: United States and Canada (38.62%), Europe (33.9%), Asia (13.91%), ECA (6.69%), South Pacific (2.7%), Latin America (1.77%), Middle East and North Africa (1.67%), Sub-Saharan Africa (0.74%).

5. A decision was made not to collect data in Brazil despite, or rather because of, the country's leadership in scholarly publishing. At the time of this study, Instituto Brasileiro de Informação em Ciência e Tecnologia (IBICT) in Brasília had been conducting roughly 20 online scholarly publishing workshops around the country. The Public Knowledge Project had been working with IBICT for some time, and there were already hundreds of Brazilian journals using Open Journal Systems and other systems. This was decidedly not the case in the rest of Latin America. Thus given the limited funding that we had to support this study, we decided to hold the workshops in Spanish-speaking Latin America.

production and impact puzzle—the peer-reviewed journal—might further contribute and strengthen its role in increasing the exchange and circulation of knowledge produced within Latin America.

This article begins with a brief overview of the general transformation of LAUs, which serves to contextualize the findings of an editor survey and a series of interviews conducted with a wide range of key players in scholarly publishing. Section 3 presents the sample and research method used in this project, and section 4 presents and discusses the results that were obtained. The article concludes with a summary of key findings and implications for research in the field of scholarly publication in the region.

2. Brief Notes About Universities in Latin America

Numerous, and often contradictory, analyses of the state and fate of LAUs percolate in professional journals, trade books, and public discourse (Fischman, 2008; López Segrera, 2007; Malagón Plata, 2008). Although this discussion varies dramatically across the different countries and higher education systems, trends and patterns emerge from a comparative approach (Altbach, 2007; Didriksson, 2007). Where most commentators do seem to agree is that Latin American universities are rapidly diverging from an ideal-type model that emerged after the Córdoba movement of 1918 and purportedly flourished in the post-World War II period, often nostalgically referred to as the “golden age” (Altbach & Balán, 2007; Porter, 2005; Santos, 2005).

Very significant changes in the higher education systems in this region came after the Second World War, when two elements became relevant: the influence of the university models developed in the United States and a first wave of emergence and consolidation of private universities (Levy, 1997). In most countries, however, the public university was the dominant model, matriculating most of the students in the region. Public universities did not grow merely by state fiat. Much of the growth came from demands made by their respective national populations. During the 1960s, the pressures for university expansion came not only from the Latin American states, for example, but also from grassroots protests by students and political activists. But the result was the same: “A large number of women, elder

and poorer persons . . . started to flood the universities which were until recently all male, elite institutions of the privileged young” (Schwartzman, 1997, p. 45). To many, the most striking accomplishment of Latin American universities in the last half century was the rapid growth in enrollment from half a million students to 7 million in the last three decades (Fischman & Stromquist, 2004). Correspondingly, the kind of institutions arising to meet this volume of students diversified rapidly (Levy, 1997, p. 3).

In Latin America, the “development” university of the 1960s–1970s was giving way to the “market” university of the 1980s–1990s. Writing of Latin America in the late 1990s, for example, Schwartzman observes:

In very broad terms, many more people have access to education now, the traditional curricula were opened to new alternatives and experimentation, and in some countries and places, full-time teaching and research were introduced for the first time in higher education. The general feeling, however, is of deterioration and loss of quality, and an idealization of the past. (1997, pp. 46–47)

Levy, too, notes the simultaneous achievements of, and “keen disappointment” in, Latin American higher education in recent years:

The incredible development optimism generated by higher education back in the 1950s and 1960s has faded. Both heady international assistance programs and idealistic indigenous reform movements seem adventures from bygone eras. Judged by its personnel, resources, and structures, Latin American higher education falls far short of where it had been projected to be. (1997, pp. 3–4)

Across the varied national contexts, the promises offered by LAUs seemed to expand geometrically. In this earlier period, public research universities were almost completely supported by national governments, and they were charged with distributing or making “public” certain goods that were considered socially relevant and associated with the preservation, pursuit, production, and distribution of valuable knowledge. LAUs became “redemptive” institutions, expected to be able to resolve or mediate all manner of social problems—but in social, economic, and political contexts in which the universities had very little control. As we noted before,

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rightly or wrongly, the disappointment with the LAUs was also extreme, particularly within the universities that couldn't provide effective answers to incorporate many of their best researchers.⁶ This sense of LAUs operating in a new environment "outside of their control" is echoed again and again in contemporary higher education discourse (Brunner & Briones, 1996; Guarda, 2002).

Much of this sense stems from a bleak funding situation, combined with a critique of what LAUs "deliver," that has prompted state-supported institutions, as well as students, to turn to private solutions. In Latin America, for example, a tide of privatization has undercut the prominent role of the national universities and made questions about access to, and quality of, higher education more vexing. As Tyler et al. write, "Not long ago, key questions in Latin American higher education could be addressed without sustained reference to a private-public distinction." Of 20 countries, they note, only two had private sectors that predated the 20th century, and only four had private sectors reaching back to 1940. But by the mid 1970s, all but two nations had private sectors. Overall, from 1955 to 1975, the "breadth of privatization [was] impressive" (Tyler et al., 1997, pp. 18–19).

This rapid expansion of the higher education sector (or the idea that a rapid expansion was needed), coupled with the vast transformations associated with the information and telecommunication sectors, coincided with a shift in the notion about the function and size of the state, and with increased pressure to expand participation of the private sector in all areas. Indeed, private university expansion in Latin America was also accompanied by restrictions in financial support for public institutions, in tune with the logic of neoliberal models of higher

education (Fischman, Ball, & Gvirtz, 2003; Rhoads & Torres, 2006).⁷

The transformation of the LAU during the last three decades has been significant and well-documented (Didriksson, 2007; Gentili & Levy, 2005; Malagón Plata, 2008; López Segre, 2007; Fischman, 2008). Most of the authors point to the combination of structural changes that were instituted in response to global and local demands and complaints, which were coming from multiple sectors and responding to different needs. Among the most significant changes the higher education sector implemented were the following: expanded enrollments; acceptance of social sectors previously excluded from the universities; expansion of fields of study; expansion of graduate programs (MAs, MBAs, and PhDs); implementation of accreditation and national evaluation practices; incorporation of new forms of delivery of classes (TV, hybrid, online); great expansion in the use of computers; development of new criteria for entering into the ranks of academia, such as requiring advanced degrees; and a strong record of grants and publications (Amaral & Magalhães, 2003; Tunnermann, 2007).

