InfoTecarios:

A regional initiative for the scientific dissemination of library and information science

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Abstract

This article shares the experience of the InfoTecarios group, while commemorating its fifth anniversary. InfoTecarios is a regional initiative that publishes weekly blog posts in its website, written by Latin American professionals, and hence it conducts an important scientific dissemination activity of library and information science. It presents details about its origin, the selection and format of its publications, the technologies they use to operate and promote the group and its website, their website's user and usage data, as well as some conclusions about its importance and its future. InfoTecarios is a useful example for other groups of the region wishing to conduct scientific dissemination through online and collaborative activities.

Keywords: InfoTecarios, scientific dissemination, professional activities, library and information science

Zamboni (2001) defines scientific dissemination as an activity of knowledge socialization of knowledge without restrictive limits conducted through the discursive restatement of scientific content. Scientific dissemination is the best way to process the information generated by researchers with the purpose of sharing it to the general public (Bosch, 2011). The format of dissemination documents demands to communicate science in an attractive way, in order to invite a larger and usually non-scientific audience to appreciate scientific knowledge, because the purposes of scientific dissemination are reducing scientific illiteracy and help develop educated citizens (Sjøberg, 2002; Nakkazi, 2015). Other purposes of scientific dissemination are improving the image of a given discipline, link science to social realities by transferring scientific findings to society, and ensuring that society -or at least a wider audience- receives something back for the various financial and moral investments in educational institutions, academics and researchers.

The InfoTecarios group, which celebrated its fifth anniversary this May 17th, is a crowdsourcing project that harnesses the possibilities of collaborative work and collective intelligence to conduct the scientific dissemination of topics connected to librarianship, archiving, documentation, information science and related fields. The group achieves this through the weekly publication of blog posts written by Latin American professionals. The strength of this initiative lies in counting with the diversity of the visions contributed by their participants, which are contained in the form of short articles published on its website¹.

¹ http://www.infotecarios.com

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The website is a collaborative space to create and deliver contents centered on the regional context to its audience, both freely and in Spanish.

The group has received awards as the best librarianship and documentation blog (Biblogsfera, 2013) and the third place in the educational blogs category (Educa Business School, 2014). It has also collaborated with other collectives, for instance, by creating the column *Voices from the South: Rethinking LIS from the Latin American and Caribbean Perspective*, in collaboration with Hack Library School². This series seek to explore the realities of professional training in the Americas, through the accounts of the InfoTecarios' members. InfoTecarios publishes the Spanish versions and Hack Library School the English ones (e.g. Méndez, 2015a; Méndez, 2015b). Although the presence, visibility and use of the InfoTecarios website are quite high and they are generally known among Latin American library and information science (LIS) professionals, when conducting searches in Scopus, in various EBSCO's databases and in Google Scholar, it is evidenced that their contribution has not being mentioned in scientific journals. Hence, it is positive to take this opportunity to make this initiative known through a specialized, English-language, peer reviewed and indexed journal such as Information Development.

The following sections present details about its origin, the selection and format of its publications, the technologies they use to operate and promote the group and its website, their website's user and usage data, as well as some conclusions about its importance and its future. InfoTecarios' case is relevant as a regional initiative for the scientific dissemination of the LIS field. Moreover, the study of their experience may be a valuable and useful example for other groups of the region wishing to conduct scientific dissemination through online and collaborative activities.

InfoTecarios' origin

InfoTecarios emerged after several Latin American professionals started to join the Biblogtecarios' blog³ (BBT), which originated in Spain and published its first entry on 13th October 2010, as the topics, tendencies and lines of research developed within BBT did not completely fit together with Latin American realities. Despite BBT is a Spanish website centered on LIS, some Latin American authors did not necessarily identify with its contents, almost exclusively focused on Spain. At that time, Julián Marquina (Spain), Diego Ariel Vega (Argentina), Saul Mtz. Equihua (Mexico, InfoTecarios' director) and Myrna Lee Torres-Pérez (Puerto Rico, co-director) aimed at replicating BBT's concept for Latin America. The writers from the region that originally wrote for BBT started to publish simultaneously in InfoTecarios, but then the majority withdrew from the former to publish exclusively in the latter, while Equihua and Torres-Pérez continued to recruit new authors. Currently, 22 authors from Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Mexico, Panama, Peru, Puerto Rico, United States, Uruguay and Venezuela constitute InfoTecarios. The group is permanently searching for new members, especially from the countries not currently present in the group.

