

Insights: Academic leader attitudes toward AI



Key Findings

Contents

Introduction	3
Highlights	4
Chapter 1: The current AI landscape	5
Awareness of GenAI tools	6
Perceptions of GenAI	8
AI in practice	9
Chapter 2: A future lens on AI	10
Perceived impact and benefits	11
Perceived drawbacks	13
Expectations	15
Chapter 3: Shaping an AI-driven future	17
Factors impacting trust in and comfort using GenAI tools	18
Actions for a GenAI-powered future	19

Introduction

Since 2022, artificial intelligence (AI) and generative AI (GenAI) tools like ChatGPT have entered mainstream use, including among academics. This has led academic institutions to require an approach to the use of AI. As reported in early 2022, many researchers were already using AI in their work.¹ Universities are now facing the task of developing guidelines for research and education², as well as governance structures.³

There is much work left to be done. According to Elsevier's 2024 report *View from the top: Academic leaders' and funders' insights on the challenges ahead*, there is a significant gap between level of priority placed on AI governance and the level of preparedness (64% of academic leaders consider it a high priority vs 23% feel well prepared to address this challenge).⁴

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.⁵

As the AI landscape continues to evolve, and the range of potential applications for researchers grows, it is important to monitor the views and behaviors of those who could be using it and those with responsibility for guiding the ethical use of AI. In the full report *Insights 2024: Attitudes toward AI*, we aimed to do this by surveying nearly 3,000 people working in research (including academic leaders) 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 academic leaders' 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 502 academic leaders including roles such as:
Head of Institute/Department
Head of Faculty/Department
Research Services/Office
Academic Affairs Director and Bibliometrician

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

Highlights

Awareness of AI tools is high among academic leaders, with almost all familiar with the technology. Most have already used AI, many for work purposes, and most of those who have not yet used AI expect to do so in the coming years.

96% 


Have heard of AI (including GenAI)

60% 

Have used AI

38% 

Have used it for work purposes

14% 

Are very familiar with AI and have used it a lot

77% 

Of those who do not yet use AI expect to do so in two to five years

43% 

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

Academic leaders have a generally positive perception of AI, with most expecting a major impact as a result of the technology. They believe it will help...

98% 

Change the way students are taught and study in universities and medical schools

94% 

Accelerate knowledge discovery

92% 

Rapidly increase the volume of scholarly and medical research

80% 

Have a transformative or significant impact on their area of work

46% 

Be a welcome advancement on their area of work

Academic leaders are concerned about misinformation and lack of preparedness among other areas, highlighting points of attention for developers and institutions. They believe AI could...

90% 

Be used for misinformation

84% 

Cause critical errors or mishaps

80% 

Erode critical thinking skills

Specific actions can help increase trust and comfort, and by taking and communicating them, providers of AI tools can support academic leaders in establishing guidelines and best practice and planning for the future.

84% 

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

58% 

Say training an AI model to be factually accurate, moral and not harmful (safety) would strongly increase their trust in that tool

37% 

Consider the lack of regulation or governance a top-three disadvantage

36% 

Say robust governance on data would increase their comfort using an AI tool

Chapter 1:

The current GenAI landscape



“We know AI is here... and will integrate into every facet of work... How we create research capabilities and support systems from a research standpoint is something that is deeply on my mind and is very important.”

Academic Leader, the Americas⁴

- 96% of academic leaders are familiar with AI (including GenAI)
- 60% have used AI and 38% have used it for work purposes
- 14% are very familiar with AI, i.e. they've used it a lot
- 91% have heard of ChatGPT, making it by far the most well-known AI product
- 31% have used ChatGPT for work purposes
- 43% of those who have not used AI cite a lack of time as the reason
- 80% believe AI (including GenAI) will have a transformative or significant impact on their area of work
- 46% of academic leaders say AI is a welcome advancement

AI is a priority for academic leaders, and almost all of those who responded to the survey are familiar with AI (including GenAI). Most academic leaders are already using AI, and of those who have not yet tried it, most expect to do so in the coming two to five years. Some of the reasons for not having tried AI include a lack of time, not having found the right tool and concerns about AI. Perceptions of AI

Awareness of GenAI tools

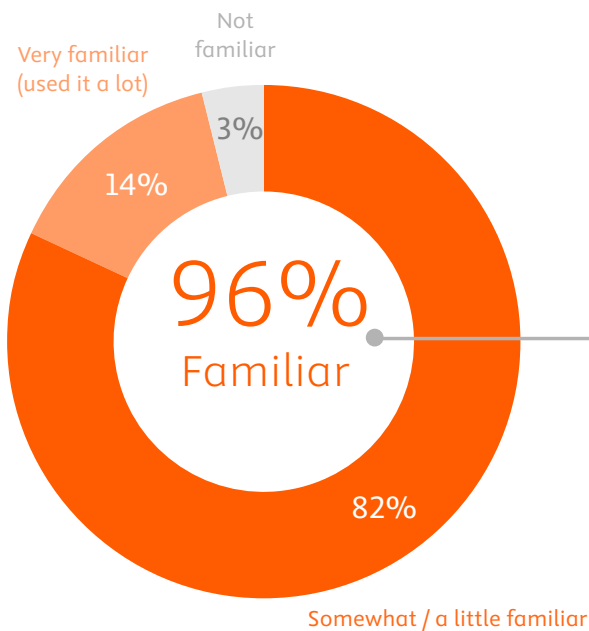
Awareness of AI is high among academic leaders globally (96%), ranging from 93% in South America to 98% in the Middle East and Africa. Globally, 14% of academic leaders are very familiar with AI, having used it a lot – this is in line with results from all researchers.

Echoing the trend among other groups, the overwhelming majority (91%) of academic leaders are familiar with ChatGPT, making it the most well-known AI product by a large margin. Familiarity ranges from 84% in South America to 93% in North America. Next in line in terms of familiarity are Google’s Bard (at 43%), Bing Chat (40%), Google’s Gemini (26%) and MS Copilot (in Word, Excel, PowerPoint) (26%).

Use of these tools is in line with that of all researchers: almost one-third (31%) of academic leaders have used ChatGPT for work purposes, higher than the global average across all ~3,000 respondents answering the survey including clinicians (25%). Other tools used for work-purposes are those with which leaders are most familiar, including Bard and Bing Chat, both at 9%.