The consequences of these changes provide the contextual parameters for understanding the motivation of pursuing this research project, because, as Borgman notes:

This is an opportune moment to examine the nature of scholarship in the digital age. Enough experience exists to identify both the opportunities and the threats arising from changes in the technology and policy associated with distributed access to information. General plans are in place for building a technical framework to support information-intensive, data-intensive, distributed, multidisciplinary research and learning. New social and legal frameworks to facilitate scholarship are

6. In addition, although it is difficult to know exactly how many, it is estimated that significant numbers of well-trained Latin American scholars live and work outside their countries. This situation disproportionately affects the smaller countries, but it is also relevant in Brazil, Mexico, Argentina, Colombia, Venezuela, and Peru. "Close to 80% of college educated people born in Jamaica, Haiti, Guyana, Belize, [and] Grenada are currently living in the U.S. The rate is also relatively high for some medium-sized countries in Central America. Around 30% of the college educated from El Salvador, Guatemala, Honduras, Nicaragua, and Panama are also in the U.S. The levels are much lower for larger and wealthier countries" (Özden, 2005, p. 12).

7. These models were particularly championed by empowered supranational organizations, such as the International Monetary Fund and the World Bank, which were treating higher education more like an individual benefit than a social good or an agent of social change by the 1980s. Such organizations emphatically defended, and in many cases directly conditioned governments to accept, the notion that the "rate of return" of higher education was lower than the one for elementary education. These arguments were also voiced by local groups that saw benefits in those policies. The combined pressures of international and local actors proved to be one of the most significant elements in the policy shifts for the higher education sector (Puiggrós, 1996; Rodríguez-Gómez & Alcántara, 2003).

Table 1. Date, City, Sponsor, and Number of Participants at the OJS Workshops.

Date	City	Sponsor	Participants
6/13/2007	Buenos Aires, Argentina	CAICYT-CLACSO	70
10/8/2007	Monterrey, Mexico	ICTEIN	15
10/28/2007	Quito, Ecuador	FLACSO	70
11/11/2007	Bogotá, Colombia	COLCIENCIAS-Javeriana	150
3/13/2008	Montevideo, Uruguay	Universidad de la República	40
4/14–4/16/2008	Toluca, México	RedALyC	200
5/27/2008	San José, Costa Rica	Universidad de Costa Rica	50
6/11–6/16/2008	Mérida, Venezuela	Universidad de los Andes	70
6/25–6/27/2008	Havana, Cuba	IDICT- RedALyC	40

being constructed in response to these opportunities and threats. (2007, pp. 261–262)

3. Study Sample and Research Method

The study is based on nine workshops on scholarly publishing in the digital age that were held between November 2007 and June 2008 in various Latin American countries (Table 1). The workshops were developed by the Public Knowledge Project, in cooperation with local universities and the host countries' national science foundations, or during professional meetings.⁸ Editors, journal staff, librarians, and other interested parties were invited to attend a workshop that would explain and demonstrate developments in online publishing systems for scholarly journals, including the Public Knowledge Project's open source (free) software called Open Journal Systems (OJS), which is available in Spanish and Portuguese.⁹

The initial workshop was organized in Buenos Aires through a collaboration with the Argentinean Science Council (CAICYT) and the Latin American Council of Social Sciences (CLACSO). CAICYT and CLACSO sent invitations through their mailing lists, establishing a limit of 70 participants on a first-come, first-served basis. The second workshop

was held in Monterrey, Mexico, as part of a pre-workshop series for the International Conference on Technology and Educational Innovation (ICTEIN). The 15 participants were able to register while registering for the main conference events. The third event was a short presentation made during a meeting of 70 editors gathered in Quito during a conference celebrating the 50th anniversary of the Latin American Social Sciences School (FLACSO). The fourth and largest of the Latin American PKP workshops was held in Bogotá. It was organized in conjunction with the Universidad Nacional, the Universidad Javeriana, and the Universidad de la Sabana, and was sponsored by Colciencias (the Colombian government's science agency). A total of 150 journal staffers gathered for a day-long workshop with presentations from PKP, Scientific Electronic Library Online (SciELO), and several well-established Colombian journals. The following workshop was held in Montevideo and organized in conjunction with the Universidad de la República. Invitations to participate were sent through university mailing lists and drew 40 participants. PKP received an invitation to hold its sixth workshop during an international conference in celebration of the fifth anniversary of Red de Revistas Científicas de América Latina y el Caribe

8. In the interest of full disclosure, each of the authors is affiliated with the Public Knowledge Project (PKP), which used a Mellon Award for Technology Collaboration (from the Andrew W. Mellon Foundation) to conduct this study. The Public Knowledge Project is a research project at Stanford University, Simon Fraser University, University of British Columbia, and Arizona State University.

9. As was made clear to the workshop participants, there was an inescapable element of what might be termed project promotion involved in having the Public Knowledge Project host the workshops, demonstrate its (free) software, and gather data on the current state of publishing. We see this as the inherent risk and responsibility of a research and development project. In hoping to develop new infrastructure systems that will support scholarly communication, one needs to gather data on current practices and issues and share the results as widely as possible. But given the unavoidable conflict of interest, we would ask readers, as we asked workshop participants, to judge what follows accordingly.

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(RedALyC). Conference invitations were extended to editors of the 500+ journals hosted at RedALyC, and more than 200 editors from 12 countries attended. The following workshop was organized and held at the University of Costa Rica in San José. Invitations were sent to all the universities in Costa Rica, resulting in approximately 50 attendees. The following workshop was held in Mérida, Venezuela, and organized by the Universidad de los Andes. This event was open to the public, and registrations could be made online, resulting in approximately 70 participants. The final event was held in Havana, in conjunction with the science and technology institute of Cuba (IDICT) and RedALyC. This event brought approximately 40 participants from around Cuba who were sponsored by the IDICT.¹⁰

The research concept employed with this study was to trade information with the participants; that is, to offer to increase their knowledge of online systems in exchange for data about the current state of publishing. The workshops were used not only to inform participants, but also to gather data through discussions, a survey, and follow-up interviews, all on current publishing practices and issues. While this meant that the sample participating in this study was limited to those involved in scholarly publishing that have expressed an interest in the potential contribution of online technologies, the turnout of roughly 50 participants at each workshop was indicative of the level of interest in these technologies.

Editors, researchers, research assistants, professors, information specialists, serials and periodicals coordinators, dissemination coordinators, technical coordinators, and institute directors attended the workshops. The workshops typically lasted four hours, during which time there were presentations on online publishing processes, on moving print journals online, and on the online journal management software OJS. Participants were actively encouraged to interact, and lively discussions drew out their preoccupations and doubts about current and pending issues for journals. Before completion of the workshop, participants were handed a survey on current journal practices with questions on journal operations, authors and readers, editorial processes, and use of technologies.

Table 2. Survey Completion by Country of Respondents (N=230).

