Beyond automation: the essential role of librarians in the age of generative AI[a]

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Abstract

Gli LLM sono ampiamente considerati strumenti dal potenziale enorme, spesso destinati a sostituire i lavoratori umani in vari settori, compreso, nel prossimo futuro, quello dei bibliotecari. Al contrario, gli LLM hanno più che mai bisogno di professionisti dell'informazione umani che aiutino la società a valutarne i risultati, comprenderne il funzionamento e riconoscerne gli errori e i limiti. I bibliotecari possiedono le competenze necessarie per valutare criticamente i risultati dell'IA, mitigare i pregiudizi e promuoverne un uso responsabile. Questo documento esplora l'evoluzione del rapporto tra biblioteche e LLM, sfidando l'idea errata che essi siano i principali concorrenti nella gestione delle informazioni. Al contrario, le biblioteche possono sfruttare l'IA per migliorare i propri servizi, posizionandosi come centri nevralgici per l'alfabetizzazione all'IA. Educando gli utenti sui limiti dell'IA, sulle questioni etiche e sui potenziali rischi di disinformazione, i bibliotecari possono promuovere un approccio critico a queste tecnologie. In definitiva, questo documento sostiene che l'integrazione dell'IA negli ecosistemi della conoscenza non deve emarginare i bibliotecari, ma piuttosto rafforzarne il ruolo di educatori e mediatori critici.

Parole Chiave: alfabetizzazione all'IA, biblioteche, bias dell'IA, allucinazioni.

LLMs are widely viewed as tools with vast potential, often predicted to replace human workers in various fields including, in the near future, that of the librarian. On the contrary, LLMs need human information professionals more than ever to help society evaluate its results, understand how it works, and recognize its mistakes and limitations. Librarians possess the expertise to critically assess AI outputs, mitigate biases, and promote its responsible use. This paper explores the evolving relationship between libraries and LLMs, challenging the misconception that they are their main competitors in information management. Instead, libraries can leverage AI to enhance their services while positioning themselves as key hubs for AI literacy. By educating users on AI's limitations, ethical concerns, and potential misinformation risks, librarians can foster critical engagement with these technologies. Ultimately, this paper argues that AI's integration into knowledge ecosystems must not sideline librarians, but rather empower them as educators and irreplaceable critical mediators.

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1. Introduction

In recent years, Generative Artificial Intelligence (henceforth: GAI) tools have increasingly spread across domestic, commercial, and public domains. This rapid expansion opens up new opportunities but also introduces significant ethical, cultural, and social risks. On the one hand, the increasing sophistication of these tools appears to threaten numerous professional roles, including that of the librarian. On the other hand, risks related to an incorrect or unconscious use of AI may include the dissemination of fake news, ethical misuse in scholastic or academic contexts, and the reproduction of errors and biases absorbed by the dataset of LLMs. In this sense, rather than representing the weak party, librarians are uniquely positioned to become essential allies and play an important role in shaping a conscious use of such powerful tools. Their skills in fact-checking, bias checking, scrupulous checking of the reliability of sources and information retrieval become even more important when it comes to critically weighing the activity and output of GAI softwares. Furthermore, although such a development of AI could not have been foreseen when the Sustainable Development Goals[1] (SDGs) were enacted, among the goals of the United Nations 2030 Agenda, we could affirm that this vision goes in the same direction as goals n.4 - quality education, and n.9 - industry, innovation and infrastructure. Libraries are one of the main headmasters for lifelong education and life-long learning, especially in the western countries, and their role in Goal 4 of the UN 2030 Agenda seems beyond question. At the same time, librarians (especially academic ones) can benefit from the use of AI-based platforms for retrieving scholarly resources.

In the following sections, we will explore the relationship between libraries and AI and vice versa, by weakening the idea that they are enemies of one another competing in the realm of information retrieval. We will then discuss how GAI can benefit from the existence of libraries, and how libraries can benefit from the use of AI. Finally, we will show the gap that separates AI from a good librarian, and why their role remains irreplaceable to this day.

2. Libraries and AI. Enemies or allies?

What is generative AI? The answer is not as simple as one might believe. Even if a full framework is beyond the aim of this article, we need to know at least *what* GAI *is not*. The application of the attribute of 'intelligent' to AI, for instance, is disputed[2]. Indeed, it is necessary to ask whether intelligence has to do only with *planning*, *learning*, *adapting* and *interacting* or also with *awareness*, *consciousness*, *emotional* and *moral life*. Most scholars, albeit for

[1] United Nations, *Resolution adopted by the General Assembly on 25 September 2015. Transforming our world: the 2030 Agenda for Sustainable Development A/RES/70/1*, 2015, https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf.

