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2021

Role and Impact of AI on the Future of Academic Publishing

A Global Survey Report

SURVEY CONTENTS

FOREWORD

Artificial intelligence (AI) has immense appeal in scholarly publishing. State-of-the-art AI-driven tools are rapidly transforming industries such as education, healthcare, transportation, finance, and retail. Think about digital voice assistants such as Alexa and Siri—real-world applications of AI that are now an integral part of our daily lives! Is AI actually simplifying human decision-making or are there any concerns/challenges when it comes to adopting such a radical technology?

Let us look at what Andrew Ng (Co-founder and Lead at Google Brain) had to say when asked about building a better future with AI:

"We have seen AI providing conversation and comfort to the lonely; we have also seen AI engaging in racial discrimination. Yet the biggest harm that AI is likely to do to individuals in the short term is job displacement, as the amount of work we can automate with AI is vastly larger than before. As leaders, it is incumbent on all of us to make sure we are building a world in which every individual has an opportunity to thrive."

We at Enago, a global multinational organization specializing in editing and publication support services, designed this survey to capture the global response to learn how AI is influencing and transforming the global publishing landscape. More than 350 respondents from 212 universities across 54 countries, representing diverse countries, academic roles, and fields of research participated in the survey. Participants included researchers (early career and established), journal editors, and publishers from different fields such as biological and life sciences, medicine and health sciences, artificial intelligence, computer sciences, media communications, etc. The survey was conducted from August 27 to October 3, 2021.

Our **primary focus** was to understand the following:

- The general perception and awareness about AI
- The adoption rate and popularity of AI-based tools among the scholarly community (researchers, editors, publishers)
- The perceived benefits and concerns related to the use of AI in academic publishing
- If users appreciate the value that AI is delivering or are more concerned about the rise of AI

EXECUTIVE SUMMARY

- There is an undeniable need in driving the adoption of AI in the academic publishing domain. Although there are several reasons for this, the most obvious one is that scholarly output across the world has tripled in the last two decades.
- Researchers are in need of effective tools to ease their writing and publishing efforts. The AI wave in the scholarly publishing domain has created new ways for researchers, authors, journal editors, publishers, and other stakeholders to access and publish research.
- Recent AI initiatives and the development of new AI-powered tools have further fueled novel research initiatives. This not only includes carrying out groundbreaking research but also its faster publication and dissemination.
- This initiative will further help researchers in predicting the future of AI in research and publishing.

Presenting the **key highlights**:

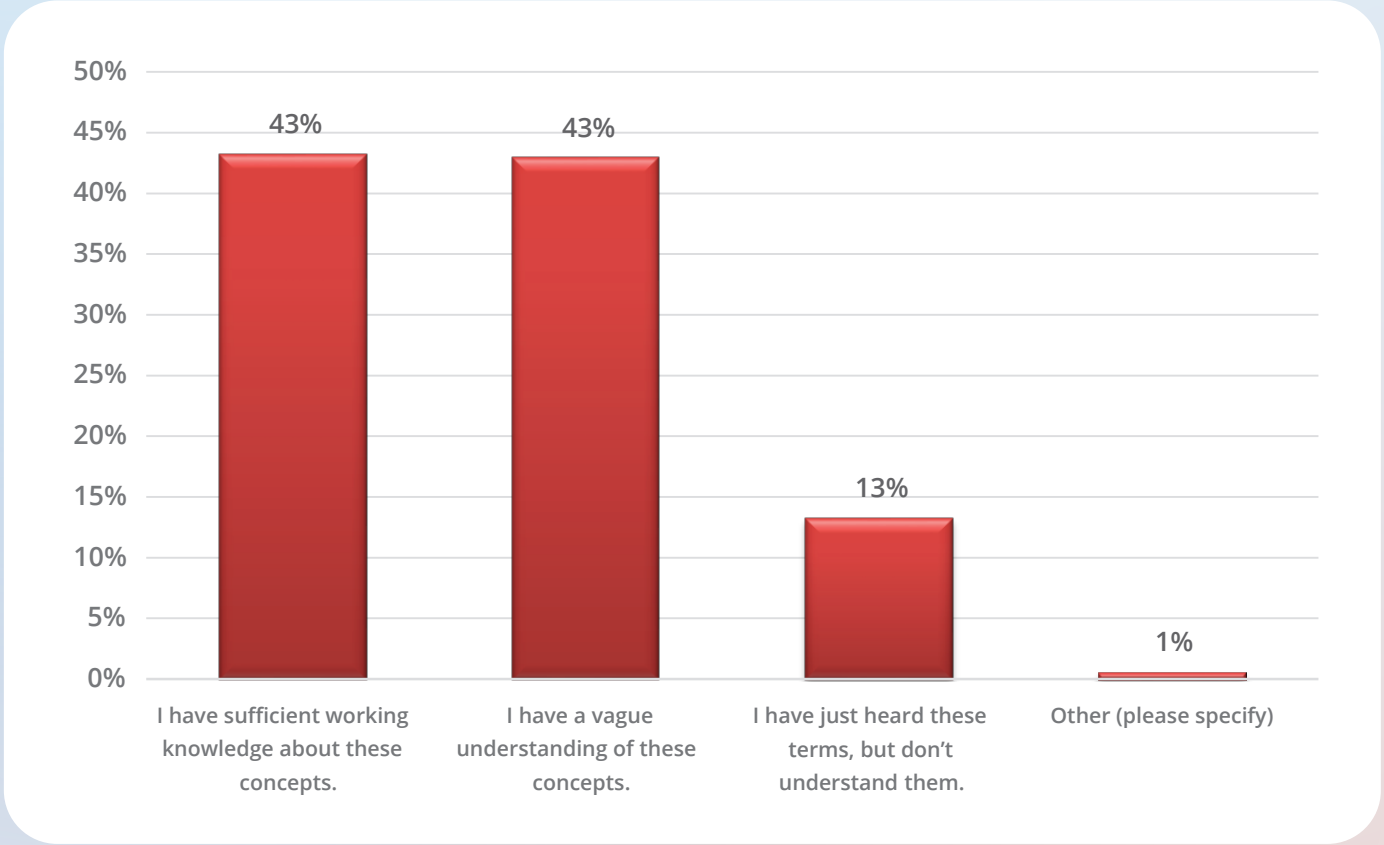
- Majority of participants represented the millennial and generation Z population. They thrive in and unsurprisingly crave for technology-advanced and information-rich environment. Meeting their needs and expectations presents a strong case for adopting AI in the academic publishing landscape.
- AI is being widely utilized for image recognition, data analytics, text analysis and summarization language enhancement, and metadata creation.
- The most popular AI-powered tools that researchers are aware of and use are Elsevier's Journal Finder, Trinka AI, Grammarly, and Mendeley.
- Reliability, accuracy, and consistency emerged to be key determinants of quality of AI-generated outputs.
- Majority of the survey respondents opinionated that the academic publishing landscape will benefit from increased automation and AI.
- Although optimistic about the impact and potential of AI, several participants expressed concerns over potential security breaches and machines overpowering or replacing humans.
- Major challenges restraining the large-scale adoption of AI are limited AI knowledge and expertise and difficulties in integrating AI-based solutions in existing IT Infrastructure.

We would like to thank everyone who participated in this survey for their ongoing commitment and dedication towards the application of AI in academia as well as uniting to have a comprehensive and profound understanding of evolution and trends in AI.

The results of the survey are presented in this report.

KNOWLEDGE ABOUT APPLICATIONS OF AI IN ACADEMIC PUBLISHING

Q1: How well do you understand the concepts of AI, machine learning, internet of things clustering, etc.?