Country	Respondents
Argentina	30
Chile	7
Colombia	29
Costa Rica	34
Cuba	36
Guatemala	1
Mexico	32
Nicaragua	1
Uruguay	3
Puerto Rico (USA)	3
Venezuela	54
Total	230

The response rate varied by event, but the 230 responses collected represent 209 journals from across the disciplines, among them social science (78), technology (55), science (14), arts and literature (8), and multidisciplinary journals (33). When there were multiple respondents from the same journal, their responses were always interpreted as complementary. Of the 230 respondents, 85 (37%) were men and 145 (63%) were women. Of these, only 4.0% did not hold a university degree, 37.7% had one degree, 26.9% had a master's degree, and 31.4% had a doctorate degree. The highest degree obtained by respondents varied significantly by country, with Argentina having the highest number of editors with only one degree (*Licenciatura*) (57.1%), and with Venezuela having the highest number of master's and PhD graduates (83.0%).¹¹

4. Results

4.1. Journal Ownership and Support

After conversations with staff members at universities in Bogotá, Buenos Aires, Santiago, Panama City, Mérida (Venezuela), Montevideo, San José (Costa Rica), Guadalajara and Mexico City (Mexico), among others, it seems that there is institutional will and support for strengthening scholarly communications in Spanish-speaking Latin America, stemming from

10. Further information about the workshops is available at pkp.sfu.ca/español

11. Guatemala, Nicaragua, Puerto Rico, and Uruguay were not sufficiently sampled to give statistically significant percentages.

Table 3. Journal Ownership, Allowing for More Than One Owner per Journal (N=206).

Ownership	Journals	Percent
University	150	72.8%
University	60	29.1%
Department/faculty	60	29.1%
Research group	30	14.6%
Government	26	12.6%
Professional association	12	5.8%
Independent research group	7	3.4%
Other	11	5.3%
Hospital	2	1.0%
Museum	2	1.0%
Other	7	3.4%

an earnest desire to improve the social and academic standing of the universities. Critical to this interest is the fact that the universities are the largest single "owners" of the journals, possessing 73% of the titles represented in this sample (Table 3). Professional associations, at 6%, represent a much smaller proportion than in the Global North, where they account for 40% of the titles. The complete absence of commercially published titles, at least in this sample, needs to be compared to the 60% share of the market that they have in the North, with some overlap with the societies on whose behalf they publish journals (Crow, 2005). It speaks to the distinctive patronage market in Latin America for scholarly journals, with universities supplemented by government, museums, and hospitals.

In terms of funding, not surprisingly then, 86% of the titles receive university support, and more than 50% get all their funds from universities (see Table 4). In contrast, only 23.1% of the journals drew some part of their financial support from subscriptions, along with an additional 2.7% from pay-per-view fees. The journals depend on institutional patronage, and they are not treated by scholarly society or commercial publishers as a means of creating a surplus or profit.

In addition, at least three of those we interviewed held that journal production in Latin America is done with little or no money changing hands. Holdom (2005) argues that this lack of a commercial publishing industry has served as a catalyst for the growth of online publishing initiatives. Whatever the reason, open access publishing in Latin America has

Table 4. One or More Sources of Journal Financial Support (N=186).

Type of Support	Journals	Percent
University support	160	86.0%
Subscriptions	43	23.1%
Sponsors	38	20.4%
Volunteer support	17	9.1%
Pay-per-view fees	5	2.7%

Table 5. Nature of Online Presence (N=202).

Nature of Presence	Journals	Percent
No online presence	51	25.25%
Online presence	151	74.75%
Full-text open access	127	62.87%
Table of contents/abstracts only	13	5.95%
Full-text paid access only	6	2.97%
No content online	6	2.97%

taken off in a significant way (Alperin, Fischman, & Willinsky, 2008), although it has not necessarily been carefully contemplated or planned (Terra-Figari, 2008; Villanueva, 2006). Table 5 illustrates the importance of online publishing in our sample, with 74.75% (151) of the journals having an online presence, and the majority (127) giving full-text open access. The publications surveyed have an average of seven years of online presence.

As higher education itself is increasingly offered as a commodity in a globalized market (Marginson, 2006), and as universities in the public sector are under pressure from the rise of for-profit private universities (Santos, 2005; Gentili & Levy, 2005), it's an interesting contrast that the knowledge output from these universities is being traded on a global scale, thanks to the Internet, in a non-commercialized way. This is partly due to the desire of those publishing in Latin America to be read and quoted outside the region. This is a market they could not hope to penetrate if financial barriers were added to a system already plagued by the challenges of language, a lack of research and institutional funding, and a lack of adequate incentives for publishing locally. Open access (OA) publishing, which makes journal content freely available to readers of the online edition, has provided a path to the global research community.

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This model works well with the institutional support that has long underwritten Latin American publishing, providing a much larger impact at very little increase in cost. This is where the PKP Project has attempted to come into the picture by developing Open Journal Systems for managing and publishing journals online. OJS is used by close to 900 Latin American journals, principally in Brazil.

Although tools such as OJS are helping to lower publishing costs, even publications produced with free software have expenses. At some point, as scholarly productivity increases (more on this below), Latin American institutions will have to subsidize research that is then given away to those who can far better afford to pay for this work than its sponsors. In addition, many of the libraries we visited continue to employ a journal-swapping system among institutionally sponsored publications to maximize the number of titles they offer their users (Universidad de Buenos Aires in Argentina, Pontificia Universidad Javeriana in Colombia, Universidad de Costa Rica, and Universidad de la República in Uruguay, among others). In more than one instance, librarians expressed concerns about their institutions' journals going OA because of a fear of losing this valuable currency.¹²

4.2. Scholarly Productivity and Journal Stability

As expected, one trend that we identified is a general increase in the quantity of scholarly production, at least as experienced by this sample of journals.¹³ This would appear to be in response, at least in part, to pressures that are mounting throughout the region, urging faculty to both research and publish (Holdom, 2005; NSF, 2004). In our survey, we found that more than 90% of the journals were experiencing an increase in submissions. In light of the growth in the number of journals in the region, this finding only reinforces the sense of general growth in scholarly productivity (Babini & Smart, 2006; Johnson & Cano, 2008).

The growth in scholarly productivity further reflects the change in the LAU focus from being primarily teaching and "state-building" institutions

(Ordorika & Pusser, 2007) to a model closer to the "publish or perish" tradition of the American research university (Brunner & Peña, 2008). Publications are becoming the currency by which research funding is allocated. A recent World Bank research paper (Thorn & Soo, 2006) cites LAU examples in reporting that:

Competition based research funding is now widely used by national science and technology commissions in Latin America. In addition, many universities assign internal research funds based on open competition and peer review processes (Urzúa, 2002). The University of the Republic in Uruguay, for example, has set up a commission that allocates about 15% of funds for R&D on a competitive basis. One of the priorities is to fund projects fostering linkages to the productive sector. (Bértola et al., 2005)

At the same time, with the growth of titles, journals can disappear on a whim, or they can be subject to pauses and breaks in the publishing schedule (Babini & Smart, 2006). In our survey, we found that only 25 of 145 journals were up to date and publishing without interruptions, that 81 had just slightly out of date content (at most, one year of delay), and that 39 had not been updated since 2007 or earlier. Editors provided us with accounts of how faculty strikes, lack of funding, political strife, health issues, etc., prevented them from even publishing their journals. Of the journals sampled in this study, 40% had experienced pauses in publishing (Figure 1). Of these, 35% (14% of the total) cited financial constraints as the reason. Administrative or editorial issues and human resource deficits were also commonly cited, totaling 30% of those with breaks (12% of the total). These figures seem to indicate a systemic problem in the day-to-day operation of the journals that prevents Latin American publications from reaching full maturity. As noted, the regularity of the publishing cycle is one measure of quality assessed by indexes such as ISI Web of Science and SciELO. It would also have an effect on the ability to retain library and personal subscriptions.