[2] See, for instance: F. Chollet, *On the Measure of Intelligence* in «arXiv», 2019, doi:10.48550/arXiv.1911.01547 and F.M. Cianciaruso, *L'intelligenza artificiale è realmente intelligente? Un percorso tra embodiment e macchine linguistiche* in «DILEF», IV, n.4, 2024, doi: 10.35948/DILEF/2024.4359.

different reasons, do not believe in the full application of the concept of 'intelligence' to AI tools.

Pezzulo et al.[3], Manyika[4] and Alombert[5], for instance, think that GAI simulates tasks but lacks genuine understanding. Cicero[6], together with García Peñalvo[7] et al. share the idea that GAI excels in rule-based and mimetic tasks yet falls short in creativity, autonomy, and subjective experience. Yet, according to Cianciaruso[8], the watertight bulkhead that separates formal computational processes from a dimension of meaning is abolished by embodiment, that is, by the embedding of mental content – and thus of its decoding – in the human sensorimotor system. This is because «the data sets on which the machine performs the training processes, are the product of the culture of human agents, and, therefore, embodied»[9]. GAI would thus be a more than syntactic intelligence that is not limited to symbol manipulation. In other words, if it is true that *nihil est in intellectu quod prius non fuerit in sensu*, and datasets were trained with data from creatures endowed with sentience, then that of AI is an *intellectus* in its proper sense. According to embodied cognitive sciences:

> The selection of the data and examples from which the machine is trained are in fact external to the machine itself, as they are the result of an external choice, prior to the training, and, therefore, to the implementation of the neural model[10].

However, we may doubt that indirect, third-person embodiment can be sufficient, as well as that all datasets are always the result of sensations of creatures with adequate sensorimotor apparatus. If we adhere to this last conception, we must admit that indifference to the semantic contents of inputs and outputs, and especially the indifference to truth (understood in the Aristotelian sense of '*adaequatio intellectus et rei*'), still mark a distinction between human and machine intelligence, and between the two concepts of "understanding". Moreover, although embodiment implies continuity between human and artificial neural architecture, the alleged rootedness would remain parasitic to the human agent and lack autonomy. Conversely, if we adhere to the opposite position, we will instead have a harder time recognizing this intelligence as artificial, unless we admit that it is an artificial intelligence applied on human mental content (i.e. rooted in human motor-sense system).

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[3] G. Pezzulo, T. Parr, P. Cisek, A. Clark, K.J. Friston, *Generating meaning: active inference and the scope and limits of passive AI*, «Trends in Cognitive Sciences», 2023, doi: 10.1016/j.tics.2023.10.002, pp. 97-112.

[4] J. Manyika, *Getting AI Right: Introductory Notes on AI & Society*, «Daedalus», CLI, n. 2, 2022, doi: 10.1162/daed_e_01897, pp. 5-27.

[5] A. Alombert, *Panser la bêtise artificielle. Organologie et pharmacologie des automates computationnels* in «Appareil», XXVI, 2023, doi: 10.4000/appareil.6979, pp. 1-18.

[6] F. Cicero, *L'italiano delle intelligenze artificiali generative*, in «Italiano LinguaDue», XV, n,2, doi: 10.54103/2037-3597/21990, pp. 733-761.

[7] F.G. García Peñalvo, F. Llorens-Largo, J. Vidal, *La nueva realidad de la educación ante los avances de la inteligencia artificial generativa* in «RIED: Revista Iberoamericana de Educación a Distancia», XXVII, n. 1, 2024, doi: 10.5944/ried.27.1.37716, pp. 9-39.

[8] F.M. Cianciaruso, *L'intelligenza artificiale è realmente intelligente?* cit., p. 4.

[9] Ivi, p. 9.

[10] *Ibidem*.

Similar considerations can be applied to the appellation of 'oracle' to GAI[11]. Even if our perception of use may resemble that of someone questioning an oracle, this metaphor can lead us to mistakes. If an oracle has a *superhuman ability* to know *human things* (i.e. a knowledge rooted in the sensorimotor system), analogy works (even if, in order to do this, he would have to know an endless number of things, and likely have had a very long life). If, however, an oracle is someone divinely inspired, that is, he reports, as if in ecstatic possession, things he has not experienced himself, GAI tools could not be properly called 'oracles'. GAI possesses and reworks, even creatively, knowledge that it has not personally experienced, but that some human being has likely experienced, and therefore GAI it does not possess this information as a divine gift. In other words, its frightening "intelligence" (and, as Roncaglia observes, creativity[12]) derives from the *reworking and connection of elements* that probably we had not thought to process or link together. This is far from insignificant, but is super-human more than beyond-human[13]. Moreover, an oracle knows the truth and gives it to the listener through riddles; GAI gives clear answers that can be made even simpler, but they don't really know the truth.