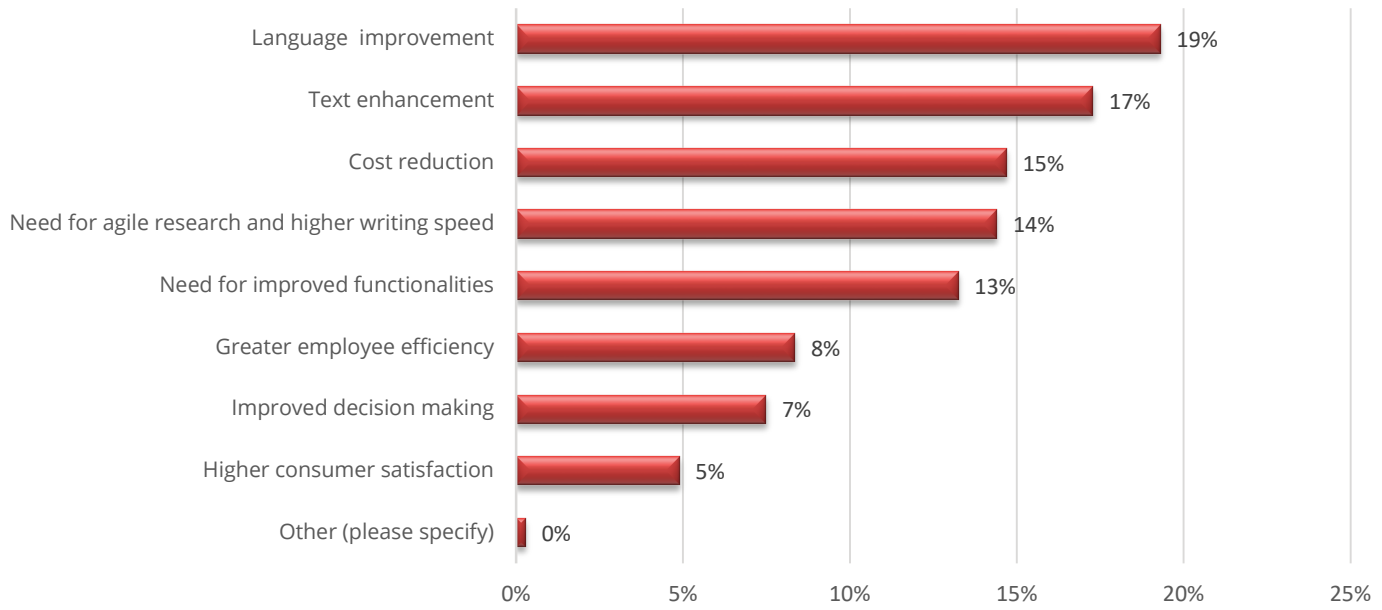
Observation:

About 86% of respondents in this survey have sufficient working knowledge of AI or at least a basic understanding of AI and its concepts. Around 13% have heard but don't understand these concepts very well. Some also mentioned that although they have theoretical understanding of the concept, but are yet to apply them in a working environment.

Key Findings:

Majority of respondents identified in the survey were graduates, post-graduates, or researchers belonging either to the "Generation Z (Gen Z)" (born from 1997-2012) or the millennial (1981-1996) generation. Rarely have they experienced life without the internet. Their digital experience will help push the boundaries of AI. Furthermore, the global COVID-19 pandemic has put a greater focus on solutions emerging from the extraordinary capabilities of AI. Generation Z (Gen Z) and the millennial entrepreneurs are touted to lead the way. Their participation in the survey shall highlight new perspectives in AI development.

Q2: What is the primary driver of AI in academia?