12. But then, when sales are significant, university presses have found that the institutions would as soon take the revenue generated rather than allow it to be reinvested in the press (de Sagastizábal, Rubio, & González, 2006).

13. The number of science and engineering (S&E) articles credited to Latin American authors almost tripled in the 13-year period from 1988–2001, significantly outpacing authors from other developing regions in the world. The output of Latin American authors grew by about 200%, by far the highest rate of increase during the period. Published scientific articles by Latin American researchers rose from 5,600 in 1988 to 16,300 in 2001 (Science Daily, 2004).

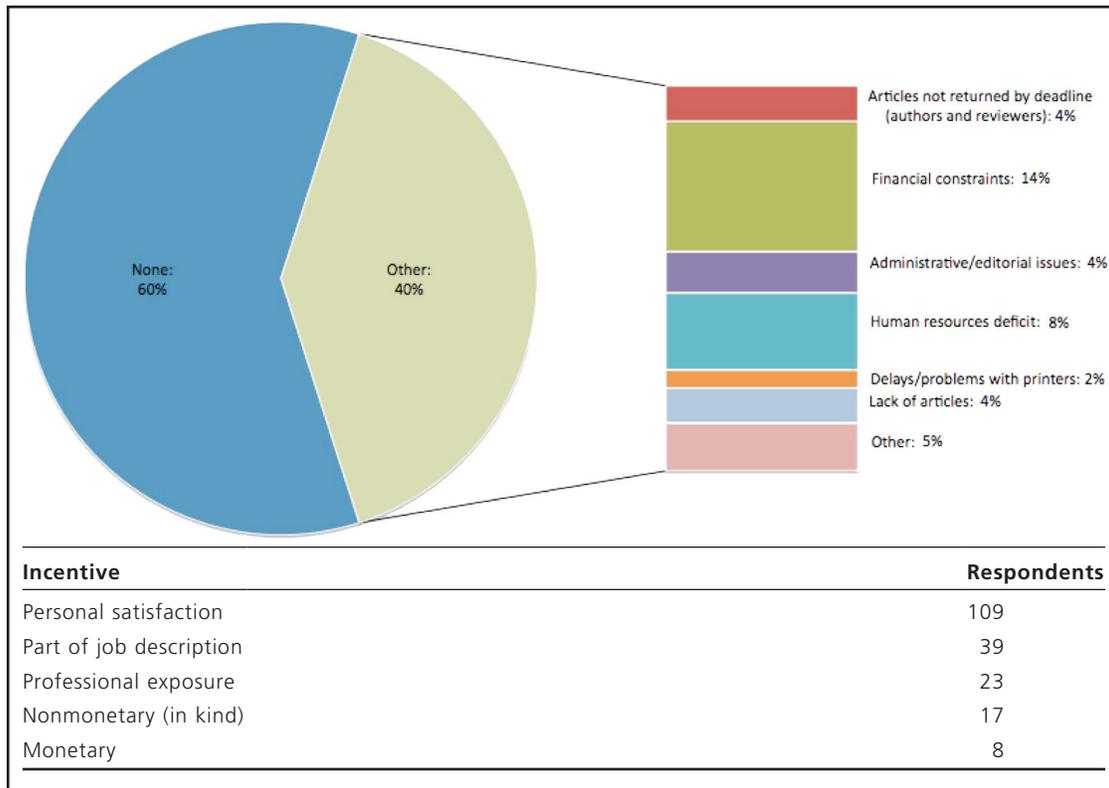


Figure 1. Reasons for Pauses or Breaks in the Journal's Publishing Schedule (N=159).

4.3. The Editing of the Journal

Being an Editor

Only 4% of the editors responding received a monetary incentive for their work, while 9% receive non-monetary incentives. An additional 20% have the editing task as part of their job description, leaving an overwhelming number (67%) who receive no incentive beyond professional exposure or their own personal satisfaction (Figure 2). We found that, although the incentives for authors to publish were many and varied, the incentives for editing were much less significant.

This begs the question of what motivates these editors to spend a portion of their time editing their journals (Figure 3). We found a high proportion of respondents (32%) who were motivated to edit in order to contribute to the development and dissemination of disciplinary knowledge, as well as an additional 9% who believed that their work provided a service to the community at large. These seemingly altruistic reasons are exemplified by the responses of

a participant from Costa Rica, who stated that he was motivated because “the dissemination of scientific research often offers alternatives for changes in public policy for the benefit of the public” (#2, our translation), and of a participant from Uruguay, who stated that she edits in order to “stimulate research and its dissemination, exchange, and challenge [existing] knowledge, [and to] stimulate the formation of scientific networks” (#38, our translation).

We found that very few of those surveyed (16%) edited journals with the intention of benefiting personally. Of those who did publish for such reasons, several respondents candidly commented that they edited in order to publish their own work or that of their colleagues. A typical response in this group reads: “To show the world the research published in our university” (#154, Venezuela, our translation). In contrast, 27% state that they edit journals simply because they “like it” (#69, Mexico, our translation), or because it provides them “personal satisfaction”

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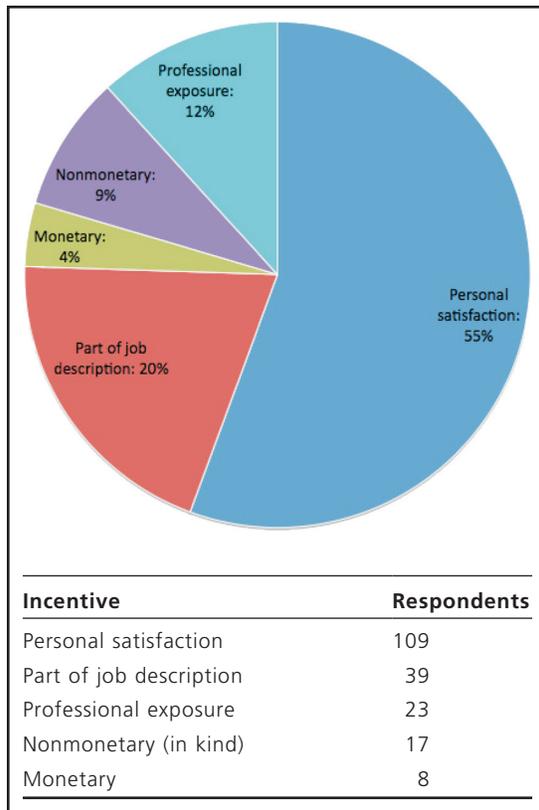


Figure 2. Incentives Received by Editors to Edit Their Journal (N=196).