Familiarity with AI



Present usage of AI

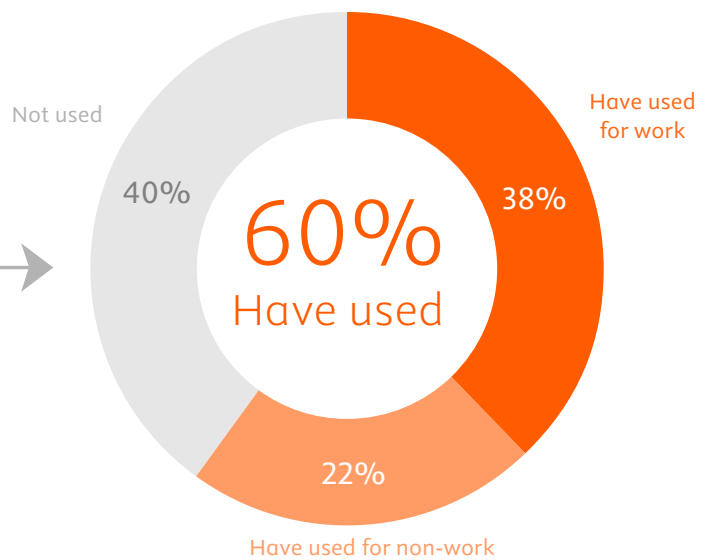


Fig 1. Questions: To what extent are you familiar with AI (including GenAI)? n=523
Have you used an AI (including GenAI) product or an AI feature on a product you use regularly? n=502



AI products familiarity and usage

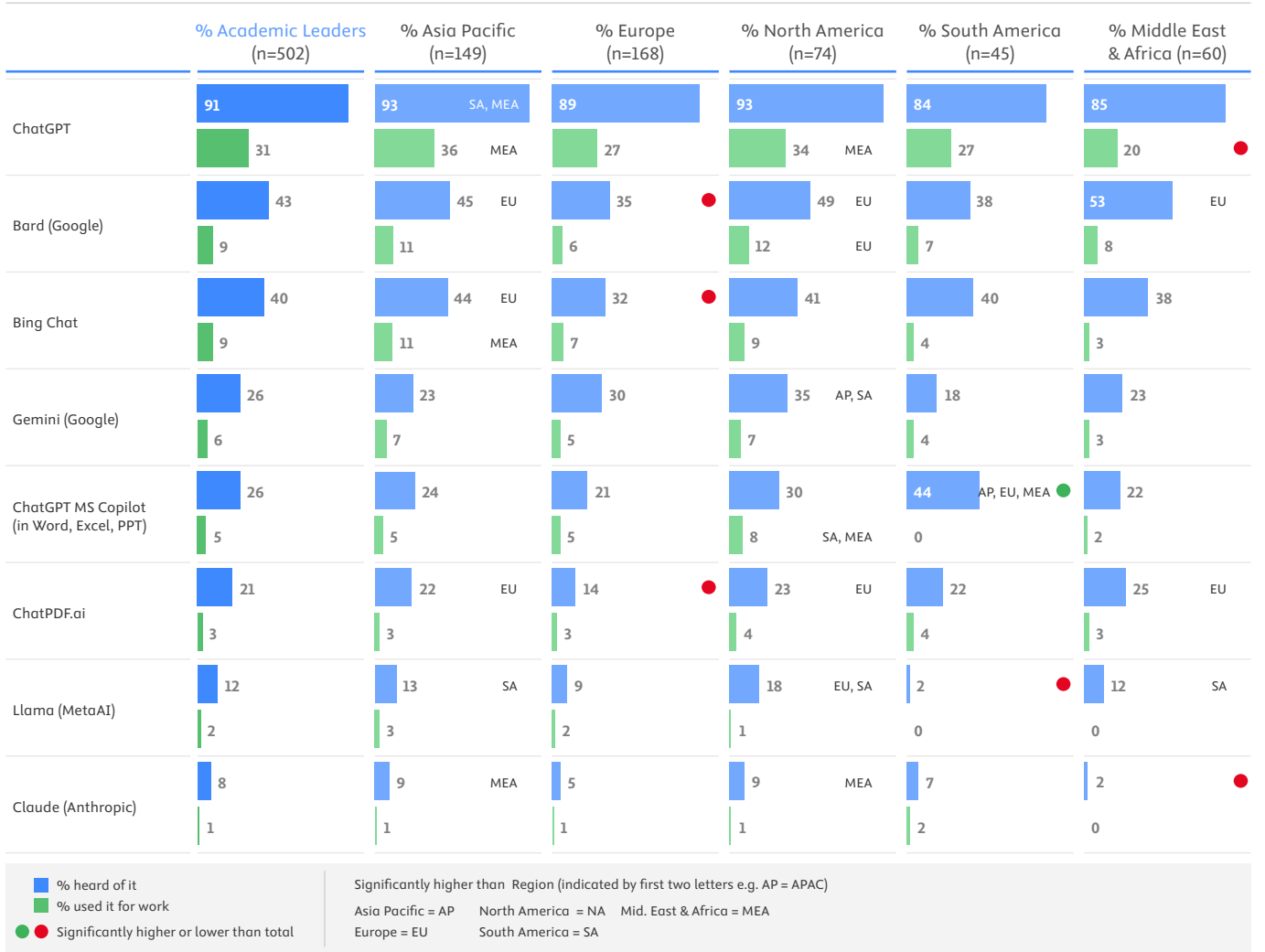


Fig 2. Question: Which of these AI products, if any, have you heard of before today? Only the top 8 products are shown.
Question: Which, if any, AI products have you used for work purposes? Shown only to those aware of each tool, so the base is variable, however the percentage shown is a proportion of the total base size, 502.



Perceptions of AI

Globally, 46% of academic leaders say AI is a welcome advancement, while 44% can see both potential and drawbacks. Very few, just 1%, see it as wholly negative. Sentiment is most positive in APAC, where 54% see AI as a welcome advancement, and least in Europe, at 36%.

However, most academic leaders (83%) have at least some concerns about the ethical implications of AI in their area of work. The proportion of leaders with fundamental concerns is highest in South America and Europe (18% and 17% respectively).

