

Insights: Librarian attitudes toward AI



Key Findings

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Introduction

Since the launch of ChatGPT in 2022, many more artificial intelligence (AI) and generative AI (GenAI) tools have entered mainstream use, including among librarians.¹ Given the widespread use of AI by students and faculty alike, academic institutions have had to decide on their approach to the use of AI, and librarians play a vital role in the decision-making process as well as the rollout of institutional guidelines.

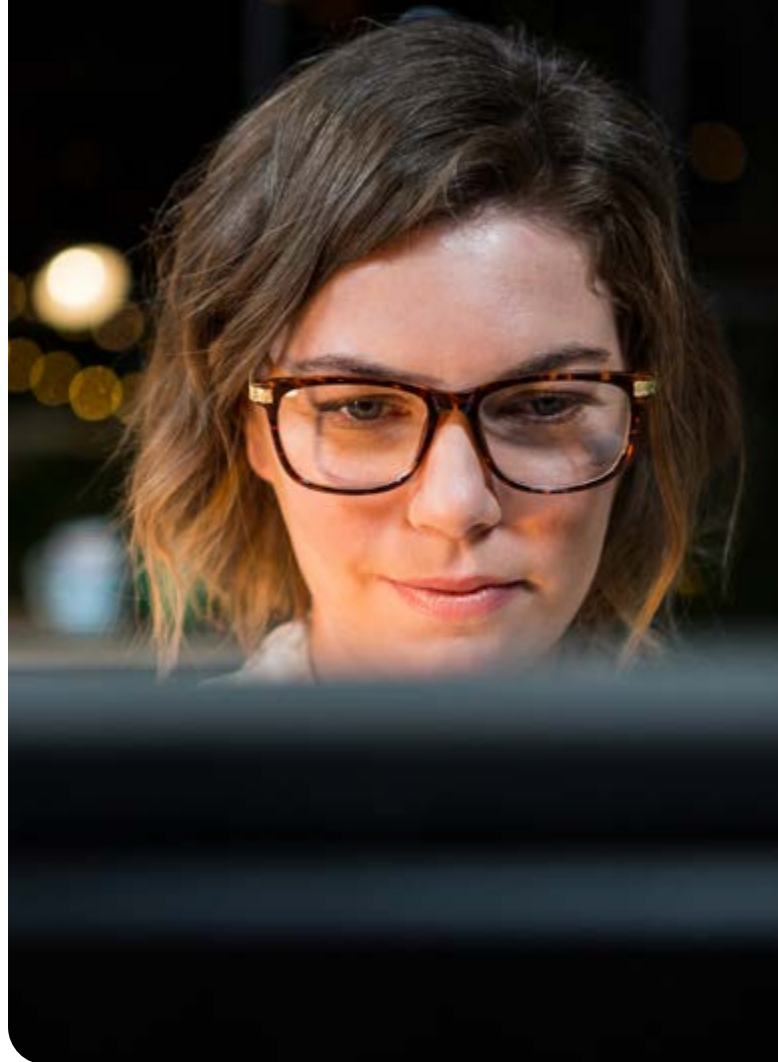
What is GenAI?

GenAI, short for generative artificial intelligence, refers to a category of artificial intelligence systems and models that have the ability to generate data, content, or other outputs that are similar to those created by humans. These AI systems are designed to produce new and original content rather than simply process or analyze existing data.²

The AI landscape continues to evolve rapidly, and the range of potential applications for librarians and others in academia is still growing. It is important to monitor the views and behaviors of those who are, or could be, using AI and those with responsibility for guiding its ethical use, including librarians. In the report *Insights 2024: Attitudes toward AI*, we aimed to do this by surveying nearly 3,000 people working in academia and in health (clinicians) from around the world.

The research examines attitudes towards artificial intelligence (AI), including generative AI (GenAI), covering its attractiveness, perceived impact, the benefits to users and wider society, the degree of transparency for users to be comfortable using tools that capitalize on the technology, and the challenges they see with AI. It also looks at the current usage, and what would help increase trust in AI tools.

The full report explores these themes across three chapters and covers the views of all respondents. You can read a summary of the librarians' views here.



Online survey



Insights 2024: Attitudes toward AI

When: December 2023 to February 2024
What: 15-minute online quantitative survey
Who: 2,999 respondents from across 123 countries

This Key Findings report is based on 225 librarians.

(Librarian responses are not part of the full report.)
One librarian preferred not to say where they live. They are included in the total but do not appear in regional breakouts.

Results: To improve representativeness of our sample, we weighted responses at the regional level against OECD researcher populations.

Highlights

Almost all librarians are familiar with AI tools. Of those familiar with AI, most have already used it, many for work purposes. For those who have yet to use AI, lack of time is the main reason, and most expect to use AI in the coming two to five years.

96% 

Have heard of AI (including GenAI)

60% 

Have used AI

41% 

Have used it for work purposes

10% 

Are very familiar with AI and have used it a lot

48% 

Of those who have not used AI cite a lack of time as the reason

78% 

Of those who have not used AI expect to do so in the next two to five years

Librarians perceive AI positively in general, and most expect a major impact as a result of the technology. They believe it will help...

94% 

Accelerate knowledge discovery

93% 

Rapidly increase the volume of scholarly and medical research

89% 

Provide cost savings to institutions and businesses

83% 

Increase their work quality

78% 

Have a transformative or significant impact on their area of work

Librarians are concerned about misinformation and the ethical implications of AI, among other areas, highlighting points of attention for developers and institutions.