Neither the definition of 'encyclopedia' as a structured, homogeneous, and verified repository of information, seems good for GAI, not so much because of the amount of data, but because of how they are linked and how they are provided to the user. Rather, it is the datasets that the GAI draws on that are (potentially) similar to encyclopaedias.

Finally, even the use of the term 'calculator' could be problematic in some cases, especially when understood in a narrow sense. The principles on which LLMs are programmed are best defined as an integration of mathematical functions and probabilistic (usually not logical) algorithms that enable the simulation of cognitive capabilities such as machine learning, rather than mathematical problem solving. As Manna notes, in science majors such as chemistry, mathematics and physics,

> ChatGPT often gets the answers wrong: although it may seem counterintuitive, services like ChatGPT in fact do not do the math right, because they do not reason logically and mathematically, but generate their answers according to probabilistic criteria. In these cases, for algebraic exercises some students rely on other software (some actually available long ago), such as Photomath: an app that automatically does math exercises from a picture of a function written in the notebook or on the blackboard[14].

Of course, as Roncaglia wrote:

> the results obtained by ChatGPT in tasks that require complex updates and evaluations, such as working on mathematical or logical proofs, improve greatly if the system undergoes specific training in breaking down complex tasks into a sequence of simpler tasks[15].

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[11] G. Roncaglia, *L'architetto e l'oracolo. Forme digitali del sapere da Wikipedia a ChatGPT*, Laterza, Bari-Roma, 2023.

[12] See *Ibidem*, p. 107.

[13] I mean that GAI is faster than any human being and smarter than any individual human being, but what it is capable of doing remains human in its methods. It is not "inexplicable".

[14] N. Manna, *ChatGPT sta cambiando la scuola* in «Il Post», 31/03/2025, https://www.ilpost.it/2025/03/31/chatgpt-intelligenza-artificiale-scuola/?utm_medium=social&utm_source=facebook&utm_campaign=lancio.

[15] G. Roncaglia, *L'architetto e l'oracolo*, cit., p. 99.

as it has been doing automatically for some time now.

So, GAI is not able to be called easily, and without problematizing, neither an intelligence (and in a certain sense not even an artificial one! - consider the embodiment of their data sets), nor an oracle, nor an encyclopedia, nor a calculator.

Yet, what we are here more interested in investigating is what we can reasonably expect AI to help us with and what it does not, and how our approach to it can make it as useful and less dangerous as possible. According to Walter Riviera, italian AI Engineer and expert, we will define these tools as «excellent text processors [...] who do not give the most correct or sensible answer but the most probable one»[16]. For this reason, we can trust the tool for

> All tasks that have to do with syntax, i.e. text manipulation, summaries, translations, alternative sentences to express the same thing, writing an official e-mail to the boss...for these things we can feel quite comfortable. When the need is on the content, on the semantics, on the meaning of what we are expressing...maybe I would give it a read before sending the e-mail[17].

It is no chance that this is the use that large software platforms such as Adobe, Google, and Amazon have made of it: the first one with pdf documents, the second one with e-mails, the third one with customer reviews of products. Large quantities of sentences, even in different languages or codes, synthetised for a broad understanding that optimises the reader's time. This is exactly what S.R. Ranganathan, one of the founders of the modern library science, called for in the fourth of his famous five laws of library science ("Save the time of the reader"[18]). Thus, libraries too, especially digital ones, dealing with large amounts of information and text, can benefit from GAI. If we consider how the role of manipulating texts is often performed admirably by GAI, many information-related professions seem to be seriously endangered by the emergence of these platforms. Among these is certainly that of the librarian, understood above all as a mediator between the user and the (physical or digital) document, and as a cataloguer clerk.