(#159, Venezuela, our translation). These numbers suggest that many journals continue to be personal projects sustained by motivated individuals, much as they have been throughout the 20th century (Terra-Figari, 2008).

Journal Reviewers

Finding good peer reviewers to evaluate the articles submitted remains a consistent challenge for editors, with implications not only for the time it takes to publish, but also for the quality of the publication, as reviewers decide whether to publish an article, and invariably improve the articles that are published. Of the 209 journals represented in the survey, only nine stated that they experience no problems when trying to recruit reviewers (Table 6). More troubling is that 46 respondents felt there was a lack of adequate reviewers in some disciplines, and that 26 respondents identified a lack of interest and response on the part of potential reviewers (with respondents able to choose more than one reason).

Other concerns expressed about reviewers (e.g., too many time demands on reviewers and delays in return of manuscripts) are more typical, and do not speak as strongly to the critical point of improving and ensuring the quality of research articles. A key to strengthening scholarly publishing in Latin America, at least on this point, would be to increase the professional recognition, among institutions as well as faculty members, of the critical contribution that peer reviewing makes.

Editorial Decisions

When asked for the most frequently cited reasons for rejecting articles, journal editors (121 journals, or 64.0%) pointed to “poor quality” (Table 7) (and more than one could be selected). While this response provides no point of comparison (in terms of other regions or changes over time), it does suggest the prominence of the “quality” issue among Latin American journals. For example, one would expect that, among highly selective journals, a more prominent reason for rejection might be lack of originality, which only 11 respondents cited.

While we also discuss this issue in the next section, as it came up as a topic in the workshop discussions, we would simply reinforce the point that the quality of peer reviewing has the greatest potential for improving article quality, because this is where relevant experts pay close attention to the strengths and weaknesses of individual papers, providing direct and potentially helpful feedback on both substance and style, regardless of whether the article is accepted or rejected.

Also of concern among the set of journals represented here is the relatively high number of editors who mention plagiarism as a reason for rejecting articles (20 journals, or 10.6%). This does not imply how often this happens, of course, only that it does happen. On a more encouraging note, a substantial proportion of reasons for rejection—submission guidelines (26.5%), scope of journal (30.7%), poor grammar, and style (20.6%)—may well be remediable by the authors, rendering the submissions publishable in other venues. This, again, speaks to the potential contribution, if not responsibility, of editors and peer reviewers in educating authors about the standards and nature of journal publishing.

4.4. Journal Indexing

Across the workshops and the disciplines, there was agreement that Latindex (www.latindex.org), the Scientific Electronic Library Online (SciELO,

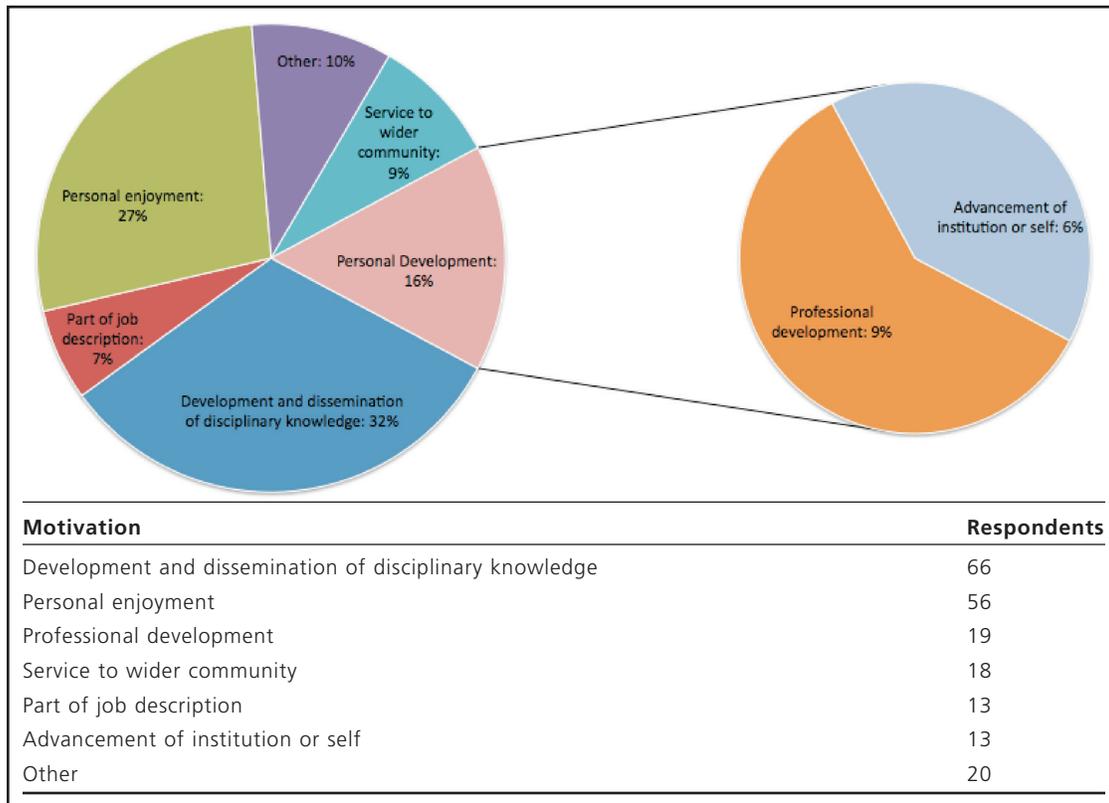


Figure 3. Motivations for the Editing of a Journal (N=205).

Table 6. One or More Challenges Identified by Respondents in Securing Reviewers (N=198).

Challenges	Respondents	Percentage
Too many time demands on reviewers	53	29.9%
Delays in return of manuscripts	48	27.1%
Some disciplines lack adequate reviewers	46	26.0%
Lack of interest/no response	36	20.3%
Not paid/insufficient remuneration	18	10.2%
Other	9	5.1%
None	9	5.1%

www.scielo.org), and the Red de Revistas Científicas de América Latina y el Caribe, España y Portugal (RedALyC, www.redalyc.org) are increasing the visibility of Latin America’s research for both a regional and an international audience. It is important to note that such agreement is quite remarkable,

because more than half of the journals in our survey are not included in any of these three indexes (Table 8). We interpret that the participants who agree on the importance of Latindex, SciELO, and RedALyC are expressing their interest to be included in those indexes.¹⁴

14. We should point out that the process for inclusion in Latindex differs greatly from the other two indexes. The aim of the Latindex is to include all journals in its directory, with no regard to journal quality. In contrast, SciELO and RedALyC are explicitly exclusive in their journal selection process, and they subject journals to an evaluation with differ-

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Table 7. One or More Reasons Given for Rejecting Submissions to the Journal (N=189).