88% 

Have concerns about the ethical implications of AI use

92% 

Are concerned AI could be used for misinformation

84% 

Believe AI could erode critical thinking skills

84% 

Are concerned AI could cause critical errors or mishaps

Librarians share the specific actions that increase their trust in AI and comfort using it. By taking and communicating these factors, providers of AI tools can support librarians in using the technology.

84% 

Expect to be told whether the tools they are using depend on generative AI

66% 

Say citing references by default (transparency) would strongly increase their trust in that tool

33% 

Consider the lack of accountability over the use of generative AI outputs a top-three disadvantage

39% 

Ranked robust governance on data and information used to train the model highest for increasing their comfort using an AI tool

The current GenAI landscape



“Instruction and reference librarians, with information literacy and behavior expertise, have an opportunity to guide university communities through ethical adoption of AI tools.”¹

Justine Martin and Matt Armstrong

- ▶ 96% of librarians have heard of AI (including GenAI)
- ▶ 60% have used AI and 41% have used it for work purposes
- ▶ 10% are very familiar with AI, i.e. they've used it a lot
- ▶ 92% have heard of ChatGPT, making it by far the most well-known AI product
- ▶ 35% have used ChatGPT for work purposes
- ▶ 48% of those who have not used AI cite a lack of time as the reason
- ▶ 52% have mixed feelings about AI and 35% see it as a welcome advancement

Librarians are aware of advances in AI technology and tools, and most have used AI, either in their work or for non-work purposes. Whilst librarians have mixed feelings about AI the general sentiment is one of optimism, with librarians identifying many benefits and positive impacts of the technology. However, they do have concerns, including around the ethical implications of its use.

Awareness of GenAI tools

Almost all (96%) librarians globally have heard of AI, with awareness fairly consistent across regions. Only 10% globally are very familiar with AI, having used it a lot. Significantly more librarians in North America (72%) are somewhat familiar with AI, having experimented with it, compared to 55% globally.

Librarians in Europe are least likely (30%) and those in Asia Pacific most likely (51%) to have used AI for a specific work-related purpose (41% globally). Those in North America are more likely to have used AI for a non-work-related purpose, at 32% compared to 19% globally.

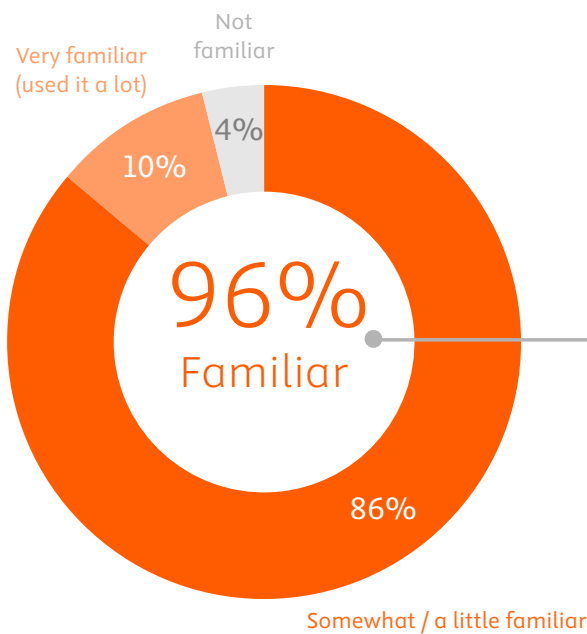
When it comes to specific AI tools, librarians are most familiar with ChatGPT (92%). This is also the most well-known AI tool across all ~3,000 respondents who answered the survey. Familiarity is highest in North America, where all (100%) librarians reported having heard of ChatGPT.

A similar pattern emerges for other AI tools, where librarians in North America are most likely to be familiar: Bing Chat (52% globally, 66% in North America), Google's Bard (51% globally, 68% in North America) and Semantic Scholar (32% globally, 48% in North America).



This does not, however, translate into usage. Globally, 35% of librarians who have heard of AI have used ChatGPT for work purposes. This is highest in Asia Pacific (41%) and lower in North America (31%) and Europe (26%). Usage globally falls steeply for the other tools, including Bing Chat (11%), Google's Bard (10%) and Semantic Scholar (8%).

Familiarity with AI



Current usage of AI

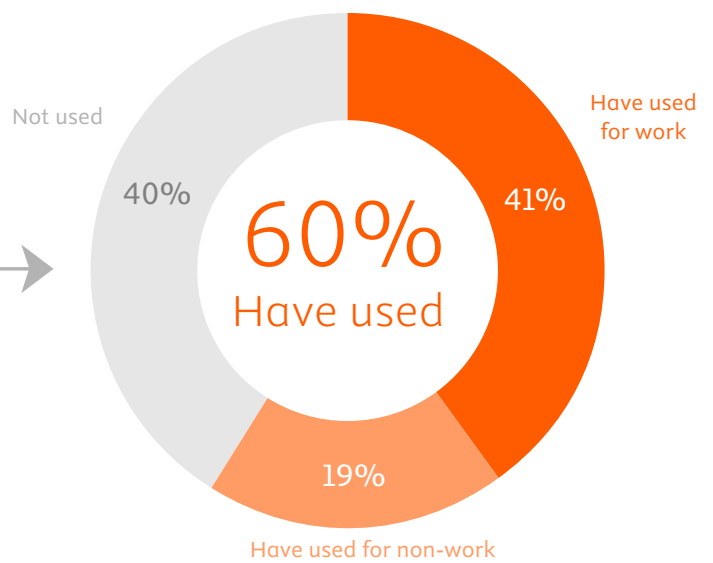


Fig 1. Questions: To what extent are you familiar with AI (including GenAI)? n=234
Have you used an AI (including GenAI) product or an AI feature on a product you use regularly? n=225



