

# Librarians and AI literacy: strengthen awareness and AI literacy in Argentine and Latin American libraries\*

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## Abstract

This paper presents a set of AI literacy experiences and actions aimed at the group of professional working in libraries and similar institutions (such as archives, museums and galleries) in Argentina and Latin America. The actions began to be developed in 2023 as a response to the lack of public policies or bills from the national congress that had as their objective the relationship between libraries, human knowledge and artificial intelligence. From this, in addition, the question quickly arose about how much librarians know about AI. This paper is a kind of report on the practical applications of AI literacy actions that we have developed: among others, a conference, a technical report with recommendations, two distance courses, a workshop and an installation on AI in libraries. Until now these actions have had a certain spontaneity and have reached just few members of the library community. The purpose of this paper, and the larger research that supports it, is to seek better planning on AI literacy over time and strong technological updating for the group of librarians and related professions in Argentina and Latin America.

## Keywords

Artificial Intelligence, Literacy, Librarians, Argentina and Latin America

## 1. Introduction: challenges of AI for human knowledge

The emergence of artificial intelligences (henceforth AI) are generating profound changes in our societies. Among others, AI are facilitating radical changes in relation to access to information/data and knowledge management [1] [2] [3]. These are key technologies for the present and future of libraries and other public-communitarian institutions such as museums, archives, galleries (henceforth GLAM). It is clear, some developments in AI represent good opportunities for GLAM<sup>2</sup>. However, beyond their benefits (real and potential), these technologies also pose latent dangers for human rights<sup>3</sup>. In this paper we propose to share a report on the AI literacy actions that we carry out with the group of librarians in Argentina and Latin America: among others, a conference, a report about AI and libraries, two online courses, a workshop and an installations on AI in libraries. Specifically, we analyzed the initiatives carried out by three relevant actors in the field: “Asociación de Bibliotecarios y Bibliotecarias Graduados de la República Argentina / Association of Graduated Librarians of Argentine Republic” (henceforth ABGRA)<sup>4</sup>, the “Instituto de Humanidades y Ciencias Sociales / Institute of Humanities and Social Sciences” (henceforth INHUS)<sup>5</sup>, from CONICET and the Faculty of Humanities - National University of Mar del Plata (FH-UNMDP) and


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<sup>2</sup> They allow them to enhance their information acquisition, preservation, organization and literacy capabilities for users and communities [4] [5] [6] [7]. Even UNESCO's recommendations on the Ethics of Artificial Intelligence propose, in section 100, that Member States encourage institutions to use AI to enhance their collections and provide users with their databases and knowledge [8] [9].

<sup>3</sup> Among others, asymmetries in access/availability, gaps, monopolies, privacy violations, extractivism, biases, discrimination, fake news, disinformation, autonomous weapons, etc. [10] [11].

<sup>4</sup> URL: <https://abgra.org.ar/>

<sup>5</sup> URL: <https://inhus.conicet.gov.ar/>

the “Grupo de Investigación en Ciencia, Tecnología, Universidad y Sociedad / Research Group on Science, Technology, University and Society” (henceforth CITEUS)<sup>6</sup> also from FH-UNMdP.

## 2. Conference at MetLib - Buenos Aires as a trigger

The ‘International Federation of Libraries and Institutions’ (henceforth IFLA)<sup>7</sup> ‘Metropolitan Libraries Conference’ (henceforth MetLib)<sup>8</sup> was developed in Buenos Aires, Argentina from October 2-4, 2023. The theme of the conference focused on how metropolitan libraries can play an important role in addressing issues of participation, inclusion, and sustainability (social, economic, environmental) for their communities. One of its main topics, aligned with the United Nations Sustainable Development Goals (SDGs), was to invite to rethink inclusive and technological strategies for libraries and promoting human rights and equality through access to knowledge and culture (among others, affecting SDG 4, 16, 8, 9, 10). In that opportunity, one of the MetLib guest speaker was Ariel Vercelli that offered the conference “Artificial Intelligence and its regulations” [12]. The central question of his presentation was why, if librarians were trained in information sciences and, in fact, collaborate in the daily management of human knowledge, are they so far from the collegiate bodies where AI policies and regulations are discussed? Vercelli explained that in Argentina none of the policies of the executive branch nor any legislative projects, from 2018 to the end of 2023, have referred to the analysis of the relationships between libraries and AI. And he stated that this absence of specialists from GLAM is a constant at the international level. MetLib Buenos Aires served to affirm that librarians cannot be oblivious to AI and that these technologies are central to the present and future of its work. But a question was left floating in the air, how much do librarians know about AI?