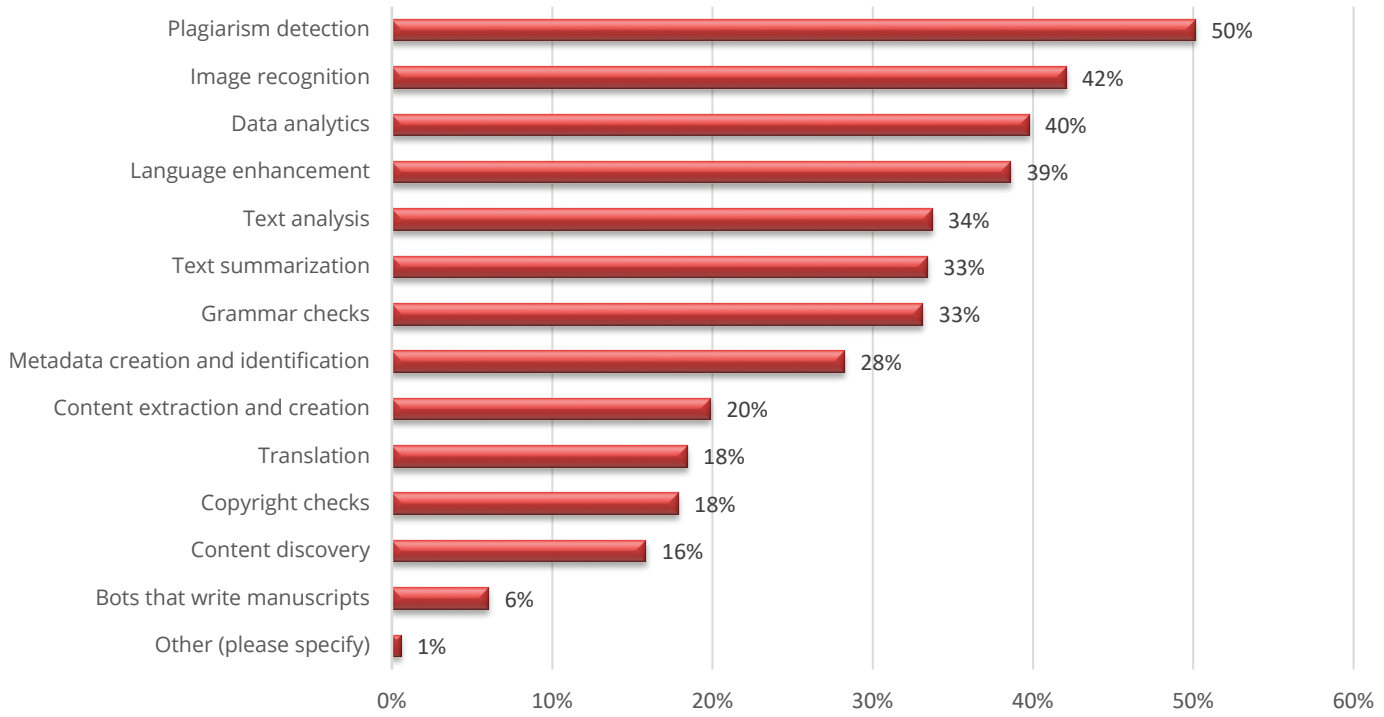
Observation:

Here, we get a better understanding of the factors driving the adoption of AI in academia. Language improvement (19%) and text enhancement (17%) were the most popular choices, followed by cost reduction (15%), the need for quick research writing (14%), and the necessity for improved functionalities (13%) in AI-based language and text enhancement tools.

Key Findings:

"Robots are not going to replace humans, they are going to make their jobs much more humane. Difficult, demeaning, demanding, dangerous, dull – these are the jobs robots will be taking", says Sabine Hauert, Co-founder of Robohub.org. Indeed, AI-based solutions are trickling down to more mundane yet extremely critical academic tasks such as editing and proofreading resulting in high-quality manuscripts. This has resulted in saving time and efforts usually spent on routine, simple, and monotonous tasks and providing academics with more room to think and explore high-impact science.

Q3: What different applications of AI are you aware of in academic publishing?
(Respondents could select more than one option from the suggested list)