AI products familiarity and usage

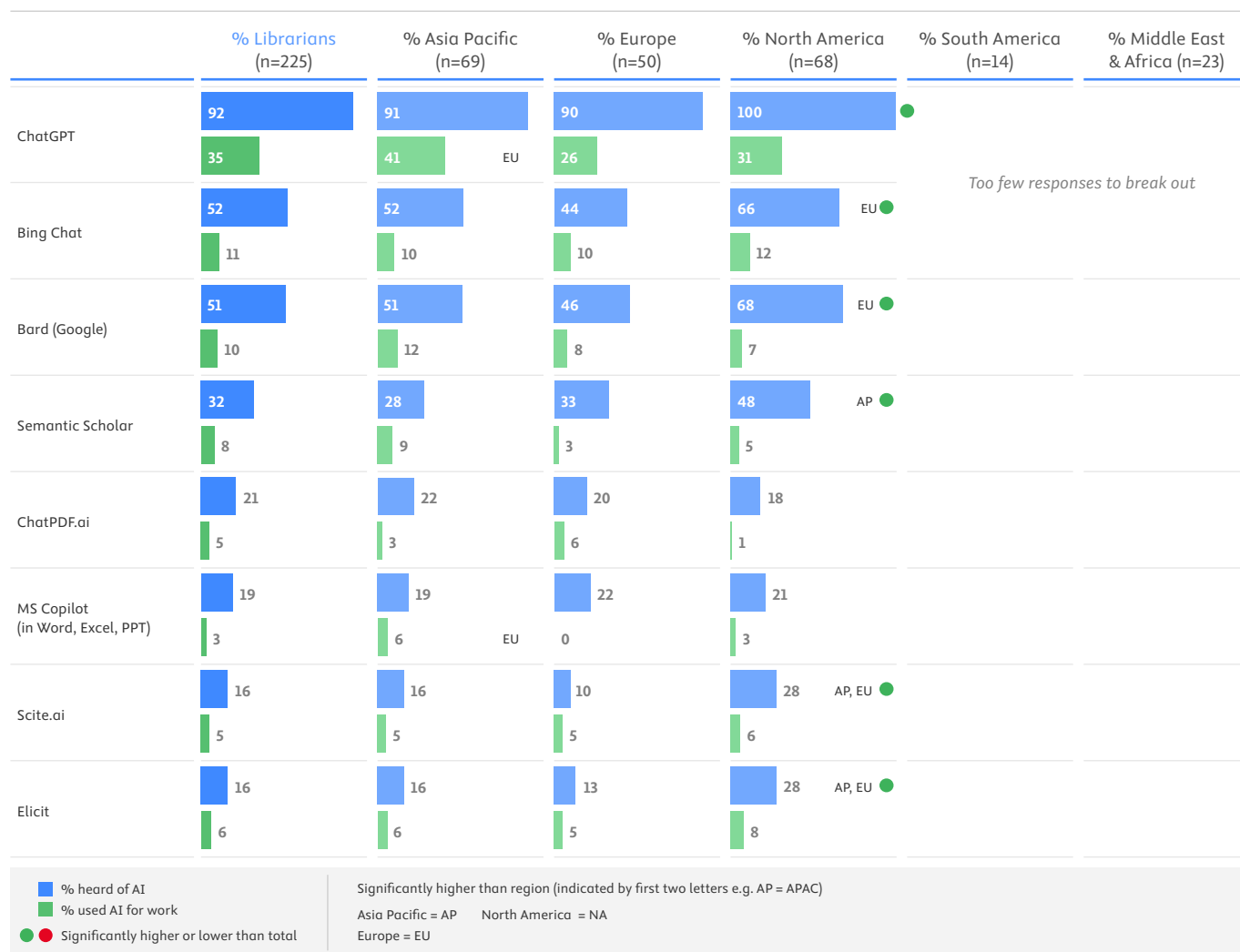


Fig 2. Question: Which of these AI products, if any, have you heard of before today? Only the top 8 products are shown.

Question: Which, if any, AI products have you used for work purposes? (Shown only to those aware of each tool, so the base is variable. However, the percentage shown is a proportion of the total base size, 225.)

Perceptions of AI

Perceptions of AI are largely mixed among librarians, with 52% able to see both potential and drawbacks of the technology. This mixed sentiment is most prevalent in North America (76%) and less so in Asia Pacific (39%).

Librarians in Asia Pacific are most positive, with 52% seeing AI as a welcome advancement. This is significantly higher than the proportion in North America (10%) and Europe (20%). Although globally only 1% of librarians see mostly drawbacks to AI, this negative sentiment is highest in North America, at 6%.

A similar pattern emerges in librarians' views of the potential impact of AI. Globally, 78% of librarians expect AI to have a significant or transformative impact on their area of work. Those in Asia Pacific are more likely to expect this impact, at 83%, and those in North America least likely, at 67%. Despite the somewhat muted perception of AI among librarians in North America, only 1% of them expect AI to have no impact.

Most librarians have concerns about the ethical implications of AI in their area of work, at 88% globally. Levels of concern are fairly consistent across regions: 31% of librarians globally have significant concerns, ranging from 24% in Europe to 35% in Asia Pacific.