Overall feelings toward AI (including GenAI)

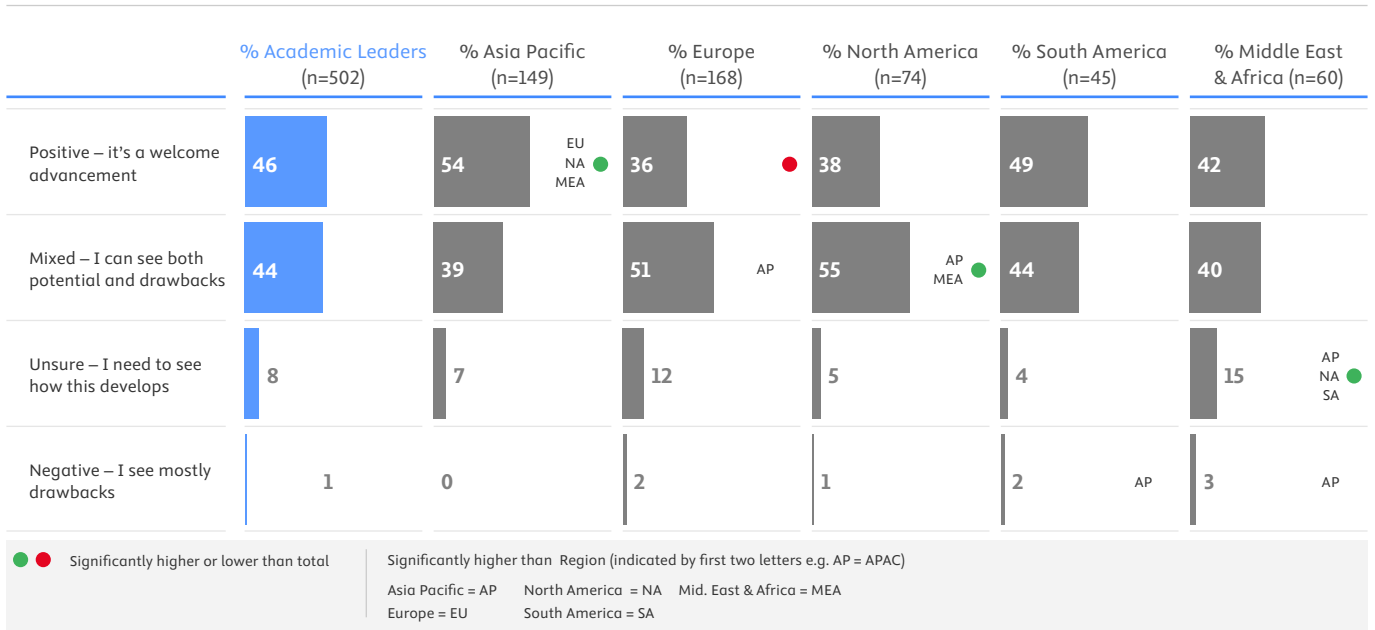
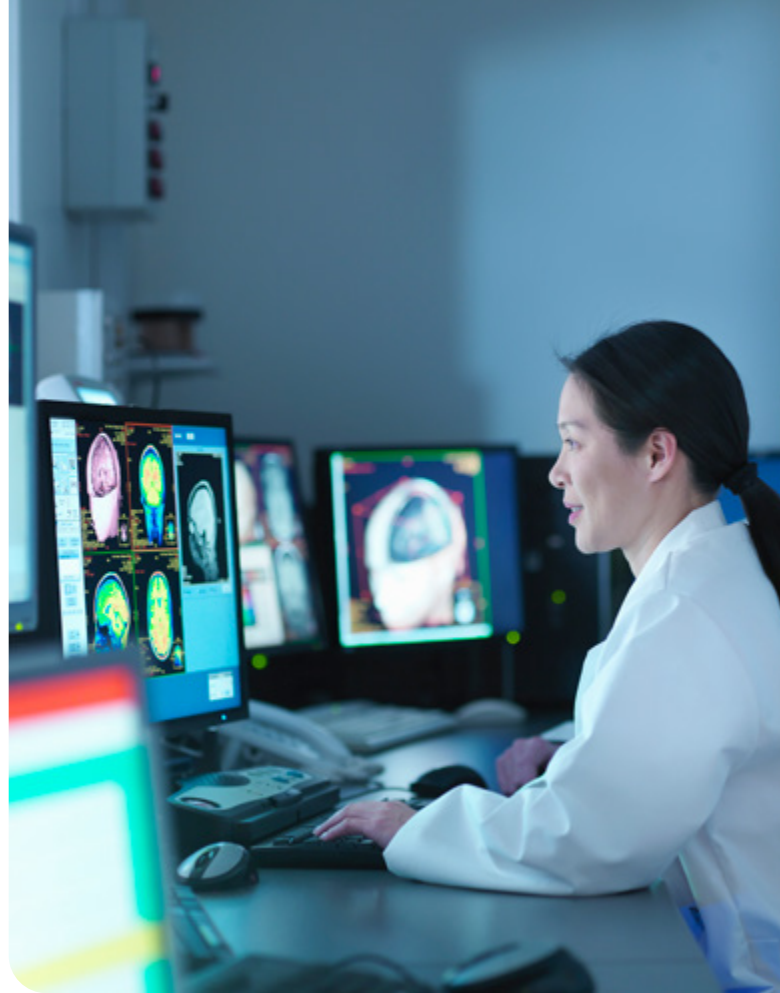


Fig 3. Question: What are your overall feelings about the impact of AI on your area of work?

AI in practice

Of the 96% of academic leaders who have heard of AI, 60% have used it, 38% for a specific work-related purpose. The percentage of those who have used AI for work is highest in North America (46%) and lowest in the Middle East and Africa (25%). The opposite is true for personal use, with academic leaders in the Middle East and Africa most likely (32%) and those in North America least likely (12%) to have used AI only for a non-work purpose.

About two in five (43%) academic leaders who have yet to work with AI give a lack of time to experiment with tools as the reason why. Other significant reasons include not having found a tool that meets their needs (28%) and not having a subscription (25%). Although not statistically significant, it is notable that almost one-third (32%) of academic leaders in North America say their lack of AI use is due to concerns about the technology, while globally this is less than a quarter (23%).