At the initial stage of the project, the recruitment of new authors was mainly made through recommendations from members, but some authors also joined voluntarily. InfoTecarios also uses an authorship form called "invited signatures" to designate authors that were invited to write on a particular subject, but that do not belong to the group and hence they are not required to publish periodically as full members do, one text per month. However, invited signatures — about 72 as of yet- obtain an enhanced visibility by participating in such a dynamic website in the LIS field and those actively participating in this modality for three months are offered a full membership.

From its origin and for five uninterrupted years, InfoTecarios has been offering a space for the constructive reflection and dissemination of diverse visions, contexts and situations affecting the LIS field in Latin America. InfoTecarios has also been a platform to develop other initiatives and projects related to reading promotion, collecting best practices and collaborative research projects among authors from different countries. The latter have resulted in presentations at national and international venues such as Guadalajara's International Book Fair (Mexico) (López, 2014), the XLV National Librarianship Conference of the Mexican Librarians Association (Vega, 2014) and the Annual Conference of the American Library Association (Villegas and Torres-Pérez, 2014; Torres-Pérez, Villegas and Equihua, 2016).

Selection and format of the content published by InfoTecarios

InfoTecarios established a series of requirements that the texts published on its websites must fulfil, all of which ensure that every

² https://hacklibraryschool.com

³ <u>http://www.biblogtecarios.es</u>

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publication has a good level of quality, pertinence and value. Such requirements include a series of style and format guidelines, which are required from members and invited signatures. Among the requirements that authors have to meet, are: a) have a Gmail email account, as the group works with several Google online tools, such as Groups for internal communications, Calendar to set publication dates, Drive and Docs to edit and store documents; b) have a basic understanding of how to publish contents in a Content Management System (CMS), specifically Wordpress, as it powers the group's website; c) create a Wordpress⁴ account and a Gravatar⁵ profile; d) share Facebook and Twitter contact details with the group; and e) support in promoting the website's contents through their personal social media accounts (not mandatory).

The group's members must commit to publish one post per month and its publication date has to be set in the platform with at least two days in advance, as InfoTecarios publishes from Monday to Friday. Given such a publication rhythm, it is vital to follow a careful scheduling of publication dates and for authors to commit to contribute their texts on time and notify in advance any difficulties in meeting deadlines.

InfoTecarios provides their authors with a series of tips to write their texts and it has some general guidelines for writing posts. The latter include aspects such as:

- The text must be original and related to InfoTecarios' themes
- Contents must be clear, concise and direct
- Include an attractive, descriptive and meaningful title
- Texts must be structured in sections and subsections, including an introduction, conclusion/reflections, references, and keywords.
- Style aspects that must be carefully considered are the appropriate use of: punctuation, grammar, spelling, capital letters, italics, abbreviations, numbers and Anglicism use must be indicated between quotation marks.
- The recommended extension is from seven to ten paragraphs and each paragraph must not be longer than seven lines. There is the option to divide long texts in several issues published at different dates.
- Texts should have an image or multimedia content and their sources must be cited if they are not original.
- Include hyperlinks to external websites within the text for mentioning institutions or information sources. The latter must also be included in the references section.
- Additionally, invited signatures must send their photo, a mini-CV (no more than five lines) and their text to the group's email, as well as to the director and co-director.

Technological platforms used and contents' promotion

InfoTecarios' website is powered by Wordpress and they installed several plugins for using advanced features. The group's operation, as well as the collaborative preparation and storing of contents is done with the Google tools that were previously mentioned, such as Google Drive, Docs, Groups and Calendar, as they are cloud-based applications that facilitate collaborative work. Apart from the group set on Google Groups, they use private groups in Facebook and Whatsapp for internal communications. Apart from the statistics offered by Wordpress, they use Google Analytics to have a greater understanding of usage statistics and their users' profiles. The next section provides details about such statistics.

The promotion of their website and contents is primarily done through social media. The group has an official account in such networks and they recommend their members and invited signatures to support promoting their authored contents in their own social accounts. The social media platforms that used by the group are mainly Facebook, Twitter, Instagram and Google+. In Facebook, they share the daily publications using the Infotecarios account and group members share their own posts in their Facebook accounts. InfoTecarios' Facebook account is also used to share the posts in several interest groups within the same platform and that are generally related to LIS, such as Latin American Librarians⁶, Information Literacy⁷, Cataloguing Practice⁸, Communities of Practice – Libraries from the UPR System⁹ and Electronic Papyrus¹⁰ (as translated from the groups' original names in Spanish). A given post is shared on the groups in which the topics of interest match the topic of the text. In Twitter, the InfoTecarios account tweets the daily publications and the group's member retweet within the same network to their followers. In Twitter, InfoTecarios has used several hashtags, such as #JuntosSomosInfoTecarios (#TogetherWeAreInfoTecarios), #SoyInfoTecario (#IamInfoTecario) or #Biblioteca (#Library).