Overall feelings toward AI (including GenAI)

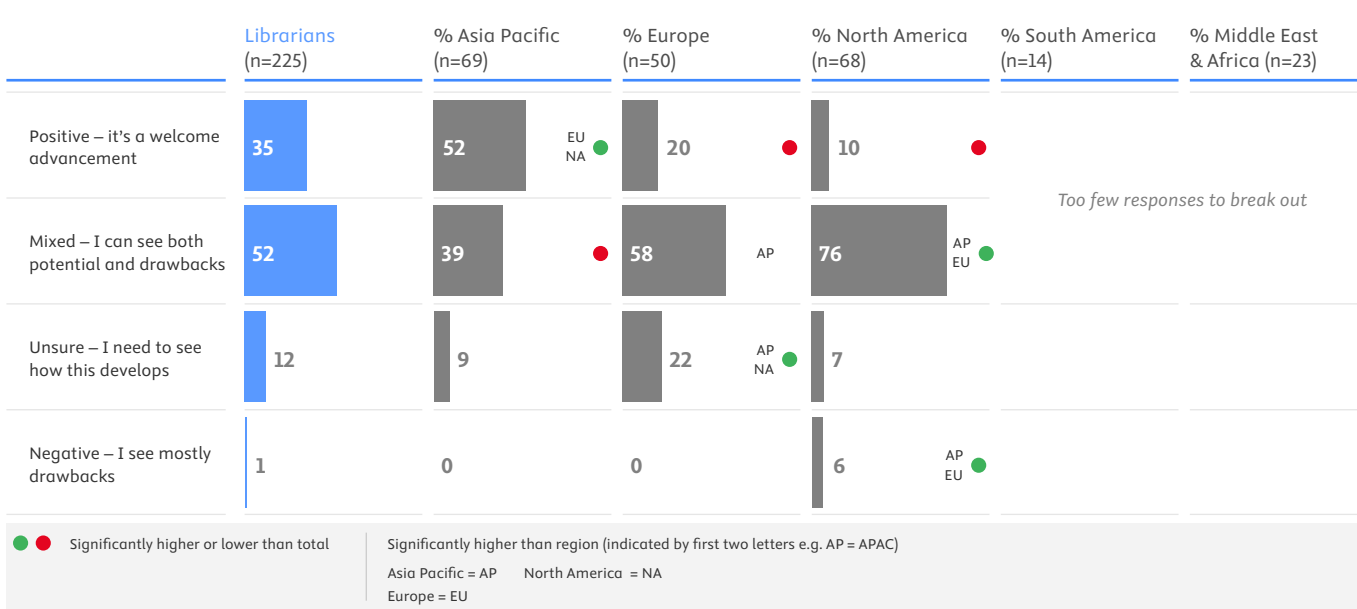


Fig 3. Question: What are your overall feelings about the impact of AI on your area of work?



AI in practice

As we have seen, most librarians (60%) have used AI tools already – 41% for a specific work-related purpose and 19% for a non-work-related purpose (see figure 1). But a substantial minority are yet to experiment with AI.

By far the most common reason for not yet having used AI is time: 48% of librarians globally who have not used AI tools say it's due to a lack of time to experiment with them. Other reasons librarians shared include not yet having a subscription or login (26%), not having found a tool that meets their needs (25%) and having concerns about AI tools (23%).

These results suggest an increase in usage in the past year: a 2023 study on AI literacy showed that less than 7% of academic library employees had paid access to a generative AI tool.³

Reasons for not using AI products or AI features

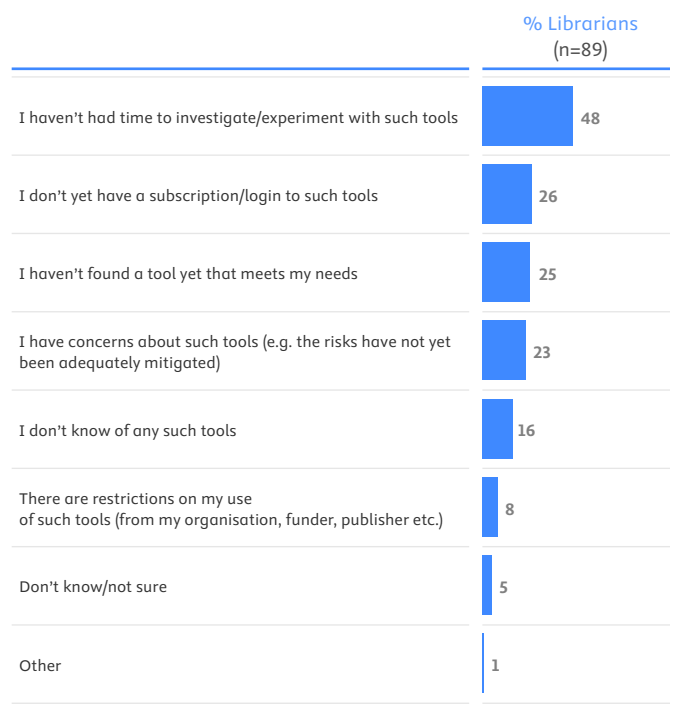


Fig 4. Question: Which of the following describes why you haven't used an AI product or AI feature?