Reasons for not using AI products or AI features

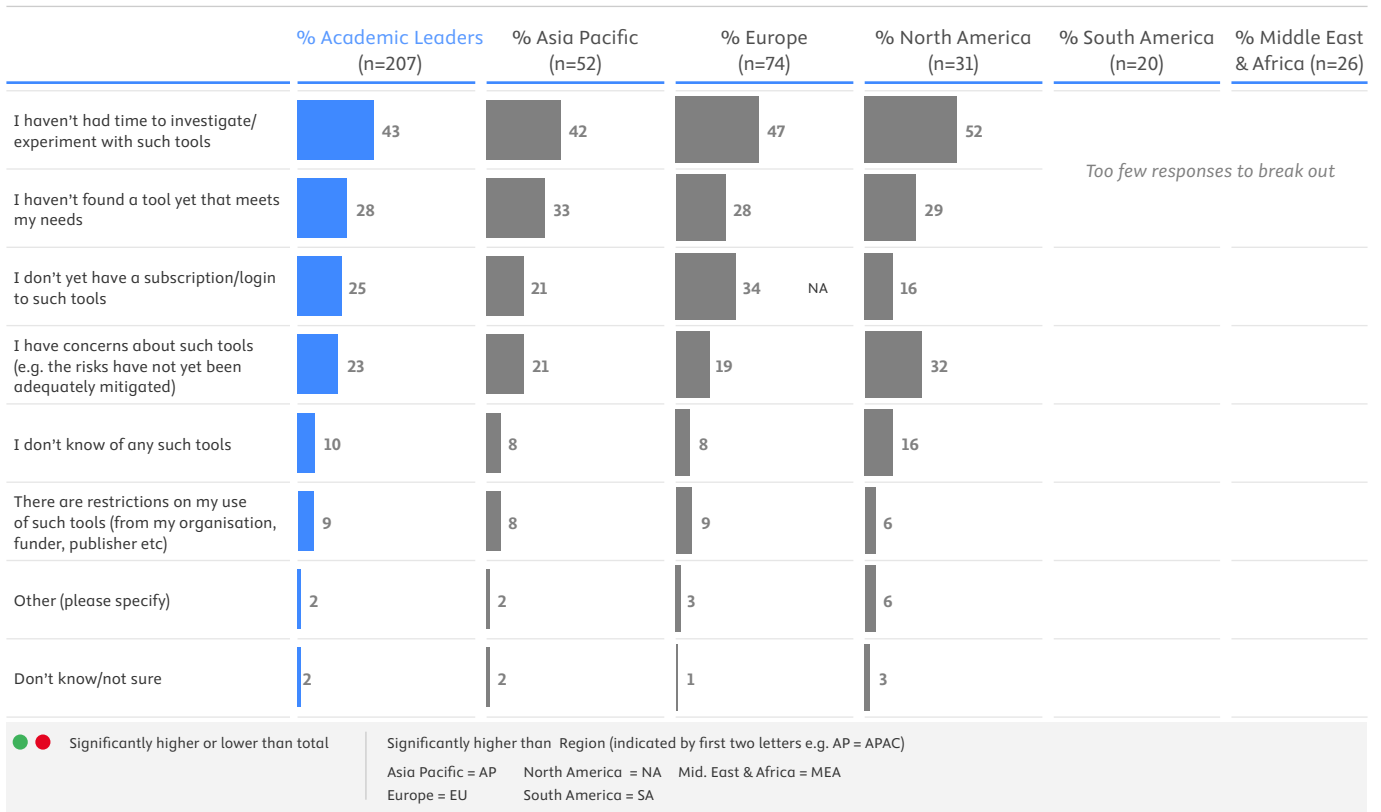


Fig 4. Question: Which of the following describes why you haven't used an AI product or AI feature?

A future lens on AI



- 94% think AI will accelerate knowledge discovery
- 92% think AI will rapidly increase the volume of scholarly and medical research
- 92% believe AI will provide cost savings to institutions and businesses
- 80% believe AI (including GenAI) will have a transformative or significant impact on their area of work
- 77% of those not using AI expect to use it in the next two to five years

Academic leaders recognize the potential impact of AI and GenAI on their institutions, including on education and research, with four-fifths believing the technology will have a transformative or significant impact on their work. The effects that academic leaders foresee include AI rapidly increasing the volume of scholarly and medical research and accelerating knowledge discovery. Although perception is mainly positive or neutral, academic leaders also have some major concerns about the technology.



Perceived impact and benefits

“[AI] can ... lead to the falsification of research results, but it can also give organizations a significant edge in terms of back-of-house efficiency. A lot of universities will be scrambling now to make sure that they’re taking full advantage of those efficiencies, so they can invest the money saved elsewhere.”

Academic Leader, APAC⁴

Academic leaders’ opinions about AI – including the benefits and drawbacks of the technology – will likely impact the decisions they make about its use in their institutions, so it’s important to understand these perceptions. The generally positive attitude we see among academic leaders toward AI becomes clearer when looking at the positive impacts they expect in the next two to five years.