As was already written elsewhere[19], different AI software can support librarians roughly in the performance of nine tasks, also through the use of specific plugins:

1. Automation of cataloguing and indexing, creation of metadata, abstracts and keywords, error correction; more generally, acceleration of mechanical entries and processes;
2. Communication and marketing (producing from scratch, or revising newsletters, graphics, claims, copy, logos, social media posts, press releases...);
3. Personalised recommendations and reading suggestions for users from the library catalogue (using machine learning algorithms to analyse reading behaviour, keyword

[16] W. Riviera, *Quando sbaglia l'intelligenza artificiale? Abbiamo messo alla prova ChatGPT e Deepseek: gli errori*, https://www.youtube.com/watch?v=89C0jCgtBuk, 27/02/2025.
[17] *Ibidem*.
[18] S.R. Ranganathan, *The Five Laws of Library Science*, Madras Library Association, Chennai 1931.
[19] M. Capozza, M. Mander, P.F. Miccichè, F. Viazzi, *Intelligenza umana e artificiale: le biblioteche pubbliche creatrici di una tela in divenire* in Associazione Biblioteche Oggi (edited by), *Biblioteche Oltre. I nuovi territori dell'interdisciplinarità (Atti del Convegno delle Stelline 2025)*, Bibliografica, Milano 2025, doi: 10.53134/9788893576765-311, pp. 311-323: 317.

extraction and association between related readers), including ChatBots and virtual voice assistants;
4. Digitisation of paper documents and optical recognition of alphanumeric characters (Optical Character Recognition, OCR), shapes, signs, notes or neumes hard or slow to decode;
5. Information retrieval: finding papers, monographs, documents on a certain topic;
6. Speech synthesis and tools for accessibility;
7. Analysis of data, reading behaviour, trends, demand forecast from Library Management Systems (LMSs);
8. Advice for the librarian about the organisation of events in the library, the management and maintenance of equipment, and the arrangement of space and furniture (better arrangement of collections in shelves and shelves in physical space);
9. Gamification, augmented virtual reality experiences, customised learning paths.[20]

The list seems to encompass almost all the tasks of the librarian, legitimising a certain fear about the future of the profession. Nevertheless, so far the application of AI to library work has been rather limited. The fact that platforms can potentially help with all these tasks, in fact, does not mean that they can do so without the need of any human supervision, nor that they can always do it better or faster than any human worker. Relieving librarians of the more mechanical and repetitive tasks in order to leave them with the more social and 'human' tasks is a goal that has been pursued for several years now with multiple Information Technologies (IT) tools (RFID - Radio Frequency Identification tag and readers, electronic trolleys, Library Management Systems, self-checkout stations...). The same purpose drives the use of GAI in libraries, allowing staff to focus on tasks requiring human creativity and supports strategic decision-making with actionable insights[21]. Nevertheless, this has made the human irreplaceability of the librarian even more evident where he or she has been able to express his or her full potential. The reason for that is not only that machine operations are always liable to mistakes, but that libraries are not simply repositories of books to be kept.

Even apparently mechanical tasks, moreover, are only so to a certain extent. As Ciocci et al. note, «keyword production is thus, by its very nature, an activity of interpretation»[22]. It is not enough to count how many times a certain word appears in the text to state with certainty the subject matter of a document. Even the creation of metadata, ontologies and classification systems, although often facilitated by software, is therefore not a totally-neutral operation, nor one that can be relegated to machines without human supervision. Conversely, librarians, although much slower in reaction time, are equipped with the specific discerning skills needed to structure the architecture of the datasets from which the processor draws. If libraries can make use of AI, in short, it would be much more useful to make use of libraries for those who want to consciously use AI.

[20] See F. Boateng, *The transformative potential of Generative AI in academic library access services: Opportunities and challenges*, «Information Services and Use», XLV, n. 1-2, 2025, doi: 10.1177/18758789251332800, pp. 140-147.

[21] Ivi, p. 140.

[22] D. Ciocci, M. Squarcione, F. Viazzi, *Biblioteche e AI Literacy: alcune riflessioni sulle nuove competenze per la mediazione informativa* in «Biblioteche Oggi Trends», X (2), 2024, doi: 10.3302/2421-3810-202402-076-01, pp. 73-84.

But the relationship between libraries and AI is not limited to performing mechanical tasks faster and more efficiently. Public and academic libraries can assume the role of antibodies - better, vaccines - to an uncritical use of AI. This may happen by AI literacy courses, showing the limitations of conducting purely AI-based source research and the benefits of using human eyes and librarian expertise, especially in sensitive and specific situations. But also through warning against the underrepresentation of categories and exceptions that are considered negligible but are not so for science. Furthermore, librarians trained in AI can easily show how some of the answers considered 'original' by GAI are not really so (even if it is "in good faith"), and it is therefore dangerous to delegate certain tasks to them without checking. In an interview with eight library employees, all respondents «were aware of so-called hallucination problem in generative AI (generation of nonsensical or untrue content) and biases embedded in these systems, but stressed that libraries should learn about this technology and use it to their benefit»[23].