A future lens on AI



- ▶ 98% think AI will change the way students are taught and study in universities and medical schools
- ▶ 94% think AI will accelerate knowledge discovery
- ▶ 89% think AI will provide cost savings to institutions and businesses
- ▶ 83% think AI will increase their work quality
- ▶ 92% are concerned about misinformation
- ▶ 84% think AI could cause critical errors or mishaps and 84% believe it may lead to the erosion of critical thinking skills
- ▶ 78% believe AI (including GenAI) will have a transformative or significant impact on their area of work
- ▶ 78% of those not using AI expect to use it in the next two to five years

Librarians foresee AI having significant impacts in many areas of academia, including accelerating knowledge discovery and rapidly increasing the volume of research. They also predict specific impacts and benefits in their own area of work, particularly noting benefits in library-related activities. Many think it will have a transformative or significant impact on their work and most of those who are not yet using AI expect to do so in the coming two to five years.



Perceived impact and benefits

“In general, AI is just very powerful. It seems to be the trend for every life aspect in the future.”

Dr. Borui Zhang, Natural Language Processing Specialist⁴

Underpinning librarians’ perceptions of AI are the benefits and drawbacks they see the technology having. A high-level view shows consistency with the regional pattern of perception: in general, librarians in North America are less likely than the global average to see the positive impact of AI tools across a range of areas, though it’s important to note that in all cases, the majority of librarians – at least 51% – do expect at least some positive impact.

Positive impact of AI in various areas over the next two to five years



Fig 5. Question: Thinking about the impact AI will have on society and your work, to what extent do you think over the next two to five years it will...? Scale: A great extent, some extent, not at all (bottom box and top two boxes, excl. don't know).



Library activities: Globally, 97% of librarians perceive AI to have benefits for library or information profession activities, with agreement lowest in North America (89%). Thinking about the impact of AI on their work, most librarians globally expect AI to improve their work efficiency (91%), free their time for higher-value work (84%), increase their work quality (83%) and increase their work consistency (77%). Across all these factors, librarians are significantly less likely to agree compared to the global average we saw for researchers and clinicians (see the full report *Insights 2024: Attitudes toward AI*).

Teaching and learning: Nearly all (98%) librarians expect AI to change the way students are taught and study at university in the next two to five years. Agreement ranges from 95% in Europe to 100% in North America.

Research: Most librarians see AI benefiting various research-related activities, namely data science activities (99%), using scientific content (96%) and funding-related activities (89%). Librarians believe AI has a positive impact by helping accelerate knowledge discovery (94%), rapidly increasing the volume of scholarly and medical research (93%) and increasing collaboration (80%). And 64% agree that generative AI will work well with non-text modalities (i.e. chemical or biological compounds, chemical reactions, graphs, plans) – see Figure 9 on page 15 for details.

Perceived benefits of AI in different areas

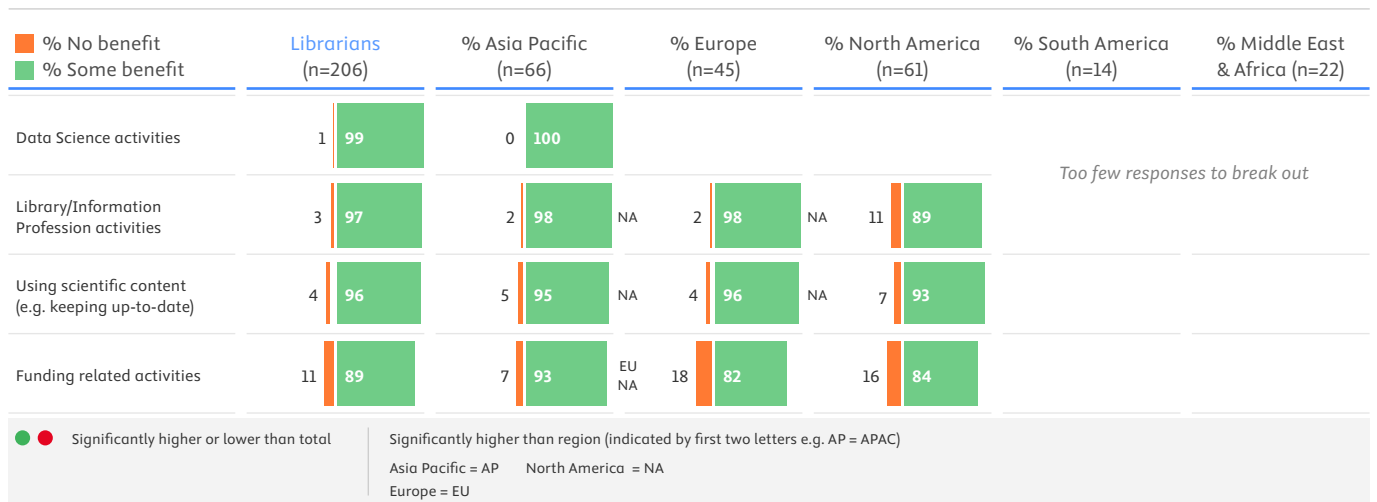


Fig 6. Question: Thinking about the general areas of activity you need to complete, how much benefit, if any, do you believe the assistance of AI would bring? Scale: A lot of benefit, some benefit, no benefit, don't know/not applicable (bottom box and top two boxes, excl. don't know).



Perceived drawbacks

While the perception of AI among librarians globally is generally positive, they also recognize drawbacks and have concerns about the technology. Notably, 92% of librarians believe AI could be used for misinformation over the next two to five years – and 100% of librarians in North America believe this.