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

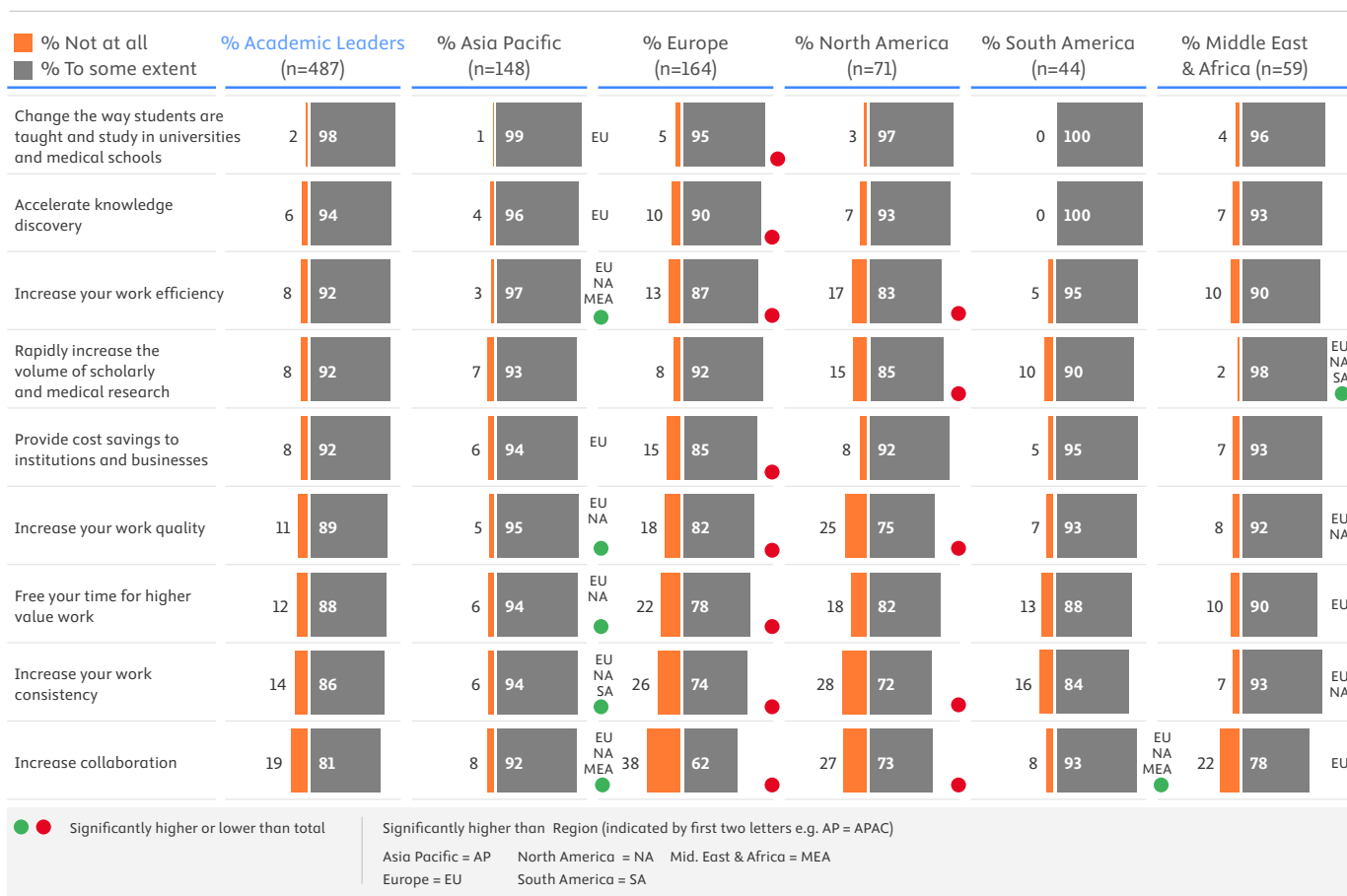


Fig 5. Question: Thinking about the impact AI will have on society and your work, to what extent do you think over the next two to five years it will...? Scale: A great extent, some extent, not at all (bottom box and top two boxes, excl. don't know).



Teaching and learning: Almost all (98%) academic leaders expect AI to change the way students are taught and study at university in the next two to five years, reflecting the current widespread development of guidelines for AI in education. Similarly, 96% of academic leaders see benefit in AI for teaching and lecturing activities.

Research: Alongside education, research is a core function of an academic institution, so academic leaders' perceptions of the benefit and impact of AI on research has a bearing on its future use. Most (92%) academic leaders expect AI to rapidly increase the volume of scholarly and medical research and 96% see benefit for research-related activities. The majority (92%) of academic leaders also think that AI will bring some benefit to monitoring the impact of research. They are comparatively less optimistic about funding-related activities, though, with 14% expecting no benefit.

Productivity and quality: Academic leaders believe AI will have a positive impact on work efficiency (92%) and freeing up time for higher value work (88%). Most (92%) also believe AI will provide their institution with cost savings. Academic leaders also see many benefits to the quality of research, including improving work consistency (86%), increasing collaboration (81%) and increasing work quality (89%).

Although academic leaders in North America and Europe see the benefits of AI, it is notable that the proportions who see benefit in these regions are consistently lower than those in other regions.

Perceived benefits of AI in different areas

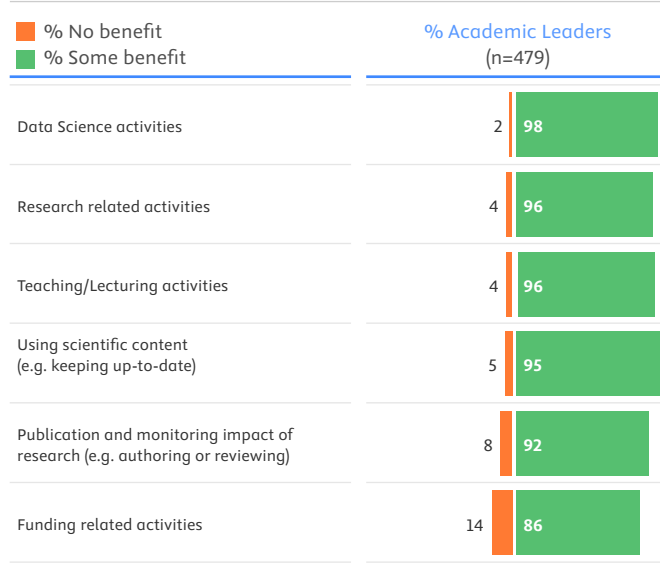


Fig 6. Question: Thinking about the general areas of activity you need to complete, how much benefit, if any, do you believe the assistance of AI would bring? Scale: A lot of benefit, some benefit, no benefit, don't know/not applicable (bottom box and top two boxes, excl. don't know)

Perceived drawbacks

“[AI] would allow our researchers to automate certain tasks that are currently manual... The negative is it could produce vast quantities of dubious research and inability to tell what’s real from what’s fake in all manner of technical output... We are at the beginning of this change and we have got to learn how to do this.”

Academic Leader, the Americas⁴

As academic leaders work on understanding and addressing the risks involved with AI and GenAI in education and research, their own concerns and beliefs about the potential negative impacts of the technology play a role in the decisions they make about their institutions. In the *View from the top* report, through qualitative interviews academic leaders shared their concerns, including that “an overreliance on the technology could lead to dubious research results and intellectual property misuse.”¹⁴

The current study reflects many such concerns, centered around institutions’ priority areas of education and research, with a focus on governance.



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

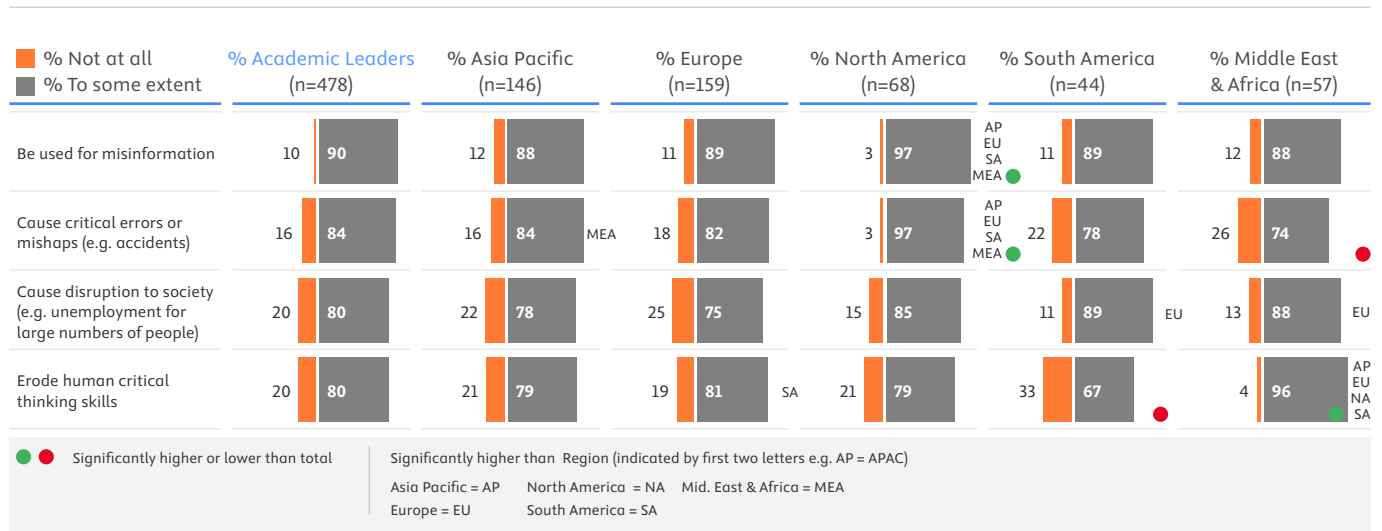


Fig 7. Question: Thinking about the impact AI will have on society and your work, to what extent do you think over the next 2 to 5 years it will...? Scale: A great extent, some extent, not at all (bottom box and top two boxes, excl. don’t know).