GAI limits are manifested both with respect to the limits of the machine as a machine, and also as a platform operated by large corporations interested in profit. According to Parisi & Dixon-Roman, the ethical violations of GAI are inherent to the economic ideology underlying the development of these technologies[24].

Libraries, in short, can and hopefully must become hubs for AI literacy for ordinary people, and in particular, for those who want to use these tools to research, produce or even just get new knowledge. Librarians can share awareness of the mechanisms underlying AI and their implications for everyday and scientific use, and this is their added value.

3. All that glitters is not gold. Intrinsic and extrinsic limits of Generative AI

Among the operations that GAI cannot do, some cannot be performed simply because it is a machine and not a human, and certain because it is a machine programmed in a certain way rather than another. These limitations reveal what we can reasonably expect from LLMs and especially because, as we already said, it is not an oracle.

Alongside the list of what AI can do for libraries, we will therefore have to draw up a list of what it cannot do, and is unlikely ever to be able to do. Although the following list is not exhaustive, it would include:

1. Setting goals for oneself;
2. Acting and "reasoning" without prompting;
3. Access to anything that cannot be converted into digital data (such as sensations themselves: holding a book, leafing through it, enjoying it, etc.);
4. Have an original and "felt" ethical judgment;
5. Empathy;
6. Work beyond minimum data units.

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[23] M. Hosseini, K. Holmes, *The Evolution of Library Workplaces and Workflows via Generative AI*, «College and Research libraries», LXXXIV, n.6, 2023, Url: https://crl.acrl.org/index.php/crl/article/view/26094/34016?utm_source=chatgpt.com https://blog.library.gsu.edu/2024/12/20/librarians-shape-ethical-research-in-an-ai-driven-world-23-24-impact-report/?utm_source=chatgpt.com.

[24] L. Parisi & E. J. Dixon-Roman, *Data capitalism, sociogenic prediction, and recursive indeterminacies*, in P. Mörtenböck & H. Mooshammer (dds.), *Data Publics Public Plurality in an Era of Data Determinacy*, Abingdon (UK), Routledge. 2020, doi: 10.4324/9780429196515-4.

About this last point, we must consider that, as a text string processor, most LLMs works through tokenization, and so are unable to recognize what is at a higher level of specificity than the token itself. In cases where tokens correspond to syllables or clusters of letters, even sophisticated tools such as ChatGPT may become incapable of formulating anagrams, alphabetizing similar words, recognizing the position of letters within a word[25].

Moreover, AIs' operation is more like that of a probabilistic forecaster than a supercomputer. If we ask most AI tools to generate an image of a clock showing 5:35 a.m., most of them will be unable to produce a right corresponding representation, while being able to instruct (verbally) someone on how they should draw it. This happens simply because most of the analog clocks "learned" from the dataset indicate other times (especially 10:10 a.m./p.m. like in Figure 1).

If we provide an LLM with the complete works of a certain author, it could certainly give us a list of the most frequently occurring words, but that does not mean it could determine whether or not they would be useful for our research. The word 'music', for example, never appears in Dante's entire *Divine Comedy*, yet there are numerous references to music, described using metaphorical expressions, and a lot of books were written about the fascinating use of music images in Dante's *Commedia*. A librarian knows this. For the same reason, GAI can pass off as original what is not, giving rise to copyright issues. If we ask a GAI to generate an

Figure 1: AI-generated pictures (Dall-E 2).

original story, it is very likely that it will give us existing stories, or pieces of them. The risk of unintentional plagiarism is so very high.

Thus, Daniela Tafani correctly observes that one cannot speak of 'hallucinations' for what are 'outputs of software architecturally incapable of distinguishing truth from falsity'. This calls for a shift in terminology: what is often called a 'hallucination' may simply

[25] At the time of writing, the free version of DeepSeek and Chat GPT are incapable of doing so, while Gemini succeeds.

be the predictable outcome of a probabilistic system devoid of truth-evaluating mechanisms[26].
If the control of these tools were not in the hands of large and rich companies, we could hope that the liberation of people from the most mechanical and repetitive jobs, and their reliance on intelligent machines, would become a means of emancipation for mankind, ensuring that humans do not behave like machines and machines like humans. At least not for the time being, and therefore Waelen considers AI ethics as a form of critical theory[27].