## 3. Recommendations from the IFLA 2024 Report on A2i and AI

In 2024 the IFLA and the Technology & Social Change Group (TASCHA), University of Washington, prepared the report on “Development and Access to Information” [6], in which they paid special attention to the complex relationships that arise between libraries and AI. The report, that can be downloaded freely as a continuation of the 2017 and 2019 reports [4] [5], has included the participation of Ariel Vercelli for Latin America and the Caribbean. Under the title “Libraries, Access to Information and Artificial Intelligences”, between pages 53 to 61, the researcher analyzed the relevance that AI has for the United Nations (UN) Sustainable Development Goals (SDGs)<sup>9</sup>. He offered three recommendations<sup>10</sup> and, at least, two were oriented to institutions that represent public-community interests (such as GLAM)<sup>11</sup> [2]. Specifically, the second recommendation states that these types of institutions could develop specific AI that, based on free software, focuses on building their own infrastructure to reduce the costs of machine learning. The third

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<sup>6</sup> URL: <https://www.citeus.org/>

<sup>7</sup> URL: <https://www.ifla.org/>

<sup>8</sup> MetLib is organized every year by IFLA URL: <https://abgra.org.ar/metlib2023/>

<sup>9</sup> The great challenge with artificial intelligence is whether its capabilities can be used to create free, inclusive, sovereign devices aimed at the development of Argentina and the countries of the region (or the regions most in need). In particular, Argentina and Latin America and the Caribbean must avoid an AI divide and collaborate to reverse the poor technological development of the global south. At the moment, ALyC only contributes 2.66% of the articles on AI in scientific journals [13]. Percentages worldwide: 47.14%, East Asia and Pacific; 17.20%, Europe and Central Asia; 11.61%, North America; 6.93%, Unknown; 6.75%, South Asia; 4.64%, Middle East and North Africa; 2.66%, Latin America and the Caribbean; 2.30%, Rest of the World; 0.77%, Sub-Saharan Africa [13].

<sup>10</sup> “First recommendation: The right/capability of universal access to information, in addition to the public information managed by the States, should also reach the private-public-community data managed by technology corporations. It should be complemented, as appropriate, by the human right to protection of personal and population data.” ... “Second recommendation: Seek to ensure that public institutions (e.g., libraries, museums, archives, galleries) develop specific AI that protects diversity and human rights, that develop locally through free, open and community-based solutions, and that seek to install their own infrastructure and reduce the costs of machine learning.” ... “Third recommendation: Develop specific AI for libraries, and other public institutions such as museums, archives and galleries, based on data-driven institutional models, seeking the urgent updating of information science university careers in LAC and a greater inclusion of librarians in UN expert groups on AI” [2].

<sup>11</sup> One of the critical points is if the “GLAM” can develop (or collaborate in the development of) AI that are specific to their tasks and that have a public-community character. In particular, it is necessary to avoid the privatization and appropriation of different forms of value and information/data with a public-community character. Similar points are present in free software, open educational resources, open/public data and, among others, AI “of” indigenous peoples [14].

recommendation, directly related with this paper, express the urgent migration of GLAM towards data-driven institutional models and the necessity of updating the university careers of information sciences towards the development and intensive use of AI in the south [2]. Data-driven institutional models and the use of AI to managed GLAM collections and knowledge pose new challenges to information science careers. In the near future universities and other higher education institutions are going to require a profound reconversion of the study plans of these careers. This same commitment must also be made by associations and guilds linked to these professions. Fortunately, AI literacy, AI education and professional updating actions received an immediate attention from ABGRA.