Negative impact of AI in various areas over the next two to five years

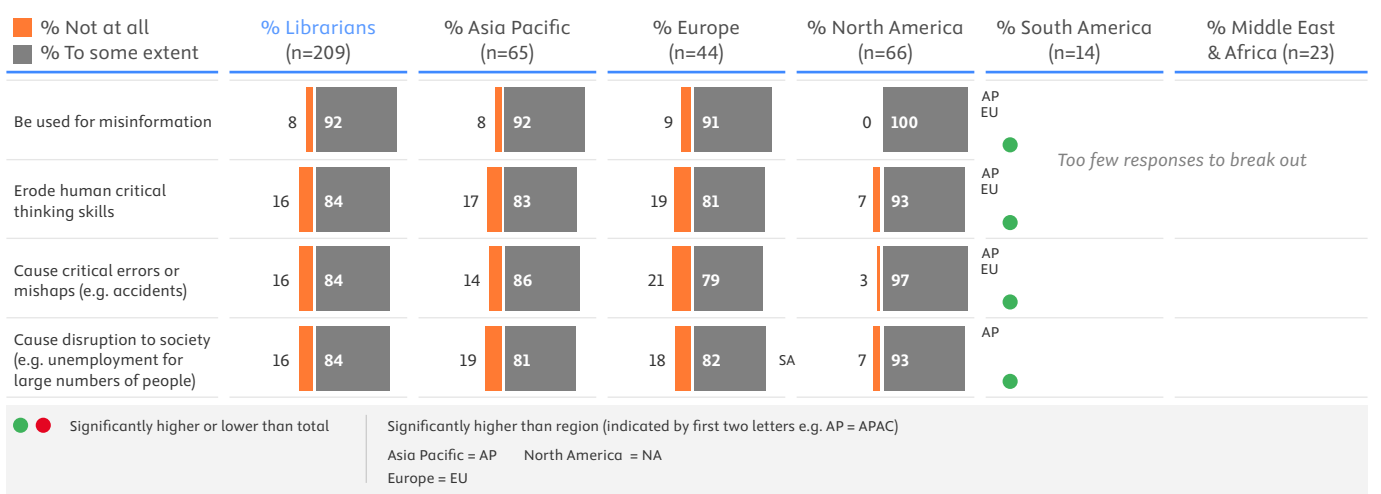


Fig 7. Question: Thinking about the impact AI will have on society and your work, to what extent do you think over the next two to five years it will...? Scale: A great extent, some extent, not at all (bottom box and top two boxes, excl. don't know).

Perceived top-three disadvantages of AI (of those who have concerns)



Fig 8. Question: You mentioned that you had concerns, what do you think are the top three disadvantages of AI? Select up to three.

Accuracy: As we have seen, almost all librarians believe AI could be used for misinformation. In addition to this, 84% globally think AI could cause critical errors or mishaps. In particular, 30% of librarians globally consider hallucinations – factually incorrect or nonsensical outputs – a top-three disadvantage of AI, with many more librarians in North America (58%) ranking this in their top three. And 15% of librarians consider AI tools being dependent on outdated data and/or information a top-three disadvantage.

The human element: More than four in five (84%) librarians believe AI could cause disruption to society, for example by causing unemployment for large numbers of people. Agreement ranges from 81% in Asia Pacific to 93% in North America. Most librarians (84%) also believe AI could erode human critical thinking skills, while 37% rank the technology’s inability to replace human creativity, judgment and/or empathy as a top-three disadvantage.

Governance and accountability: Almost one-third (30%) of librarians globally say the lack of governance and regulation is a top-three disadvantage of AI tools. Similarly, 33% rank the lack of accountability over the use of generative AI outputs as a top-three disadvantage, rising to 40% in North America. Librarians are also concerned about rights, with 24% considering the lack of permission to use data or information AI tools are trained on as a top-three disadvantage.



Expectations

While librarians are aware of some of the negative impacts of AI and the limitations of the current infrastructure, the group overall has a positive perception of AI. It is therefore perhaps unsurprising that almost four in five (78%) librarians who have not yet used AI expect to do so in the coming two to five years, and just 1% do not (the remainder are unsure).

In general, librarians want informed control of their use of AI, meaning they expect to be able to make decisions about how and where they use the technology based on transparent information about how that technology has been developed and works.

Specifically, 84% of librarians want to be informed whether the tools they use depend on generative AI. They also want a choice: 79% expect to be able to turn off generative AI in the tools they use. Indeed, 42% of librarians would prefer AI tools to be provided as a separate module (highest in North America, at 53%), while 39% would prefer them integrated (highest in Asia Pacific, at 48%).

Expectations of AI



Fig 9. Question: Thinking about the use of generative AI in your area of work, how much do you agree or disagree with the following either presently or in the near future? By near future, we mean in the next two to five years.



Access preference for AI tools

	% Librarians (n=224)	% Asia Pacific (n=69)	% Europe (n=50)	% North America (n=68)	% South America (n=13)	% Middle East & Africa (n=23)
Provided as a separate module	42	36	44	53 AP	Too few responses to break out	
Integrated into the product	39	48 EU NA	26	29		
Don't know/not sure	19	16	30 AP	18		

● ● Significantly higher or lower than total
 Significantly higher than region (indicated by first two letters e.g. AP = APAC)
 Asia Pacific = AP North America = NA
 Europe = EU

Fig 10. Question: Would you prefer any generative AI functionality included in a product you use already to be...?

Institutional readiness

Nearly two in five (39%) librarians are unaware of any institutional plans to prepare for AI usage. Those in Europe are most likely to be unaware (52%) and those in North America least likely (25%).