⁴ <u>www.wordpress.com</u>

⁵ www.gravatar.com

⁶ https://www.facebook.com/groups/216298268385775

⁷ https://www.facebook.com/groups/347127501985354

⁸ <u>https://www.facebook.com/groups/catalogacion</u>

⁹ https://www.facebook.com/groups/132580870213125

¹⁰ https://www.facebook.com/groups/219675071396685

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The latter hashtag corresponds to an initiative started by Spanish-speaking librarians (including Latin America and Spain) that has been conducted between 10-12 August (depending on the year), from 2009 and during eight consecutive years to position this hashtag as a 'trending topic' in Twitter (Arroyo, 2016). In previous years, the group also prepared a newsletter they sent by email to professional librarians' associations. Some group members also share their own publication in LinkedIn and Google+. In 2017, they created their official Instagram account with the #MannequinChallenge from the libraries.

Website's usage and users

This section details the usage of the InfoTecarios' website and their users' profile. Google Analytics data from 17 May 2012 to 16 March 2017 indicate that within such time period there were a total 768,706 sessions in the website, which correspond to 577,239 users that in sum have viewed 1,088,968 pages within the website (page-views). This means that a user can visit more than one page within the website during each of their sessions. Users visit an average of 1.42 pages per session and the average session length is one minute and 39 seconds. Frequent users amount to 24.9% of the sessions, while 75.1% correspond to new users. Wordpress statistics, which are available from June 2013 to February 2017, allow having an idea of the page-views per day, month and year. In its most active day, the website received 2,430 page-views, while the averages of page-views per day have ranged from 57 to 1,384 (depending on the month and the year under consideration).

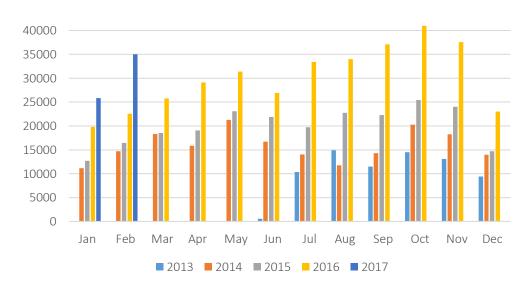


Figure 1. InfoTecarios' page-views per month (2013-2017). Source: Wordpress' statistics

Although Wordpress' statistics are only complete for three years -2014, 2015 and 2016-, there was a clear increase in the number page-views within those years. Specifically, in 2015 there was a 26.28% increase compared to the page-views recorded in 2014; while in 2016, the growth was of 50.23% over 2015's page-views. There was a total of 190,566 page-views in 2014, 240,638 in 2015 and 361,517 in 2016.

Regarding users' demographic profile (n = 577,239), the majority of sessions are made by female users (64.3%) and sessions by age ranges, as grouped by Google Analytics, are the following: from 18 to 24 years old (27.48% of sessions), 25 to 34 (28.13%), 35 to 44 (21.05%), 45 to 54 (13.64%), 55 to 64 (6.86%) and over 65 (2.84%). These users have written 877 comments distributed throughout the website's many posts. Sessions and users come from 171 different countries. With 585,924 sessions and 439,100 users (76.07% of total users), the main proportion of users connect from Latin American countries. Primarily from Mexico (149,809 sessions, 116,641 users, equivalent to the 20.21% of total users), Argentina (118,807 sessions, 76,671 users, 13.28% of users), Colombia (87,601 sessions, 69,062 users, 11.96% of users), Peru (42,904 sessions, 33,319 users, 5.77% of users), and Venezuela (42,889 sessions, 33,905 users, 5.87% of users).

It is also relevant to mention the amount of sessions and users from other countries and regions.

Table 1. Sessions, percentage of sessions, number of users and percentage of users from Latin American countries (2012-2017). Source:

Google Analytics statistics.