#### **4. Courses of AI literacy for librarians in ABGRA**

To promote knowledge of AI and provide opportunities for discussion about these technologies for librarians (and other professionals from GLAM), Ariel Vercelli and Pablo Bruno D'Amico developed the course for IA literacy "Libraries, Access to Information, and Artificial Intelligences". The course was presented in March and June of 2024 and was organized by ABGRA through its virtual classroom [15] [16]. The initiative was endorsed by "Biblioteca del Congreso de la Nación / Library of the National Congress" (BCN)<sup>12</sup> and the Latin American division of IFLA<sup>13</sup>. The general objective of the courses has been to critically analyze what is happening in libraries and other public institutions in relation to the incorporation of AI into their daily activities. We aimed for our colleagues to be able to analyze this relationship through -at least- three dimensions: universal access to information/data, incorporation and development of AI, and finally, near future scenarios that libraries face due to these technological changes. Among other questions in that we address: What are AI? How are access to information, AI, and libraries related? To whom do these scientific-technological developments belong? Are there AI designed for the management of public-communitarian libraries? Will the incorporation of AI require more librarians or fatally generate unemployment? These and other questions guided both courses' sessions. The courses consisting of four synchronous meetings, which covered theoretical framework and debates on practical issues. We also gave special attention to the digital divide problem, still prevalent in the south [17]. The course also required the completion of a final project by the students based on applying some of the relevant categories of thought or tools to analyze their own activities, terms of use of AI services, or a national/regional case<sup>14</sup>. One of the main theoretical-methodological proposals of these courses was to explore these issues through a layered approach [18] [1], considering that AI are complex assemblages with many layers to deserve analytical attentions. At least, in a still under construction list, eight layers that we consider and discuss: a) infrastructure; b) connectivity; c) logical/software; d) machine learning and algorithms; e) data/information; f) results; g) users/machines settings; and h) environmental sustainability layer<sup>15</sup>. Beyond learning how to write a prompt or use a particular generative AI, at all times, we prefer to offer participants some analytical tools and critical knowledge that we understand will be necessary to navigate the complexities of integrating AI in libraries and other institutions that manage human knowledge. Perhaps the question that best summarizes our work as teachers was insisting on "what AI do our libraries really need?"

#### **5. A workshop on IA and libraries at 55°RNB, Mar del Plata**

In September 2024, ABGRA organized its "55ª Reunión Nacional de Bibliotecarias y Bibliotecarios /

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<sup>12</sup> URL: <https://bcn.gob.ar/>

<sup>13</sup> URL: <https://www.ifla.org/units/latin-america-and-the-caribbean-regional-division/>

<sup>14</sup> Among others that were received, [a] Libraries Facing Technological Change, [b] Public Policies and Regulations on AI: delving into the regulatory frameworks surrounding AI, alongside global perspectives from (documents issued by IFLA and United Nations and regional level such as European Union regulations); [c] Universal Access to Information, [d] Library and Information Science Careers in the AI era, [e] Developing specific AIs for Libraries (open-source software and informational literacy within libraries).

<sup>15</sup> The listed layers deserve both a particular analysis and a comprehensive one linked to their socio-technical functioning [18] [19]. AIs can be analyzed as broad, extended, heterogeneous and complex socio-technological assemblages. As occurred with software (computer programs) in the early stages of digital electronic computing [20] [21], AI are also undifferentiated from the technological devices and systems where they are incorporated. Although it is evident that AI belong to the domain of intellectual developments close to software and the creation of algorithms [22], however, as Kate Crawford [23] insists, it is important to note that all AI also have a physical reality, corporeal, made of natural resources (minerals), material goods, fuels, electricity, labor, infrastructure, supports, logistics, cyber-physical systems (internet of things) and classifications. The existence of AI presupposes, as with any other digital technology, a combination of material and intellectual elements [18] and, therefore, the convenience of analyzing its composition in layers [1].