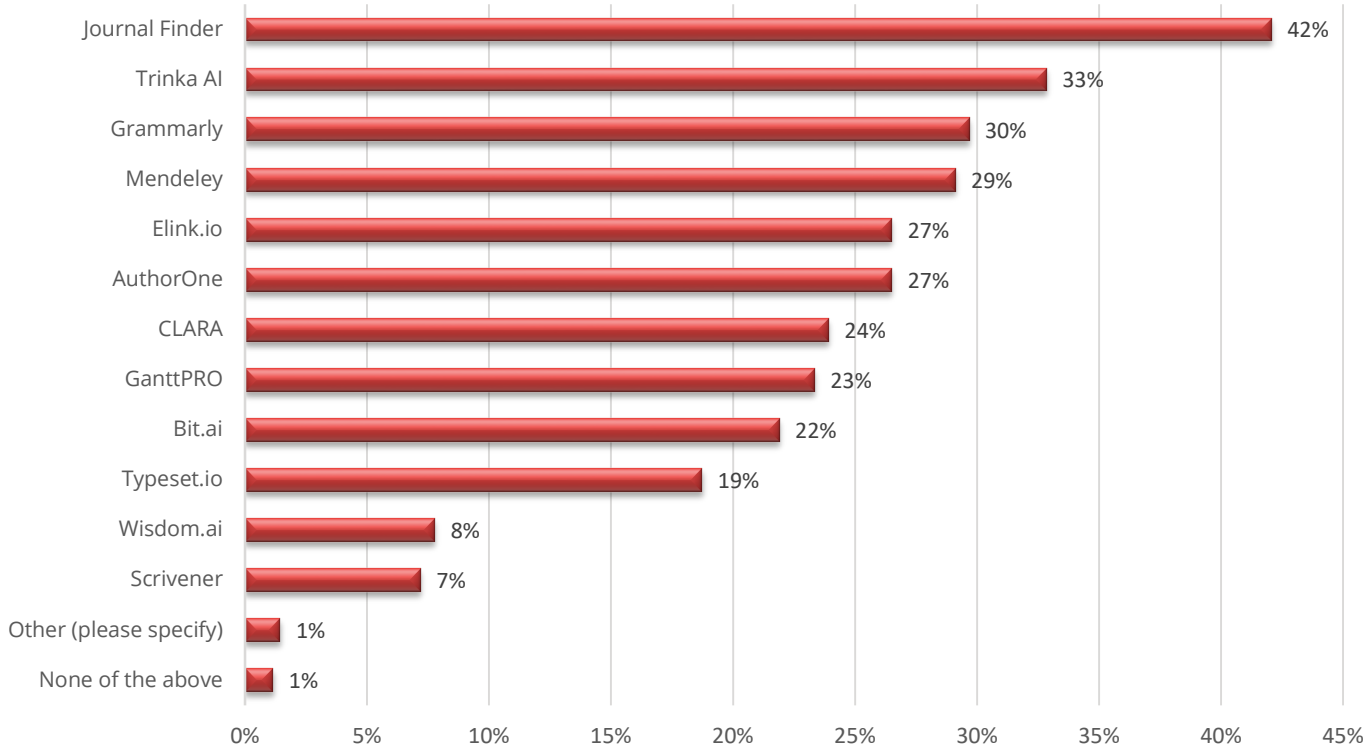
Observation:

Unsurprisingly, plagiarism detection was the most widely known application, with about 50% of academics voting for it! Image recognition (42%) followed by data analytics (40%), language enhancement (39%), text analysis (34%), text summarization (33%), and metadata creation (28%) were some other known applications of AI besides plagiarism detection. Other prevalent but lesser known applications included AI tools that help in content creation (20%) and discovery (16%), translation (18%), and copyright checks (18%). Bots that write manuscript is a relatively "new" application that few researchers (6%) are aware of. Some other responses included automated reasoning and logic.

Key Findings:

Plagiarism has become a menace and manually detecting instances of plagiarism (with the wealth of academic content available online) is no longer feasible. AI-powered plagiarism detection tools make this process a hassle-free for academics. Accurate understanding, comprehension, and dissemination of scientific literature is another crucial aspect of academic writing and publishing. With millions of documents such as review articles, research papers, or patents currently available, sifting through all of this data to extract key information relevant to your research is a big challenge! Thus, software that assists in image recognition, language enhancement, creation of summaries and metadata were the most widely known applications. Academicians are also aware of tools that help in performing data analytics tasks such as automatic tagging, identification of entities, identification of metadata such as title and author, etc. Although it may sound too good to be true, AI-powered bots are now assisting in the composition of the first draft of your manuscript, thereby, revolutionizing scientific writing. Artificial intelligence based applications are being developed to assist authors and publishers to perform activities with minimal human intervention and greater efficiency. Knowledge of and integration of AI applications into the online publishing platforms shall help in creating highly advanced and focused tools.

Q4: Which of the following AI-based tools are you aware of?
(Respondents could select more than one option from the suggested list)