Globally, the institutional action librarians are most aware of is setting up a community of practice around the technology (24%), with awareness of this considerably more likely in North America (44%). Less commonly noted actions include planning to acquire tools that include it by 2024 (15%), providing ethics courses (13%) and building a plan/protocol to evaluate the purchase of tools that include it (13%).

As with many other groups that took part in this survey, budget is the biggest barrier to institutional use, with 28% of librarians reporting this. Budget is of least concern in North America (10%). Many institutions also prohibit the use of AI in different ways, including prohibiting the uploading of confidential information into public generative AI platforms (26%) and from using it for certain purposes (26%). In both these cases, librarians in North America are more likely to report the restriction (at 31% and 41% respectively).

Shaping an AI-driven future



- 84% expect to be told whether the tools they are using depend on generative AI
- 66% say citing references by default (transparency) would strongly increase their trust in that tool
- 39% say that robust governance on data and information used to train the model would increase their comfort using an AI tool
- 37% say that accountability through human oversight is a top-three factor that would increase their comfort using an AI tool

Using librarians' views and perceptions as a baseline, understanding the factors that affect their trust in and comfort using AI and GenAI tools can help developers and institutions make a positive impact. Librarians' biggest trust and comfort factors mirror their concerns, showing the importance of monitoring the views of those who will be guiding the use of AI in academia.

Factors impacting trust in and comfort using GenAI tools

“AI is a very good technological advance, however, I feel that legal regulations are still missing on its use.”

Librarian (Chile)

Librarians were asked to share their top-three factors for increasing comfort using tools dependent on AI. Three factors are significantly more important in North America compared to globally and other regions, namely accountability through human oversight (53%), basing the model on up-to-date information (51%) and actions being taken to prevent unfair bias (41%).

Factors that would increase comfort in using a GenAI tool

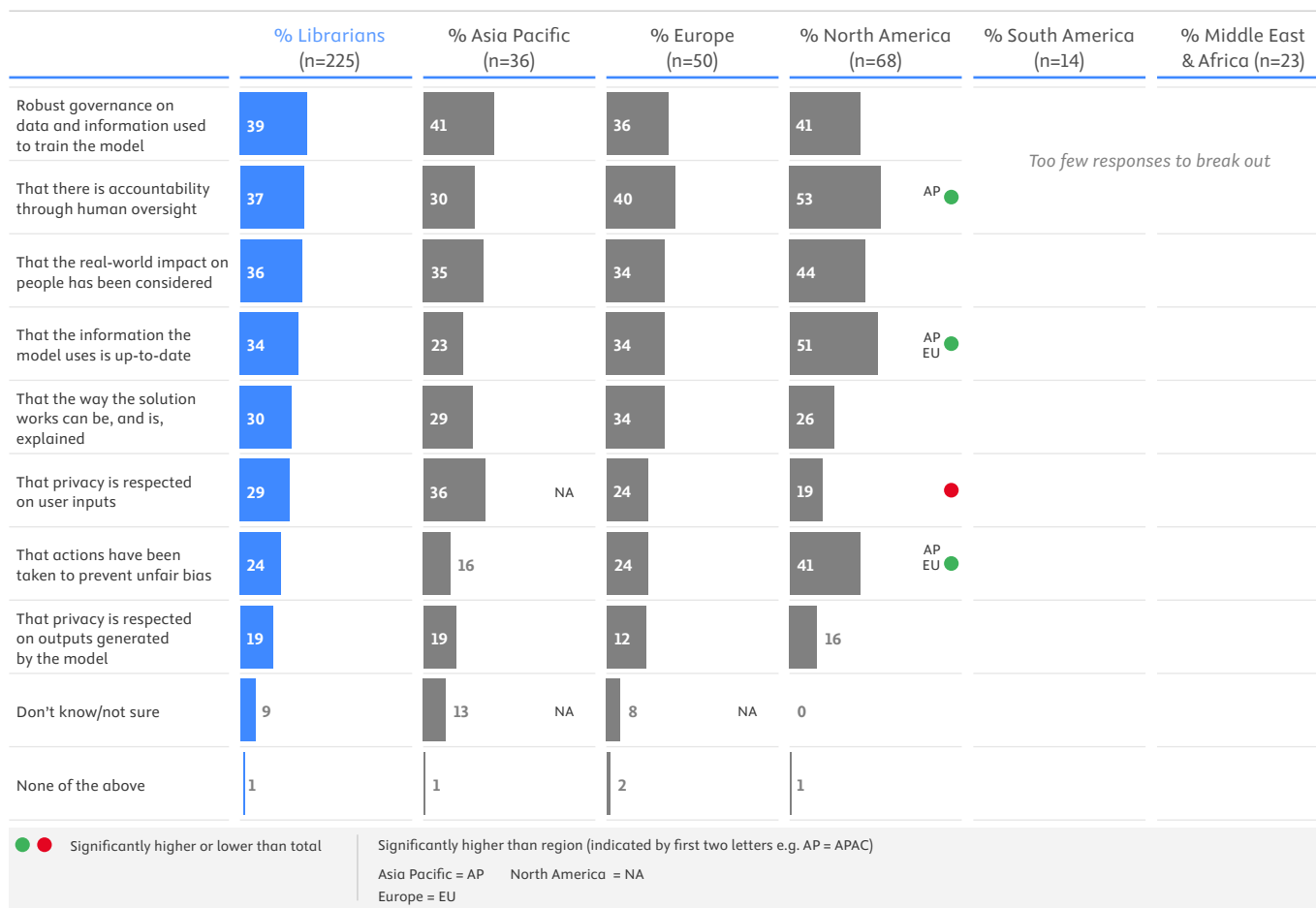


Fig 11. Question: Which information areas about a tool's dependency on generative AI would most increase your comfort in using that tool? Select up to three.