The highest risk, especially in the public administration, is that of overestimating the potential and possible uses of AI by only increasing the coffers of the (energy-intensive) hi-tech multinational companies.

> Among the customers to be beguiled and taken hostage as soon as possible, there are certainly - due to the volume of financial resources managed, the range of activities to be automated, and the areas of private life over which surveillance practices can be extended and consolidated - governments and public institutions. So it happens, at the same time, that McDonald's realises that artificial intelligence systems are not up to the task, at this moment, of taking an order for a hamburger - and therefore suspends an experiment involving more than 100 points of sale - and that in Italian schools experiments are started that invest such systems with the role of 'new tutors for students'. In order to understand such a picture, it may be useful to ask oneself from which private companies today come the push to introduce immature and non-functional technological products into schools and universities, with what narratives and what reconceptualisation of education companies accompany the promotion of such products, and why schools and universities so easily give in, forgetting the very nature of their business, to the new sellers of 'snake-oil AI', i.e. of applications that do not work (sometimes, simply because they cannot work)[28].

But what can libraries concretely do to make use of artificial intelligence for their activities and to help users make informed use of it? As fact-checkers, librarians are used to critically examining the chain of sources and judging with suspicion information that is lacking. In the latter case, they can teach where and how to look for documents that confirm or disprove the output provided by the machine. Such practices can be implemented both in daily reference activities and through free training courses open to the public, developing responsible search practices. It is important that users and citizens know that they can rely on librarians for these tasks. It is equally important, on the other hand, that librarians are trained in AI Literacy, understood as «teaching how to communicate with the machine, enabling its use, but also in understanding why and on what technological mechanisms, the machine communicates»[29]. Moreover, as librarian Amy Chatfield notes, «there are a lot more context clues behind the scenes than people

[26] See D. Tafani, *Omini di burro. Scuole e università al Paese dei Balocchi dell'IA generativa*, «Bollettino telematico di filosofia politica», 2024, doi: 10.5281/zenodo.13923820.
[27] R. Waelen, *Why AI Ethics Is a Critical Theory*, «Philosophy & Technology», XXXV, n. 9, 2022, doi: 10.1007/s13347-022-00507-5.
[28] D. Tafani, *Omini di burro*, cit.
[29] S. Cuomo, G. Biagini, M. Ranieri, *Artificial Intelligence Literacy, che cos'è e come promuoverla. Dall'analisi della letteratura ad una proposta di Framework* in «Media Education. Studi, ricerche, buone pratiche», XIII, n. 2, 2022, doi: 10.36253/me-13374, pp. 161-172: 163.

might notice, training AI for each specific context and situation might take a lot of time and resources»[30].

On the other hand, librarians and information mediators can benefit for sure from AI-based tools such as Elicit, Perplexity, SciSpace, Scite, Paper Digest, Trinka, Consensus for literature review, research reports, State of the art, comparison, bibliographic research, editing and revision, grammar and plagiarism check. Should we admit that these tools do their job better than librarians? Probably yes, but only as long as we consider the librarian's activity only as source finding and not as a facilitating interaction with other scholars and assisting them for all stages of research. It is therefore not only necessary for librarians to be trained in the potential and limitations of GAI, but also to consider themselves (and be considered by the community) for the contribution they can actually make.

4. Conclusions

Even if Generative AI is undoubtedly capable of facilitating the work of librarians and researchers, this doesn't imply that it is ready to take over the library profession entirely. Instead, evidence suggests that it could be a useful tool to support research activities, cataloguing and so on. Consciously using GAI for information retrieval, translations, and the production of summaries and reports can be very useful to academic research but is not without risk, and many mistakes are still produced by the machine. It's part of librarian skills to be able to identify flaws and red flags in the information source chain. This is why it is important for librarians to be up-to-date on the benefits and biases of these tools, even if they evolve very quickly.

If librarians can benefit from AI, also the reverse is true. Librarians could therefore be good trainers on the biases of GAI as information search tools, and they should be involved as teachers in AI literacy courses. Moreover, librarians cannot be replaced by GAI since their role goes beyond their skills as information professionals, encompassing a human and social dimension that significantly impacts people and communities. Rather than replacing librarians, GAI highlights the need for their expertise more than ever. As guardians of ethical information practices and facilitators of critical engagement, librarians have a key role to play in guiding society through the complexities of the AI age.

[30] M. Hosseini, K. Holmes, *The Evolution of Library Workplaces and Workflows via Generative AI*, cit.