Reason	Journals	Percentage
Poor overall quality of article	121	64.0%
Topic doesn't fit within scope of journal	58	30.7%
Noncompliance with submission guidelines	50	26.5%
Poor writing/grammar/style	39	20.6%
Plagiarism	20	10.6%
Doesn't contribute original knowledge/redundant	11	5.8%
Other	2	1.1%

Table 8. Indexing of Journals in Sample (N=202).

Journal Index	Journals
In SciELO	28
In RedALyC	15
In both Scielo and RedALyC	4
In Latindex	95
as well as SciELO and RedALyC	3
and not in SciELO nor RedALyC	67
and in either SciELO or RedALyC	28

Both SciELO and RedALyC have taken on a significant financial burden with public, university, and donor money to provide the service on which hundreds of journals rely for their online presence, certification of quality, and indexing of content. They both aim to provide legitimacy and visibility to Latin American research by providing a viable and locally relevant alternative to ISI Web of Science's Journal Citation Reports. The two organizations provide indexed full-text OA content of 550 and 614 journals, respectively, at the time of this article's writing. Both indexes also take advantage of an open access approach to the online editions of the journals they host, which ensures a wider distribution, as well as a greater impact.

While many in our survey applaud the successes

of both these portals, there is disagreement on how successful they are at avoiding what Altbach (2004) refers to as the "neo-colonialism of the 21st century." Some argue that the definitions of "quality" being applied by these groups are necessarily hegemonic in nature, as they aspire to so-called "international standards" with regard to peer review, editorial boards, publishing regularity, citation counts, index listings, and other measures. To some degree, SciELO, RedALyC, and Latindex provide an important point of regional balance to reports that the demand within the LAUs for increased research "exposure" is being addressed by Latin American scholars by submitting to ISI Web of Science-ranked journals (Licea de Arenas et al., 2003) and writing in English (Johnson & Cano, 2008).¹⁵ These regional

ent (but similar) criteria intended to assess quality. Latindex has another product, the Latindex Catalogue, for which journals need to meet certain criteria before they can be included. Our study did not measure journals' participation in the Latindex Catalogue.

15. "If Latin American researchers publish internationally, their students and other researchers in their own country may not read English well enough to understand the results of their work" (Johnson & Cano, 2008). It is difficult to know how many journals are doing this, but the tendency to publish articles in English (translations or originally written in English) is remarkable, though it is not a new phenomenon. Johnson reports that

Gibbs (1995) has noted the attraction power of most indigenous journals is low for elite Latin American authors who "vote with their feet" and write in English and submit papers for publication elsewhere, giving credence to Garfield

indexes, in association with the OA that both SciELO and RedALyC support, have been an important step toward improving the visibility and impact of the existing research in Latin America.

At the workshop held in Mexico in 2008, journal editors and information scientists were brought together. A number of the younger social sciences and humanities faculty members made a point of expressing how reluctant they were to have their careers as university professors tied to their performance in what they called “externally imposed” or “neocolonial models of science.” As an alternative to those models, participants suggested the need to incorporate alternative indicators to assess the extent that research had any impact beyond the R&D community. Some argued for the creation of a “social impact” index, which would include citations in non-peer-reviewed publications, newspapers, magazines, and trade materials.¹⁶ So while SciELO, RedALyC, and Latindex represent important steps in Latin American scholarly publishing, there is still more to be explored around the questions of measuring impact and reach, journal visibility, and language.

4.5. Journal Language

In many of the workshops in which we participated, the discussions were invariably linked to linguistic issues (to publish in English or Spanish) in relation to increasing readership and reach.¹⁷ In a workshop with representatives of 14 countries, the nearly 30

participants debated for many hours the merits of publishing in English or Spanish, as well as the extent to which it was good or bad to publish in electronic journals. At the end of the debate, a researcher with this project asked how many of the participants had published in a peer-reviewed journal in English (either in paper or in electronic format). The surprising answer—given the length and depth of the debate—was none, suggesting that this group, at least, had so far resisted this pressure and temptation.¹⁸

Our research suggests that, as happens in other regions (Buela Casal, 2004; Olssen & Peters, 2005), those who expressed the most vocal opposition to the “external” measures of quality tended to be faculty in the arts, social sciences, and humanities (rather than the sciences), as well as those working at smaller universities. It should be noted that, although we couldn’t verify the existence of an “official” policy requiring researchers to publish in English, the pressure that the editors are facing to have their journals indexed in ISI Web of Science or Scopus (the largest abstract and citation database of peer-reviewed literature) functions as a de facto official policy. Galvez Toro and Amezcua draw attention to how this language standard distorts the publishing process:

A mandate to publish in journals indexed by Thomson Scientific is wrong from every point of view (ethical, legal and strategic). It mistakes the

(1996) when he claimed that: if anything really significant is discovered (in a developing country) it gets into the mainstream journals. (2006, p. 302)

16. On impact factors in the Colombian context, F. Leon-Sarmiento, Bayona Prieto, and M. Leon-Samiento (2007), in one of the few journals published in Spanish that is indexed in ISI, note:

Latin American scientists are making tremendous efforts to conduct good-quality research worthy of being published internationally. However, Colciencias, an entity created to support this research in Colombia, introduced scientiometric evaluations which had been re-evaluated elsewhere some time ago, based on measurements of aspects such as the ill-termed “impact factor.” Even more serious is that the aforementioned government office is unaware that measures are based on debated mathematical principles, placing Colombian science at imminent risk of suffering from an academic self-induced damage of irreparable consequences. Therefore, an urgent restructuring of the way in which Colombia’s scientific production is to be evaluated is thus mandatory before these measures have a negative impact thereon.

17. The need to establish clear lines was also noted in the Regional Conference on Higher Education in Latin America and the Caribbean (CRS, 2008). See also Sanchez Diaz & Vega Valdez (2003); Irati & Packer (2001).

18. In March 2000, International Foundation for Science (IFS) surveyed 105 Mexican grantees about type and format of publication, language of publication, publication in mainstream journals, co-authorships, and author position. Many of the grantees were members of the Mexican National Researchers System (SNI). This report notes that, although these researchers published mostly in Spanish (58.5% of the total number of articles):

The publication trends show that IFS support contributed to publication output, to more frequent publication in English and more often in mainstream journals, thus increasing the international visibility of their work and contributing to the internationalization of Mexican science. (Russell et al., 2007)

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calculation methods with the data sources. Denying the validity of a citation in Spanish is not a careful attitude, and it increases the external dependence on product innovation and prevents new applications and technologies. (2006, our translation)

4.6. Journal Quality

Many of the issues discussed up to this point, from reviewing and editing to indexing and visibility, have to do with journal quality. Several of the faculty present in the workshops indicated that they consult the lists of top-tier journals when selecting a suitable journal for their submissions. The practice of choosing publications—which may seem very simple in other contexts—is acquiring new characteristics among faculty in the LAU. During a meeting in Mexico held in association with our workshop, a group of experienced researchers engaged in a vivid conversation about shifting dynamics in academic publication:

RE (senior researcher with numerous publications): Now we are all forced to send our best materials to ISI [journals listed in the ISI Web of Science citation index]. (Many in the group nod in agreement.)