Country	Sessions	% of total sessions	Number of users	% of total users
Mexico	149,809	19.49%	116,641	20.21%
Argentina	118,807	15.46%	76,671	13.28%
Colombia	87,601	11.40%	69,062	11.96%
Peru	42,904	5.58%	33,319	5.77%
Venezuela	42,889	5.58%	33,905	5.87%
Ecuador	26,707	3.47%	22,075	3.82%
Chile	26,312	3.42%	20,799	3.60%
Costa Rica	14,485	1.88%	9,743	1.69%
Uruguay	10,742	1.40%	6,832	1.18%
Puerto Rico	8,941	1.16%	5,406	0.94%
Brazil	8,827	1.15%	6,222	1.08%
Dominican Republic	8,169	1.06%	6,737	1.17%
Guatemala	7,672	1.00%	6,306	1.09%
El Salvador	7,344	0.96%	5,235	0.91%
Bolivia	7,118	0.93%	6,142	1.06%
Panama	5,636	0.73%	4,669	0.81%
Cuba	3,476	0.45%	2,233	0.39%
Honduras	3,060	0.40%	2,637	0.46%
Paraguay	3,054	0.40%	2,352	0.41%
Nicaragua	2,286	0.30%	2,052	0.36%
Other countries	85	0.01%	62	0.01%
Total Region	585,924	76.22%	439,100	76.07%

The website receives 19,664 sessions from 15,666 users in the United States (2.71% of total users), which is the ninth country with the most sessions, and 809 sessions from 646 users in Canada (0.11% of users). In other continents, 154,501 sessions are made by 115,650 users from European countries (20.04% of total users); from which 142,258 sessions are from 105,436 users from Spain (18.27% of users), making Spain the second country with the most sessions, while 2,385 sessions are from 1,823 users in Portugal (0.32% of users). 3,648 sessions are from 3,210 users in Asia (0.56% of users), 600 sessions are from 535 users in Africa (0.09% of users) and 241 sessions are from 189 users in Oceania (0.03% of users) (see Table 1).

Conclusion

InfoTecarios is a relevant regional project regarding the scientific dissemination of LIS, as it is the only one of its kind and its statistics indicate that it has a very good visibility. It is possible to appreciate their users' perceptions in the answers that readers provided in a survey conducted at InfoTecarios' fourth anniversary, as surveyed users defined the role of the group and their website with expressions such as "a north in our profession" and "a daily and mandatory reference tool". In the same survey, readers highlighted the quality of the contents, their ethics, professionalism and the importance they have by providing a space to make the diverse voices of the region known, as well as for communicating, enriching and disseminating best practices and keep the LIS professionals from the region up to date (DeVolder, Medina and Torres-Pérez, 2016). Websites such as InfoTecarios, which have the shape of a blog have been recognized as an "excellent information resource, as they act as a complementary source to distribution lists, news sites, chats, directories, search engines and even professional journals" (Sorli and Merlo, 2003: 227).

Currently, the groups' official social media accounts have 7,353 followers on Facebook¹¹, 6,098 on Twitter¹², 429 on Wordpress, 129 on Instagram¹³ and 94 on YouTube¹⁴. Their presence on social media is important, as the majority of the website's users know about it because of Facebook, because of others' recommendation and by email (DeVolder, Medina and Torres-Pérez, 2016). Additionally, all group members are active in sharing InfoTecarios' content on their own social media accounts, which in turn

¹¹ https://www.facebook.com/infotecario/

¹² https://twitter.com/InfoTecarios

¹³ https://www.instagram.com/infotecarios/

¹⁴ https://www.youtube.com/user/InfoTecarios

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have different amounts of followers that identify with the contents and style of their publications and use such spaces for interacting with group members. Such user support is because InfoTecarios portrays and communicates the various LIS realities in the region. Their website disseminates the positive experiences that are implemented in our countries, it educates, promotes and, when necessary, it denounces any situation that might be detrimental for LIS as a field of study and professional practice. InfoTecarios is a unique space in the region and its general tone seeks to be that of an educational, trustworthy and hopeful voice for the Latin American Librarian.

The contribution that the website offers to the professional community and LIS students lies in disseminating the unique talent and experiences of each author, which are made available in an enriched, structured and formal manner. Their main audience, as reflected in the survey conducted at their fourth anniversary (n = 123) is constituted by a majority of librarians or archivists (71%), followed by LIS professors (10.4%) and LIS students (7.2%), while the rest of the surveyed group selected the 'other' or did not respond (DeVolder, Medina and Torres-Pérez, 2016).