55th National Meeting of Librarians” (henceforth 55°RNB)<sup>16</sup> in Mar del Plata city. The meeting was titled “Retos y oportunidades: la convivencia entre inteligencia humana e inteligencia artificial en las bibliotecas / Challenges and opportunities: the coexistence between human intelligence and artificial intelligence in libraries” [24]. Between ABGRA (Labour Subcommittee) and Grupo CITEUS, in this edition was presented -for the first time- a specific workshop on “Libraries, Access to Information and Artificial Intelligences”. Coordinated by Pablo Bruno D’Amico and Ariel Vercelli, the workshop had the participation of more than 80 professionals and added the presentation of seven papers, among them, some of the best final works from the both courses described above. In addition, the workshop reserved a one hour time-space to dialogue and report different topics about libraries and AI: these discussions, oriented to rethinking the relationship between AI and libraries, will be published in the proceedings of the 55°RNB and will give rise to a discussion document open to comments. The most debated topics were those related to the increase and improvement of the professional training of librarian, but also topics of authorial rights/copyright, the development of specific AI for librarians (beyond particular uses of any generative AI) and the massive use of chatbots everywhere.

## **6. “Libraries + AI”, an installation for librarians’ IA literacy**

The 55°RNB was an excellent space to carry out another AI literacy action oriented to librarians. Taking advantage of the visit of professionals from all Argentine provinces and different Latin American countries, between Grupo CITEUS, INHUS and ABGRA, a new edition of the historical artefactual exhibition “Las tecnologías en nuestras vidas” / “Technologies in our lives” was organized [25]. The exhibition, opened to the public during the four days of the 55°RNB in the reading hall of UNMdP Central Library, presented the installation “Libraries + AI”, a continuation of the literacy initiatives that had been developing on the topic of AI [25]. The “Libraries + AI” installation was accompanied by installations from other research, extension and public communication projects of Grupo CITEUS: among others, local technological history display Arcades MdP - Tecno-Historia [26] and the artefactual exhibition of the EEST3 Museum (with the implementation value of a TRS-80 Model II Radio Shack computer) [27]. The exhibition in general, and the “Libraries + AI” installation, allowed us to generate an initiative of public communication of science aimed at literacy in AI for the professionals who participated in the national meeting. The exhibition, coordinated by Karina Bianculli, was visited by more than 300 people (including professionals, students and general public), who interacted with artifacts, download papers and listened to the audios offered by the “QR codes” at the different installations.

## **7. Conclusions: next steps in AI literacy for librarians**

Artificial intelligence (AI) represents both a great opportunity and a great danger for all institutions that defend public-community interests. GLAM, and we could also include educational institutions, need to quickly define a strong position regarding AI. In Argentina and Latin America, AI could generate enormous benefits when it comes to combating asymmetries, restoring equality and managing common intellectual goods. In addition to specific policies, regulations and development of AI for libraries, it is very necessary to strongly educate and train professional groups linked to GLAM. Unfortunately, and according to what was previously analyzed, librarians and other professionals linked to GLAM in Argentina (and America Latina) know quite little about AI and, in particular, almost nothing about what effects AI is generating in their jobs. Far from being neutral, transparent, or universal, AI are fostering new and serious problems that librarians and other public servants shall not be aside. Here is a key point. Strong training of these groups in AI is essential if we intend to have good results in the defense of public-community interests, the management of human knowledge and the respect for human rights. But, so far, what results have we achieved? Despite the efforts made so far by ABGRA, INHUS and CITEUS, we are aware that we have only reached a very minor percentage of professionals linked to GLAM. Up to this point, we have positioned a problem about AI and GLAM, in fact we are educating professionals about it, but we need to build better solutions in the immediate future. For the next years, as a continuation of the courses that we have already offered, we are planning a free and self-managed course. But

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<sup>16</sup> URL: <https://abgra.org.ar/55rnb/>

we do not know how effective it can be. Some specialists [28] [29] [30] express that, in general, we will all have to re-learn important parts of our daily lives from the massive use of AI. These technologies enhance librarians and museologists work, but also help students or general public to communicate, select, navigate, collaborate, and use AI for all kind of learning purposes. How can we use AI to achieve and enhance the goals that GLAM and educational institutions have had? We hope that this brief description of our work excites you, serves you in your institution (GLAM / educational) and also serves as an invitation to the international community to join forces to develop better strategies to AI literacy and tools for our public-communitarian institutions. Finally, we should not neglect the problems related to AIs, especially if these are immediately or potentially related to the central functions of educational or GLAM institutions. We must not forget that these institutions remain essential to guarantee access to information, enable social inclusion, offer full availability of culture and strengthen democracies around the world.

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