SA (junior researcher doing a post-doc in the UK): But you cannot send to ISI.

PA (senior researcher, editor of a journal): Yes, if you don't send to an ISI journal, your article doesn't count for the stages of research and incentives. My journal is not in the list, and we are not getting the same quality as we used to have. (More nodding in agreement)

SA: OK, I understand what you are saying, but I'm trying to explain that ISI is not the "owner" of the journals. It is an index with journals, and CONACyT and the SNI system use that information as an indication, but it is not the only source.¹⁹ There is also SCImago, and other indexes.

RE: But it is all the same . . . or perhaps not . . . Well, I admit that I don't know what an ISI or Spocus [sic] journal is, but the important point is

that we cannot decide where to publish our research. They have decided for us, and that is wrong for us, wrong for the university, and wrong for the country. (The audience applauded.)

This sense of unease over who sets the standards for science was also observed in other publishing workshops. It may be that, in the future, researchers will better understand the functions, scope, and limitations of the "scientific indexes" (ISI Web of Science, Elsevier's Scopus, SciELO, etc.). Yet, it is more difficult to dismiss the larger and more complex problems involved in questions of where to publish, for what purposes, and according to whose standards and goals.

During the publishing workshop in Bogotá, editors explained that professors are given a monetary reward for every publication they produce. The size of the reward depends on the journal's prestige, as determined by the Instituto Colombiano para el Desarrollo de la Ciencia y Tecnología (Colciencias), which uses Thomson Reuters' ISI Journal Citation Report (JCR).²⁰ In light of these efforts to reward the quality of research, the editors expressed an interest in how an online management platform such as OJS could help them meet the requirements for Colciencias' top-tier qualification, which is critical for attracting the top Colombian researchers. We explained that journals that use OJS are able to (a) be indexed by Google Scholar, which captures the citation counts for journal articles; (b) provide further statistical support for calculating quality measures like acceptance rates and time-to-publication; and (c) help support an effective and efficient peer review process with regard to, for example, monitoring and evaluating the reviewer pool. None of this would guarantee an elevation of journal quality or admission to the ISI Web of Science index. But our hope is that such systems can help editors establish and build understanding of the research quality that can be achieved by journals that fall outside those very select groups. They could help Latin American editors challenge the incentive structures that encourage researchers to publish outside the region due to the simple fact that Latin Ameri-

19. SNI (Sistema Nacional de Investigadores) is the Mexican "National System of Researchers of the CONACyT" (Consejo Nacional de Ciencia y Tecnología).

20. See Thomson Reuters' Journal Citation Report (JCR): www.thomsonreuters.com/products_services/scientific/Journal_Citation_Reports#overview

can journals are underrepresented in the JCR or the SCImago Journal Rank (SJR) (Alvarenga et al., 2006).²¹

In one instance, a workshop participant with experience in the area commented that, while she did not agree with the vision of science put forth by these groups, she welcomed their efforts to try to improve the quality of research publications (Ecuador, October 8, 2007). Along similar lines, a workshop participant in Colombia stated that he disagreed with SciELO's approach to determining journal quality, but still felt that it was the best tool available to gain recognition and visibility for his journal (Colombia, November 11, 2007).

There was also a lengthy discussion in Mexico (November 2008) on the need to recognize the differences in assessing quality for the social sciences and humanities, and for the natural and biological sciences. This had to do with the relevance of assessing the "social impact" of the scholarly production of the region. One of the most influential experts in bibliometric studies concluded the meeting by challenging the audience to distinguish between science's social benefits and science's universal quality as knowledge:

Before anything else, you need to define what model of science you believe in. You [pointing to the group of editors of social science and humanities journals] are making the mistake of trying to assess "scientific worth" based on ideological preferences, or what you are calling the "social impact" of science. I think that if you don't believe that science is "universal," go ahead and spend the rest of your life trying to develop a system for measuring "social impact." But that will not tell you anything about scientific knowledge. The other option, and I think that it is the only

good option, is to use more of your energies in trying to improve the quality of your publications, and that [process of improvement] is how you get into ISI, Scopus, or SciELO.

The general concern that, too often, Latin American researchers are responsible for "poorly written, researched, and prepared articles" is being addressed by a number of measures intended to raise the standards and set higher goals for this research, including the designation of "approved journals" in which to publish, such as *Núcleo Básico de Revistas* in Argentina, *Publindex* in Colombia, and *Qualis* in Brazil (Terra-Figari, 2008).²² These concerns are largely directed at explaining why Latin American research is denied a place in the global sphere of academic publishing. Yet this trend of rewarding publication in journals listed by ISI Web of Science and Scopus has the potential to undermine the national and regional relevance of the Latin American publications by transforming them into "generic" or "colonized" journals. This orientation toward a narrow band of journals, with many titles published abroad, can also stand in the way of developing the needed review culture among Latin American journals, as everyone's attention is spent elsewhere or on the very best journals, with little or no sense of interest or responsibility for contributing (in the form of peer review and editorial boards) to the full range of journals that are needed to support the research community.

One of the common complaints or fears we gathered is that some well-established researchers publish abroad and never offer their best research articles to local journals. Patalano (2005) echoes this observation, noting that there is an overall perception that local publications are of lower quality.²³ In this regard, Patalano indicates that the change of medium, from paper to online, will not improve this

21. SCImago Journal Rank (SJR): www.scimagojr.com/

22. In our interactions with members of research councils from several Latin American countries, the concerns about quality often followed the rationale of a 2006 World Bank working paper stating that:

The quality of research in Latin American universities is not uniformly good, particularly considering the funds allocated them . . . The data indicate that all countries in Latin America publish below what is expected based on their level of income. Researchers in countries such as Argentina, Brazil and Mexico produce on average an international peer-reviewed article only every five years. Moreover, the quality of research, as indicated by the citation impact factor, is low in the region. (Thorn & Soo, 2006, p. 12)

23. Licea de Arenas et al. (2003), in a study of Mexican PhD-holders trained abroad, found that the majority had selected international publishing outlets in ISI-indexed journals. Alternatively, they wrote in English for journals published in their own countries that are known to have a sufficiently wide circulation in the region. Both approaches are supported by specific policies of the research councils in some countries.

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situation until the local scientific communities reevaluate and strengthen their own publications. Fortunately, in workshop after workshop across the continent, lively discussions arose over what constitutes high-quality research, what must be understood by “science,” and how to best improve the way in which science is carried out and communicated.