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

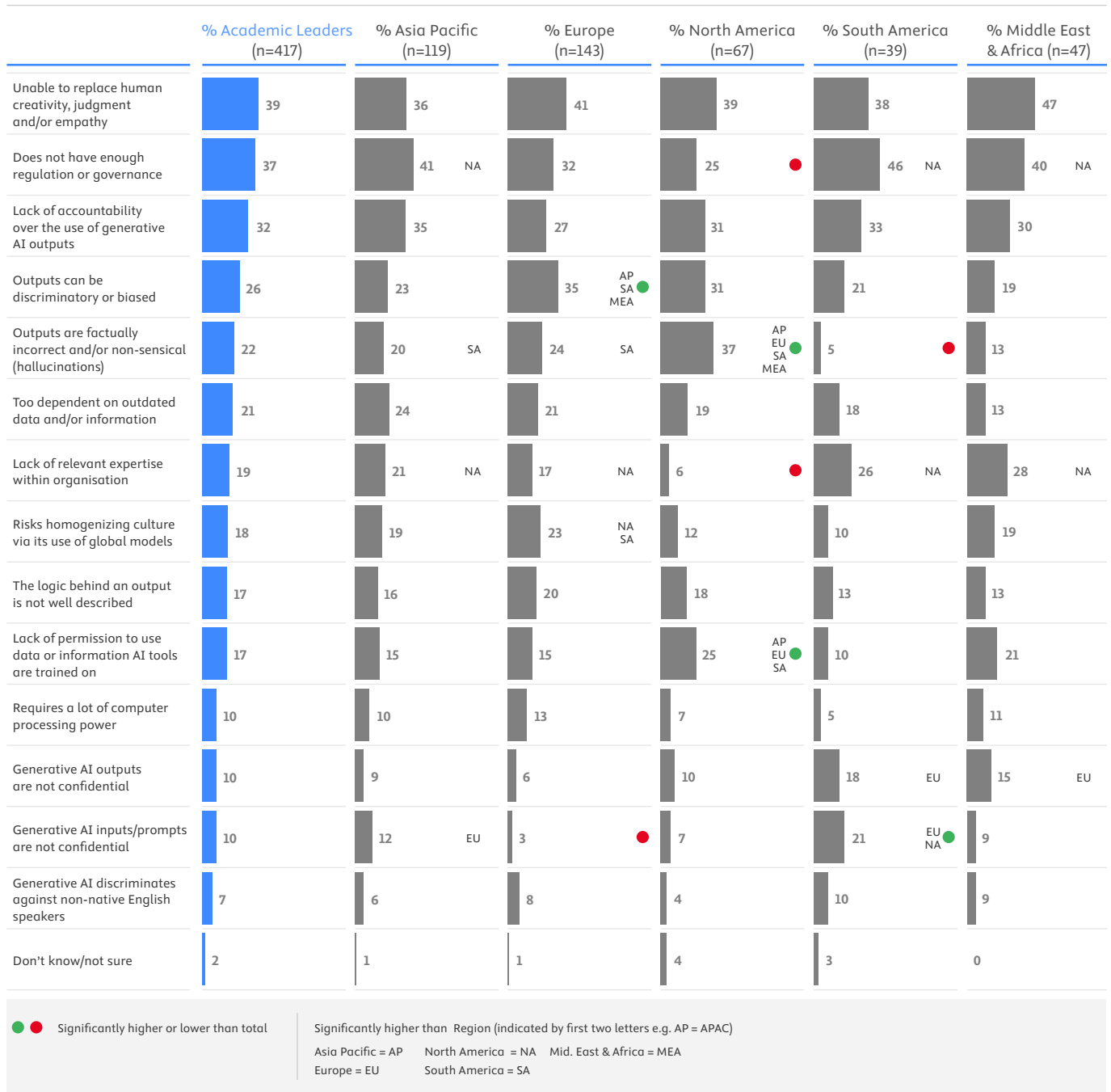


Fig 8. Question: You mentioned that you had concerns, what do you think are the top three disadvantages of AI? Select up to three.

Reliability: Most (90%) academic leaders believe AI could be used for misinformation, and 84% are concerned the technology will cause critical errors or mishaps. In both cases, concern is highest in North America (97%) (see figure 7). Hallucinations are a risk of GenAI tools, and 22% of academic leaders rank this as a top-three disadvantage of the technology. Similarly, 21% of academic leaders consider AI's dependence on outdated information a top-three disadvantage.

Immaturity: Globally, 37% of academic leaders say the lack of governance around AI is a top-three disadvantage, highlighting the early stage of the technology's use in the sector. Many (32%) also rate the lack of accountability over the use of outputs as a top-three disadvantage. Almost one-fifth (19%) consider their institution's lack of relevant expertise to be a top-three disadvantage.

Human impact: Four-fifths (80%) of academic leaders believe AI could disrupt society, such as through mass unemployment. They also have concerns about the impact of its use, with 80% predicting it could erode human critical thinking skills (see figure 7), and 39% ranking its inability to replace human creativity, judgment or empathy as a top-three disadvantage. Lower priority disadvantages include the risk of homogenizing culture (18%) and discrimination against non-native English speakers (7%)



Expectations

As noted, academic leaders feel relatively underprepared to meet the high priority challenge of AI governance.⁴ Understanding their expectations can help close this gap. Despite their concerns, it's clear the technology is growing: more than three-quarters (77%) of academic leaders who do not yet use AI expect to do so in the coming two to five years, and only 4% say they won't. Expectation of using AI is highest in Asia Pacific (85%), while expectation of not using it is higher in Europe (9%).

Many of academic leaders' top expectations of AI in the coming two to five years are focused on transparency and choice. For example, 84% of academic leaders say they expect to be informed whether the tools they use depend on AI, and 81% whether the peer-recommendations they receive used AI.

Reflecting concerns about accuracy, academic leaders also expect AI results to be based solely on high-quality trusted sources (73%) and to be paired with human expertise (82%).