InfoTecarios' platform is a space for the real-time sharing if knowledge and experiences between authors and the interested community, as it offers mechanisms for the direct communication and debate with its authors; which are characteristics that Sorli and Merlo (2003) recognize as the advantages that such kinds of spaces offer to online professional communities. This platform allows authors and the group in general to become educational spokespersons who share, report and provide free visibility to various current contents and topics that are pertinent to the Latin American professional community and to LIS students. All InfoTecarios acknowledge having a responsibility to themselves, their audience, their country, and with their professional field. Such a responsibility guides them in fulfilling their roles, it is what has allow the group to celebrate their fifth year and hence, it is what has maintained their users satisfy and with a positive perception about their contribution to the region. Considering the platform's statistics presented and that LIS are in a constant and accelerated transformation process in the region, we can project that InfoTecarios will continue to grow and strengthen. For this growth to take place, it is vital for the group to continue the work they do within the same quality parameters they have maintained, as well as participating, contributing and promoting their online presence. All LIS professionals from the region are invited to be part of the group and support it, as InfoTecarios aspires to represent the excellence of this field of study and practice in the region. It aspires to be the voice of the Latin American Librarian.

References

- Arroyo N (2016) #biblioteca, octava edición. In: Biblioblog. Available at: https://biblioblog.org/2016/08/01/biblioteca-octava-edicion (accessed 10 March 2017).
- Biblogsfera (2013) Mejor blog ByD 2013. In: Biblogsfera. Available at: http://biblogsfera.com/mejor-blog-byd-2013/ (accessed 10 March 2017).
- Bosch M (2011) Dimensión ética de la comunicación científica y tecnológica. Buenos Aires: Instituto Nacional de Tecnología Agropecuaria, Gerencia del Sistema de Información y Comunicación.
- DeVolder C, Medina J and Torres-Pérez ML (2016) InfoTecarios encuesta a su público. In: InfoTecarios. Available at: http://www.infotecarios.com/infotecarios-encuesta-publico/ (accessed 10 March 2017).
- Educa Business School (2014) Finalistas otras categorías. In: Educa Business School. Available at: https://educa.net/finalistas-otras-categorias (accessed 10 March 2017).
- López F (2014) InfoTecarios y BiblogTecarios en #FILGuadalajara. In: InfoTecarios. Available at: http://www.infotecarios.com/biblogtecarios-e-infotecarios-en-filguadalajara (accessed 10 March 2017).
- Méndez A (2015a) Voces del Sur: Alejandra Sofía Méndez (Puerto Rico). In: InfoTecarios. Available at: http://www.infotecarios.com/voces-del-sur-puerto-rico/ (accessed 10 March 2017).
- Méndez A (2015b) Voces del Sur (Voices from the South): Rethinking LIS from the Latin American and Caribbean Perspective [Series].

 In: Hack Library School. Available at: https://hacklibraryschool.com/2015/09/09/voces-del-sur-voices-from-the-south-rethinking-lis-from-the-latin-american-and-caribbean-perspective-series/ (accessed 10 March 2017).

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- Nakkazi E (2015) Lo que los periodistas quieren de los científicos y ¿por qué? In: SciDevNet. Available at: http://www.scidev.net/america-latina/comunicacion/guia-practica/qu-requieren-los-periodistas-de-los-cient-ficos.html (accessed 10 March 2017).
- Sjøberg S (2002) Science and technology education current challenges and possible solutions. In: Jenkins E (ed) *Innovations in Science and Technology Education*, Vol. VIII. Madrid: UNESCO, pp. 201-228. Available at: http://unesdoc.unesco.org/images/0013/001323/132364e.pdf (accessed 10 March 2017).
- Sorli A and Merlo J (2003) Weblogs: Un recurso para los profesionales de la información. *Revista Española de Documentación Científica*, 26(2), 227-236. Available at: http://redc.revistas.csic.es/index.php/redc/article/view/236/292 (accessed 10 March 2017).
- Torres-Pérez ML, Villegas S and Equihua S (2016) Buenas prácticas y modelos destacados en las Bibliotecas latinoamericanas (Best practices and models from Latin America). In: InfoTecarios. Available at: http://www.infotecarios.com/best-practices-and-models-from-latin-america (accessed 10 March 2017).
- Vega D (2014) XLV Jornadas Nacionales de Biblioteconomía (AMBAC, A.C.) México. In: InfoTecarios. Available at: http://www.infotecarios.com/xlv-jornadas-nacionales-de-biblioteconomia-ambac-c-mexico (accessed 10 March 2017).
- Villegas S and Torres-Pérez ML (2014) Convención de American Library Association: experiencia de dos InfoTecarios. In: InfoTecarios. Available at: http://www.infotecarios.com/convencion-de-american-library-association-experiencias-de-dos-infotecarios (accessed 10 March 2017).
- Zamboni L (2001) *Cientistas, jornalistas e a divulgação científica: Subjetividade e heterogeneidade no discurso da divulgação científica.*Campinas: Autores Associados.