5. Conclusions

In a region deeply affected by transformations of its higher education landscape, the efforts of those involved in the production of academic publications to improve the quality and visibility of their products has not gone unnoticed. University administrations are demanding that the publications they fund be more visible; national science councils are demanding that the science produced in their countries have a higher regional and global impact, as well as better articulation with the private sector and society in general; and editors are demanding higher-quality submissions (Thorn & Soo, 2006).

The multilayered pressures and subsequent demands have resulted in complex, and not always very clear or stable, models of measuring the quality and impact of the research and academic production in Latin America. Thus, despite all the attempts and lively discussions taking place throughout the region (CRES, 2008), it is not surprising that our findings suggest that the scholarly communities in Latin America have not reached consensus, and that much can still be done to strengthen scholarly communications in the region.²⁴

Our analysis indicates that, in broad terms, there are two contradictory perceptions among the members of the academic profession in the region: For some, the current approaches are working well, and current incentive structures (or some variation of these) and the use of scientific agencies to measure quality will lead to a scholarly system with higher regional relevance and increased impact. Others fear that the current trends are leading toward a system that is elitist, where those who succeed will be

those who choose to participate in the incentive- and metric-based impact games, and where those with alternative visions of science will be punished.

Our research suggests that the divergence of perspectives and lack of a general vision about what will be the best strategy or strategies to strengthen the scholarly capacity in Latin America is a key challenge. We have highlighted here many of the difficulties ahead, but our research also finds that, besides problems in the region, there are implicit and explicit overlapping conditions, and that, in those, there is great potential for strengthening the scholarly capacity in Latin America.

Based on the workshops, surveys, and interviews, we identified six particularly relevant areas or trends that are worth noting and developed two strategic recommendations for strengthening scholarly publishing in Spanish-speaking Latin America.

First is recognizing the critical importance of identifying the challenges of measuring quality and impact, demonstrated by both the perception of the quality of articles that editors are receiving and the rapid expansion of indexes, archives, etc.

Second, there are numerous scientific systems being applied and used as proxies for evaluating impact and quality (Latindex, RedALyC, SciELO, Qualis, Scopus, ISI, etc.). These systems have been developed for different reasons and within different epistemological traditions, but in Latin America, they are being used in combination and with a certain degree of discretion by authors, editors, universities, and science councils, stimulating forums of discussion that are quite encouraging.

Third, Latin American universities and research centers are rapidly adopting innovative practices of e-publishing, as well as OA models and protocols, and they are tailoring them to their local needs, keeping in mind their long-term perspective to make those publications more global. We found an active university community devoted to thinking and acting on these very topics.

Fourth, as a corollary of their place in the above, and as the current sponsors of the vast majority of

24. Jorge Katz, one of the most respected analysts of the tendencies of R&D in the region, notes that:

The poor functioning and slack performance on the part of institutions and an inadequate incentive regime are the main reasons for the negligible part domestic technology sources have played so far in innovation in Latin America . . . A long road remains to be travelled before domestic firms, universities, engineering consultants, banks and insurance companies, professional associations, municipalities and government officials in general learn how best to deal with questions of innovation and domestic technological development. (2006, p. 65)

journals produced, universities have a crucial role to play in the strengthening of scholarly communications. Somehow, the wide disparity between the expectations around journal impact and the quality of research being produced needs to be addressed. If the LAUs are eager to adopt the research model, the appropriate mechanisms will need to be in place, so that researchers are trained to produce the type of research and research publications expected of them.

Fifth, the current lack of interest from commercial publishers has opened up areas for exploration into academic publishing within the public sector, challenging the traditional perspective that innovation is encouraged only within the for-profit sector. In spite of all the problems noted, the rapid proliferation of high-quality, low-cost (or even free) open access publications is one of the most encouraging signs in the region.

Finally, our analysis indicates that editors and others with an interest in Spanish-language Latin American journals who participated in this study are concerned about seeing an improvement in the quality of publishing, as well as in the visibility and indexing of these journals. They are working with journals that are institutionally supported in large measure, a condition that makes feasible the open access forms of publishing that will extend the journal's global reach.

The first strategic recommendation may well seem simply self-serving on our part, as we propose that, in order to increase visibility and potential impact, both training and support need to be provided for the use of online management and publishing systems that reduce costs, improve management, and increase accessibility. Those systems need to be integrated with the major indexes, such as Latindex, SciELO, and RedALyC. In this regard, the workshops have enabled the Public Knowledge Project to build the connections with these indexes, and to begin taking steps to facilitate greater integration and a wider range of measures.

Our second recommendation is based on what also became strikingly clear to us from the workshops: that technology is only one small piece of the puzzle. The far more pressing challenge is to increase local institutional and professional associations' support and recognition of the vital role that peer review plays, a larger effort that can serve as a

way to mentor a higher quality of research and scholarship.

While there are numerous strategies available for promoting a stronger research and review culture, it needs to be noted that the principal impediment for developing this culture within Latin America at this point may be, ironically enough, the growing support for the so-called research university model. This model's incentive structure sends the message that only the top-ranked journals matter, and that only those who publish in the approved "journals lists" matter. We believe the master list fails to develop any sense of value in mentoring and supporting new and innovative work, as this model creates a very narrow and externally focused elite within the larger academic community. This can end up undermining a vital regional review and publishing culture that would otherwise serve, one imagines, as an active training and recruiting ground for the very best international journals.

That said, we see numerous opportunities for building a stronger research and review culture operating at a number of levels, including professional meetings and workshops, as well as within the graduate programs that are training the next generation of researchers and scholars. The fostering of this culture can take place through both explicit instruction and opportunities to participate in the writing, reviewing, and editing of research proposals, research designs and instruments, and journal articles. We would caution, based on the discussions we witnessed, that efforts to improve the quality of research—through receiving review of one's work and by reviewing the work of others—should not be driven exclusively by an interest in being published in ranked or listed journals, as if that were the very goal of scholarly inquiry. Rather, efforts to build the research culture should be approached, within graduate programs and among researchers generally (through professional associations, for example), as a means primarily of increasing the contribution that the research makes, which will have the effect of improving the quality of journals.

It should also be said that the issues and challenges presented here are not an exhaustive list, nor are the strategic recommendations we make sufficient, or even straightforward to implement. However, we are certain that scholarly publishing in Latin America is already poised to make significant

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advances in its global reach and its regional contributions through the development of sophisticated online indexes and publishing platforms; through the support for open access models of publishing; and through the interest among editors and others in ways of advancing scholarly publishing, such as we were fortunate to see among the participants in these workshops. Yet, what is most encouraging of all is the considerable expression of interest that we witnessed among those who are facing and addressing those challenges and issues on a journal-by-journal basis. It is our hope that the findings and conclusions presented here serve to better inform these individuals. ■

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