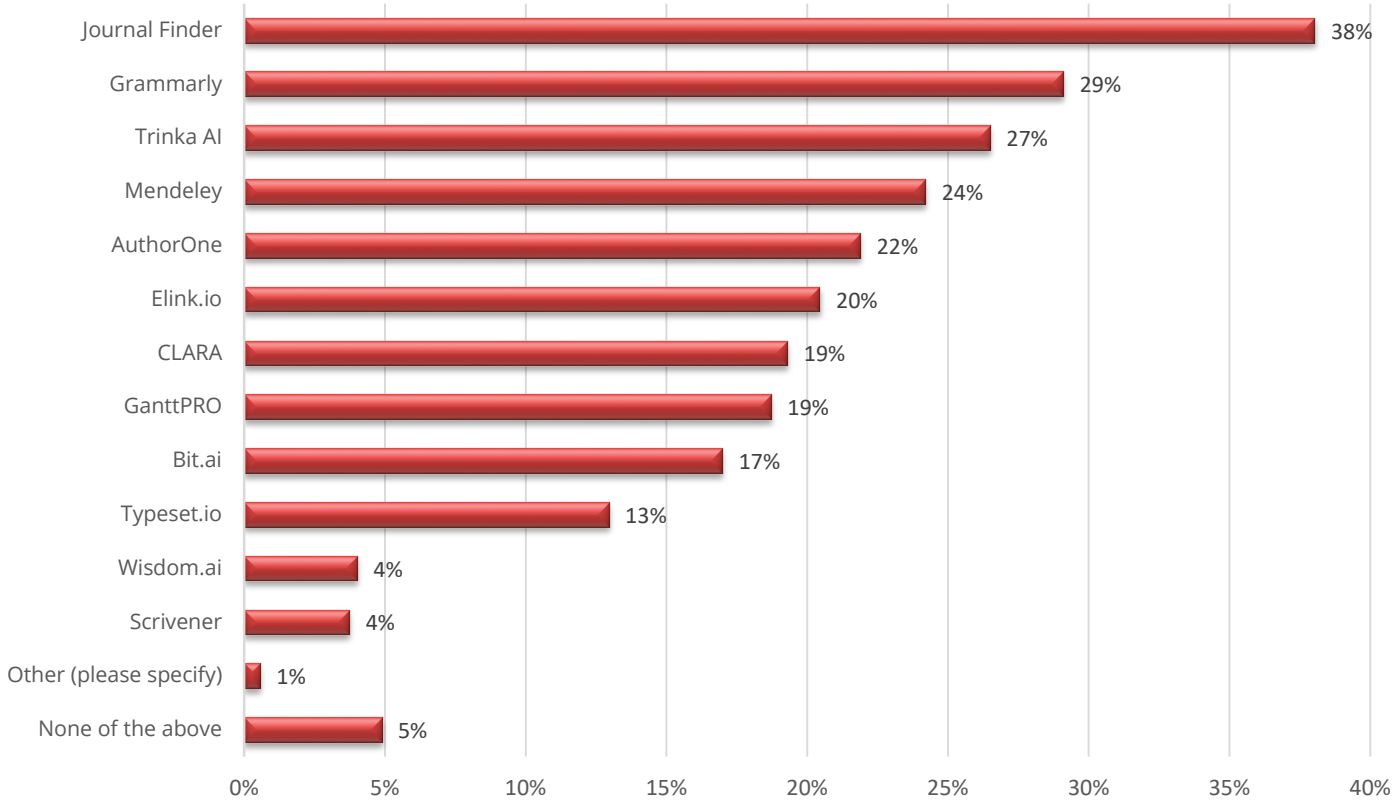
Observation:

"Elsevier's Journal Finder" with 42% emerged as the top seed! Shortlisting journals that are highly suitable for your work results in maximizing your chances for publication. Second in line were tools that help in improving language and grammar- Trinka AI (33%) followed by Grammarly (30%), and Mendeley (29%). These AI grammar checking tools provide advanced English spell checks, grammar and punctuation checks, tone, syntax, and other writing enhancements. AuthorOne (27%) stands next. It is an application that helps ensure your manuscript is submission-ready. Other popular tools include Elink.io (27%), CLARA (24%), GanttPRO (23%), Bit.ai (22%), and Typeset.io (19%). Other tools included Turnitin, DeepL, and ProWritingAid.

Key Findings:

The respondent data highlights that academicians know the potential applications of AI as a tool for generating scientific value. This information helps us determine the most popular tools known to researchers across the globe. Shortlisting journals which are highly suitable for your work maximize your chances for publication. AI grammar checking tools provide advanced English spell checks, grammar and punctuation checks, tone, syntax, and other writing enhancements. AI tools that help to ensure that your manuscript is submission-ready are also in demand. The enormous interest for the Artificial Intelligence (AI) technologies is evident from these results and can be explained by the wide area of applicability of AI-powered tools.