Factors impacting librarians' trust in AI tools and comfort using them can be grouped:

Transparency and accountability: Reflecting the drawbacks they identified in the survey, librarians ranked robust governance on data and information used to train the model (39%) and accountability through human oversight (37%) as top-three comfort factors. Librarians were asked to indicate the extent to which various actions would increase their trust in using AI. The factor most likely to increase trust in AI is citing references by default (transparency), at 66% globally, rising to 74% in North America. And for 56% of librarians, abidance by any laws governing development and implementation (legality) would strongly increase trust.

Quality and accuracy: Librarians would feel more comfortable using AI tools if the information the model uses is up-to-date, with 34% ranking this as a top-three comfort factor. Only using high-quality peer-reviewed content to train the model (quality model input) would strongly increase trust in AI tools for 65% of librarians, and training the model for high coherency outputs (quality model output) for 56%.

Privacy and security: For 36% of librarians, the real-world impact on people having been considered is a top-three comfort factor in using AI. They also rank privacy being respected on user inputs (29%) and on outputs generated by the model (19%) in their top three. When it comes to trust, 59% of librarians say keeping the information input confidential would strongly increase their trust in an AI tool.

Actions for an AI powered future

In this study, librarians share not only their awareness, perceptions and usage of AI, but also specific details about when they might use the technology. Of those who believe AI will be of benefit to library-related activities, librarians are most likely to think AI can help identify which tools and resources to purchase (60%) and manage existing resources (59%). Almost half (47%) also believe it could help them look for materials/videos for training others on tools and resources.



Library related activities that would benefit from AI

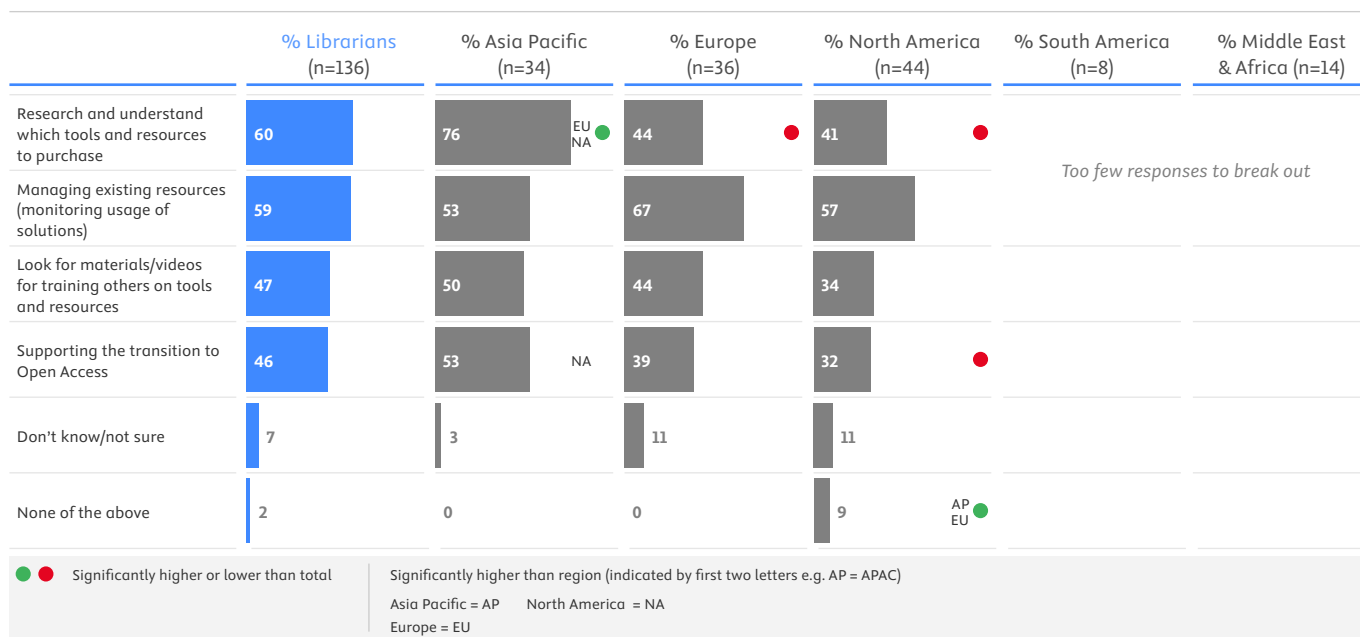


Fig 12. Question: Thinking about the various tasks within “Library/ Information Profession activities,” which do you believe would benefit you most from the application of AI?

To help them apply the information shared throughout this report (and in the full report), we recommend actions for technology developers and institutions.

AI technology developers can:

- Enhance accuracy and reliability
- Increase transparency
- Strengthen safety and security

Institutions employing librarians can:

- Establish policies and plans and communicate them clearly
- Build governance and expertise
- Provide training and capacity
- Ensure access

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Notes

For a detailed methodology, including sample bases by region/country, see the appendices of the full report.

<https://tinyurl.com/attitudes-ai>

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Elsevier September 2024