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

	% Academic Leaders (n=498)	% Asia Pacific (n=149)		% Europe (n=168)		% North America (n=74)		% South America (n=41)		% Middle East & Africa (n=60)	
Integrated into the product	41	48	EU NA	29		27		66	AP, EU NA, MEA	43	EU NA
Provided as a separate module	37	34	SA	49	AP SA	41	SA	17		40	SA
Don't know/not sure	21	19		22		32	AP, EU SA, MEA	17		17	

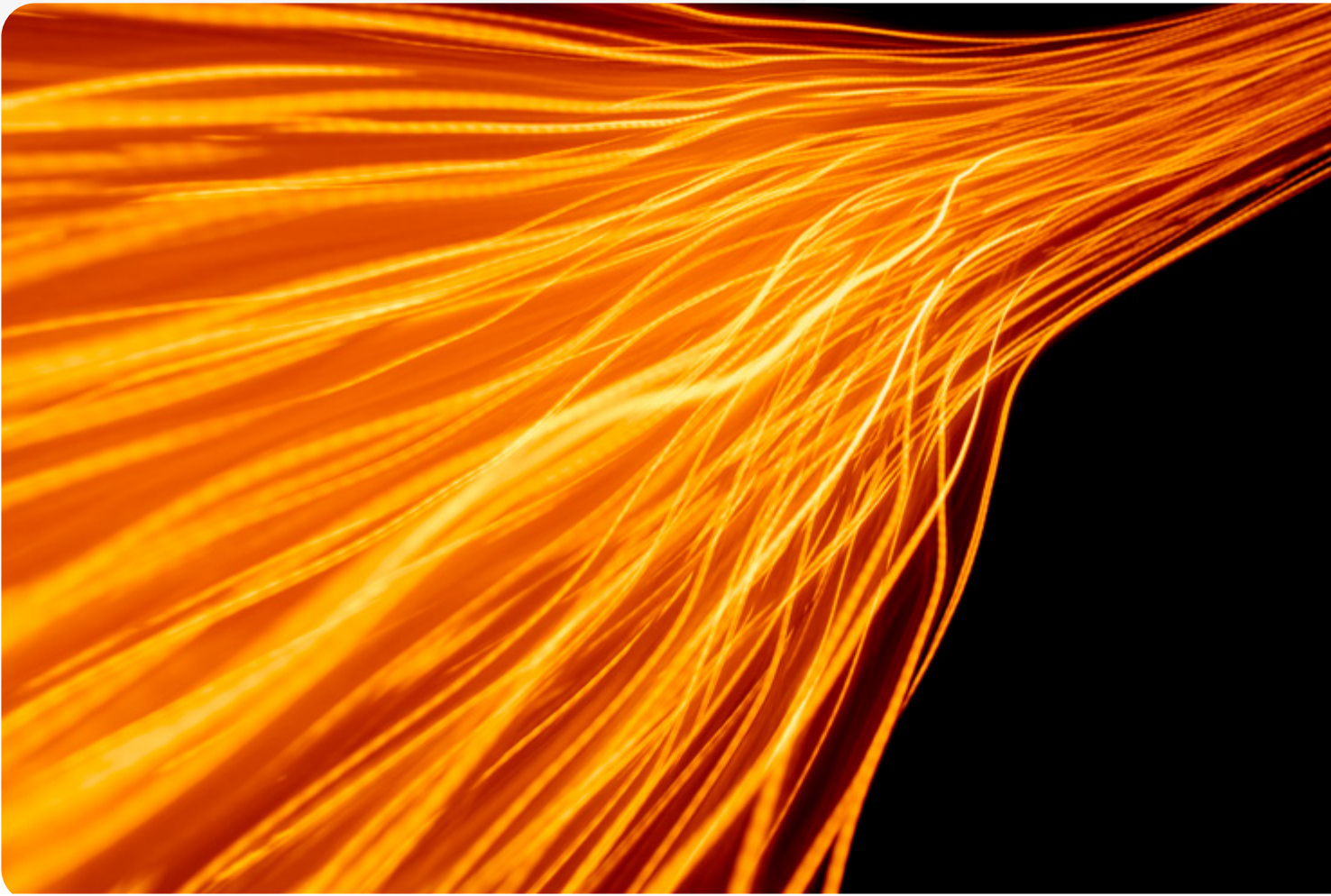
● ● Significantly higher or lower than total
 Significantly higher than Region (indicated by first two letters e.g. AP = APAC)
 Asia Pacific = AP North America = NA Mid. East & Africa = MEA
 Europe = EU South America = SA

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

About one-third of academic leaders (32%) are unaware of any institutional plans to prepare for AI usage. The most common preparation is setting up a community of practice, with 22% reporting this globally, followed by building a plan/protocol to evaluate the purchase of tools that include AI (18%) and providing ethics courses (18%). Globally, 7% report institutional plans to appoint new leadership around AI.

The biggest institutional barrier to AI usage academic leaders report is a lack of budget to pay for AI products or features (28%). Budget is a significantly bigger factor in South America (51%) and the Middle East and Africa (48%), and less so in North America (19%). Academic leaders report several restrictions to AI usage from their institutions, including being prohibited from uploading confidential information into public generative AI platforms (22%) and being prohibited from using it for certain purposes (15%). Only 1% are prohibited from using AI for any purpose.

Shaping an AI-driven future



- Most academic leaders are concerned about misinformation (90%), critical errors or mishaps (84%) and the erosion of critical thinking skills (80%)
- 58% say training an AI model to be factually accurate, moral and not harmful (safety) would strongly increase their trust in that tool
- 37% consider the lack of regulation or governance a top-three disadvantage
- 36% say that knowing the information the model uses is up to date would increase their comfort using an AI tool

Combined with insights into academic leaders' concerns and expectations, an understanding of the factors affecting their trust and comfort in AI tools can help establish their use for positive future impact. Overall, comfort and trust factors reflect academic leaders' concerns, namely around accuracy, transparency, security and governance.

Factors impacting trust in and comfort using GenAI tools

“AI is going to change everything about how we work at universities, particularly in the teaching but also, in the research. I don’t think we have begun to scratch the surface of what that looks like.”

Academic Leader, EMEA⁴

Top-three factors were selected for increasing comfort using tools dependent on AI. The AI model using up-to-date information is ranked highest. Academic leaders in North and South America more likely to say that having accountability through human oversight would increase their comfort in that tool than seen globally.