Q5: Which of the following AI-based tools have you used the most?
(Respondents could select more than one option from the suggested list)



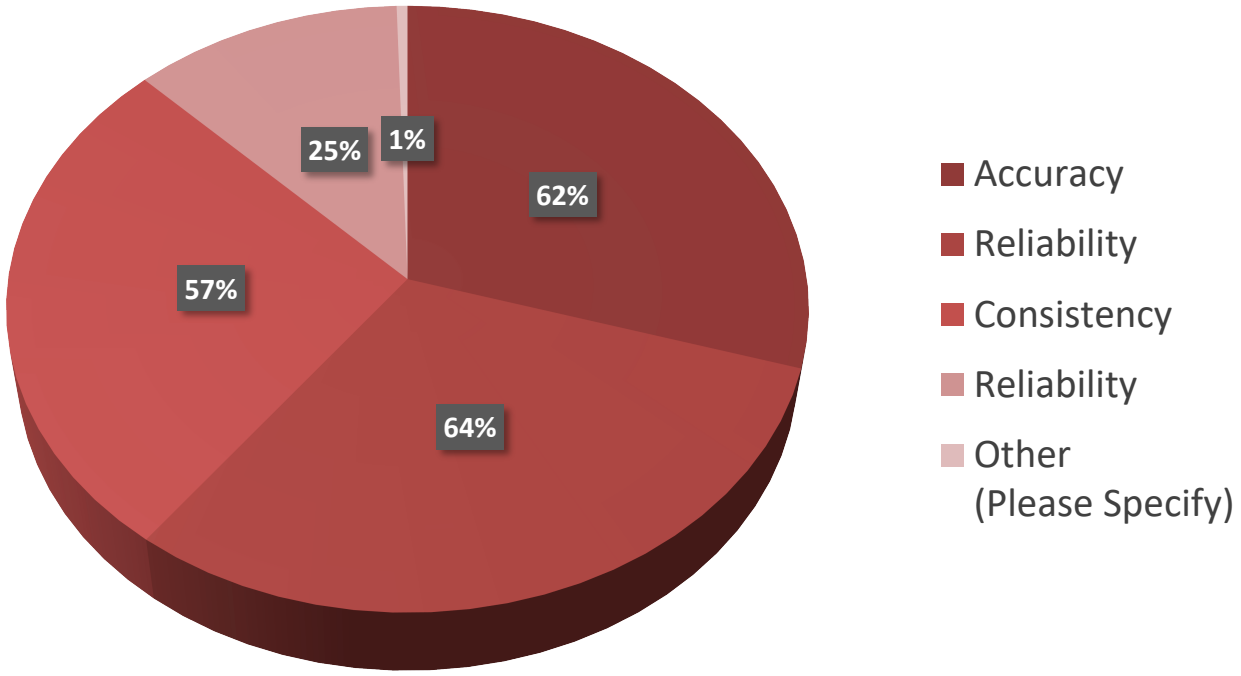
Observation:

In continuation from the previous question, we now wanted to determine which of the listed applications are considered useful in practical terms. Journal Finder (38%), Grammarly (29%), and Trinka AI (27%) emerged to be top performers here. These were followed by reference management tool Mendeley (24%) and AuthorOne (22%). Elink.io (20%), CLARA (19%), GanttPRO (19%), Bit.ai (17%), and Typeset.io (13%) were other tools that also had practical applicability in an academic setting. Some other applications mentioned were Turnitin and DeepL. About 5% participants reported that they haven't used any of these yet.

Key Findings:

Several AI-backed writing and reviewing tools are available in the market. These are widely diverse in terms of their scope, functionality, use case, and scale. Tools that help in improving manuscript quality and publication readiness (style editors, language and grammar checkers, consistency checkers) are extensively used in scholarly research. Tasks such as preparing the references section, their validation, and checking the accuracy of in-text citations often becomes tiresome for a busy researcher. AI tools are extending the required support in this domain as well! Content creation, developing webpages and campaigns for scientific newsletters, and social bio links are some other applications offered by AI that are widely used by researchers.

