



A member of the public at the Punggol Regional Library. Librarians have a role to play in aiding library users to navigate the complexities of the AI age, in order for Singapore to achieve its goal of harnessing artificial intelligence for the public good, say the writers. ST PHOTO: KUA CHEE SIONG

# In Singapore, librarians have new jobs in an age of AI

The library must remain a key resource in Singapore's push towards AI literacy and librarians must retool to this new world.

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Writing about school librarians in New York in a 2015 article in the *Journal Of Curriculum Studies*, education researcher Jessica Hochman points out that reduced funding for librarians results from a misconception of the stereotypical "shushing, lone school librarian".

With the removal of the librarian's counter at our public libraries, we too in Singapore may be deceived into thinking that computers and robots have replaced librarians in this digital age driven by artificial intelligence (AI).

However, Dr Hochman notes that in an increasingly digital world, librarians are "even more necessary to scaffold the tools and teach new forms". This observation remains true today in an age of AI.

With increased digitalisation and AI-accelerated shifts, individuals need to be highly adaptable and flexible, equipped to know how to seek information and continually upgrade their skills and knowledge.

To be able to navigate the digital space and utilise AI for public good, an aspirational goal of the Singapore National AI Strategy 2.0, Singaporeans need to possess basic literacy as well as digital literacy skills, including an understanding of how AI works and the ability to utilise relevant tools and platforms for work and in their personal lives.

## A NEW LITERACY

This is an urgent imperative most of us appreciate. In a study of the lived literacy experiences of Singaporeans conducted by one of us, individuals constantly spoke of the need to learn to engage in new literacy practices at work.

One 55-year-old supply chain manager, who moved from the army to the private sector at the age of 43, shared that he has to regularly toggle between multiple systems such as Microsoft Excel, Quicksense, a data analytics tool, and System Applications and Products in Data Processing, or

SAP, for managing business functions, to get his work done.

This need to constantly learn how to navigate new tools and platforms is evident in other areas such as healthcare, where we are seeing increasing use of AI to improve administrative and system productivity as well as patient outcomes.

In its idealised state, generative AI will be employed in more industries and job families to improve output and uplift productivity. The question is of adoption by Singapore firms and workers.

Highlighted in the Skills Demand for the Future Economy report is a list of required apps and tools for developing digital solutions for different jobs, which aims to equip Singaporeans with updated information so they can undertake the necessary training. Yet Singaporeans should not walk alone in this journey. Librarians have contributed to building a digitally literate society and are in a position to support our citizens' lifelong learning by providing guidance, education and access to resources.

For example, in 2013, the National Library Board (NLB) developed the Sure (Source, Understand, Research, Evaluate) framework to evaluate news reliability. Librarians were involved in the development of the framework and in actively training students and the public in the initial years of its release. Resources created and curated by librarians continue to be publicly available. Libraries must now similarly be enlisted in Singapore's push towards AI literacy.

While public, academic and school librarians have different roles in their contexts, they are all trained to encourage reading engagement, develop information literacy skills and help individuals acquire capacities to utilise new technologies for learning. The raison d'être of librarians remains even in an age of AI: to seek to understand societal and individual information needs and to support patrons' knowledge acquisition and generation needs for an unknown future.

The NLB Libraries and Archives Blueprint 2025 (LAB25) has led in the transformation of the library, which includes the creation of learning communities where individuals can acquire new skills and tools. Workshops for seniors designed to equip them with digital skills have been rolled out.

Librarians, in this new vision, do not just deal with books but support individuals by building community networks, designing workshops to support engaged

reading and learning, creating podcasts and videos, and making use of data and machine learning to personalise book recommendations and learning experiences for patrons.

## STEWARDS IN THE AGE OF AI

Librarians have a role to play in aiding library users in navigating the complexities of the AI age, in order for Singapore to achieve its goal of harnessing AI for the public good.

Studies have shown that basic literacy is the precursor to the acquisition of digital literacy. As such, librarians must continue with their core role of supporting engaged reading. Librarians must, as they already do, make use of back-end user analytics to improve book recommendations and enhance user experience.

More than that, librarians can be stewards aiding to curate useful resources in a world overflowing with information. While algorithms can surface the

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## BUILDING AI INFORMATION LITERACY

The librarian's second role as a trainer in information literacy has added significance. Information literacy goes beyond the ability to decipher fake news, which is a common and important part but a narrow understanding of its constituents for success.

Rather, information literacy includes the ability to search for and critically evaluate information. Furthermore, basic AI literacy requires individuals to critically assess AI-generated content, question assumptions and understand the limitations and biases inherent in AI systems.

For example, a Unesco report, provocatively titled *I'd Blush If I Could: Closing Gender Divides In Digital Skills Through Education*, highlights how gender stereotypes and abuses can be perpetuated through coding of AI software.

The report title borrows from a response by the female-voiced Apple virtual assistant Siri to a human user telling the voice assistant: "Hey, Siri, you are a bi\*\*\*!" Siri has since been updated to respond more neutrally to call out instances of verbal abuse, but this illustrates how online space can exacerbate offline biases.

Information literacy training can include such critical evaluation of AI technologies – including the multiple aspects in the development and deployment of AI, whether technical, practical or ethical.

Beyond training for information literacy, librarians can also expose patrons to different apps and help them learn how to look for and evaluate content from varied tools that they can use for their learning or work. While many are familiar with ChatGPT, fewer have knowledge of other generative AI models such as Perplexity.AI, which offers

sources for its responses, or Copy.AI, which is marketed as a copywriting and marketing tool.

Different AI systems, trained for diverse purposes on different datasets, generate responses suitable for varied purposes. In a work context, being able to evaluate and understand how to use these different tools and master them is central for productivity and impact.

While this all sounds new, shifts in the role librarians play to be a stronger partner to library users are already under way. Librarians at the National Institute of Education library offer personalised workshops for students and researchers on how to conduct online literature searches, introducing them to different platforms for conducting effective searches and explaining the affordances and limitations of each database.

Common feedback from participants? "I didn't know that I didn't really know how to search until I attended the workshop."

In the AI era, librarian training needs to be supplemented with continuous strategic training initiatives to harness AI to enhance information services, meet the evolving needs of library users, and stay updated on the latest advancements in AI. In Singapore, the Wee Kim Wee School of Communication and Information offers an established library training programme, the Master of Science (Information Studies), which serves as a cornerstone for librarian training in the region.

Specialised training for librarians in the years to come should include leveraging AI for tasks such as cataloguing, user support and predictive analytics to facilitate automation and productivity, integrating AI chatbots for user assistance and recommendation services, and evaluating the effectiveness of deployed AI tools.

The humble insistence of most librarians of wanting to work quietly in the background tends to blinker our understanding of the crucial work they do to promote digital literacy as well as support knowledge acquisition and production.

Librarians equipped with AI training and professional development can smoothly navigate our transition to an AI-enhanced environment. At the same time, policymakers, educators and the public can be more aware of the potential contribution of the librarian as a key enabler in our move towards digitalisation and harnessing AI for good.

As Singapore seeks for its citizens to be future-ready, let's not forget the essential role of the librarian in preparing our students, workers and citizens.

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