Information areas that would increase comfort in using that tool

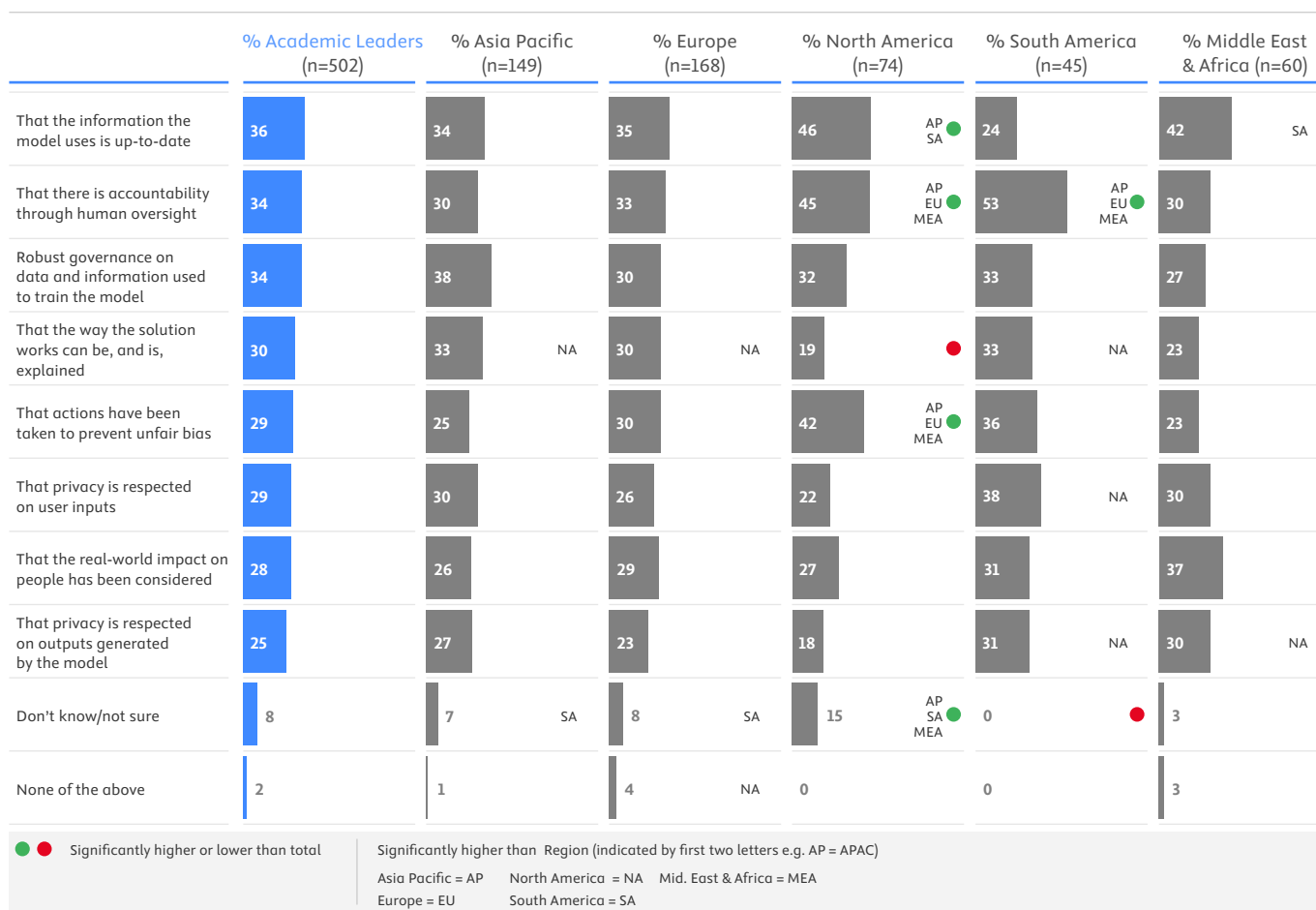


Fig 11. Question: Which information areas about a tool's dependency on generative AI would most increase your comfort in using that tool? Select up to three.

Factors that increase academic leaders' comfort in using AI and GenAI tools are those that address their biggest concerns.

Quality and accuracy: More than one-third (36%) of corporate researchers rank knowing the information the model uses is up to date as one of their top-three comfort factors, and just under one-third (30%) say an explanation of how the solution worked would make them more comfortable. A similar proportion (29%) say actions being taken to prevent unfair bias would be a top-three comfort factor in using AI.

Governance and accountability: 34% consider accountability through human oversight as a top-three comfort factor. Similarly, 34% rank robust governance on data and information used to train the model.

Privacy: For over one-quarter of academic leaders, privacy is a top-three factor in increasing their comfort using AI tools, specifically that privacy is respected on user inputs (29%) and outputs generated (25%).

People: 28% of academic leaders say considering the real-world impact of AI would be a top-three factor in increasing their comfort using an AI tool, and 29% rank actions having been taken to prevent unfair bias in their top-three.

Actions for a GenAI-powered future

When asked about the challenges they will face in the coming 12 months, academic leaders identified AI as a priority.⁴ The results shared in this report set out their awareness and use of AI, as well as their perceptions, concerns and expectations of the technology.

Applying these insights when developing tools will support academic leaders as they prepare for an AI-powered future.

Based on the survey findings and secondary research, we recommend actions for technology developers and institutions.

GenAI technology developers can:

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

Institutions employing researchers and clinicians can:

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



References

1. Elsevier. Research Futures 2.0. April 2022. Page 64. https://assets.ctfassets.net/zlnfxb2lcqx/47ncumZe63BnUGl0PGkQbv/c3b2d1df821ff03c52d8fd4360dd5751/Research-Futures-2_0-Full-Report.pdf
2. Weale, S. UK universities draw up guiding principles on generative AI. The Guardian. 4 July 2023. <https://www.theguardian.com/technology/2023/jul/04/uk-universities-draw-up-guiding-principles-ongenerative-ai>
3. Humble, N and Mozelius, P. The threat, hype, and promise of artificial intelligence in education. 10 November 2022. <https://link.springer.com/article/10.1007/s44163-022-00039-z>
4. Elsevier. View from the top: Academic leaders' and funders' insights on the challenges ahead. March 2024. https://downloads.ctfassets.net/o78em1y1w4i4/1L4FIjiRMPtpWhN2JBUOU/e2e04002ae58dbe87e70f3d36c8003c9/View_from_the_Top_RL_WEB.pdf
5. OpenAI. ChatGPT. April 2024. <https://chat.openai.com/chat>

Notes

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

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

Follow Elsevier Connect on [X \(formerly Twitter\)](#), [Facebook](#) and [LinkedIn](#)

Report Authors

Adrian Mulligan (a.mulligan@elsevier.com)

Nicola Mansell

Lucy Goodchild (lead author)

TellLucy.com



ELSEVIER

Key Findings - Insights:
Academic leader attitudes toward AI

Elsevier August 2024