Q6: According to you, what are the different quality checks that are a must for AI-generated outputs? (Respondents could select more than one option from the suggested list)



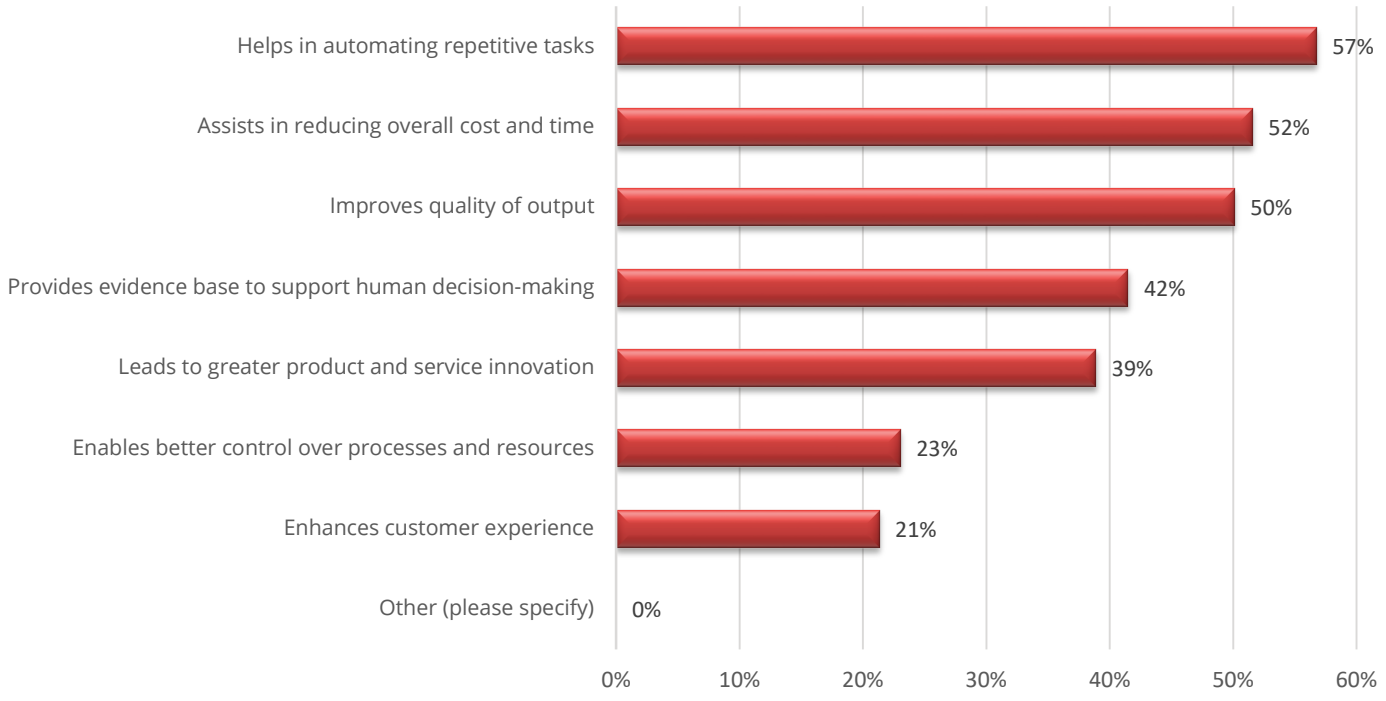
Observation:

The three top-rated quality check criteria identified by respondents were reliability (64%), accuracy (62%) and consistency (57%). Besides these, replicability (25%) of generated output was also a key factor chosen by the respondents. Other quality check criteria mentioned by the respondents include data generated being user-friendly and showing scalability.

Key Findings:

Data quality can be defined as "data fitness" such that it satisfies its intended purpose. When the quality of data is excellent, its users have high confidence in the outputs. Data accuracy reflects how well the data aligns with real-world-conditions. If the data is inaccurate, it could lead to incorrect conclusions and consequently flawed decisions. Reliability and consistency are two vital data characteristics that are perceived to be critical by researchers. A given a piece of information/output generated by one AI tool using the same resources should not drastically contradict the output generated by a different AI source/system. Additionally, data generated using the same AI resource (tool or system) must be consistent in every instance. As the old saying goes – garbage in, garbage out—developers of AI tools must ensure to use quality data when training AI tools so that final outputs are reliable, accurate, consistent, and replicable.

Q7: According to you, what are the benefits of implementing AI in research and publishing? (Respondents could select more than one option from the suggested list).



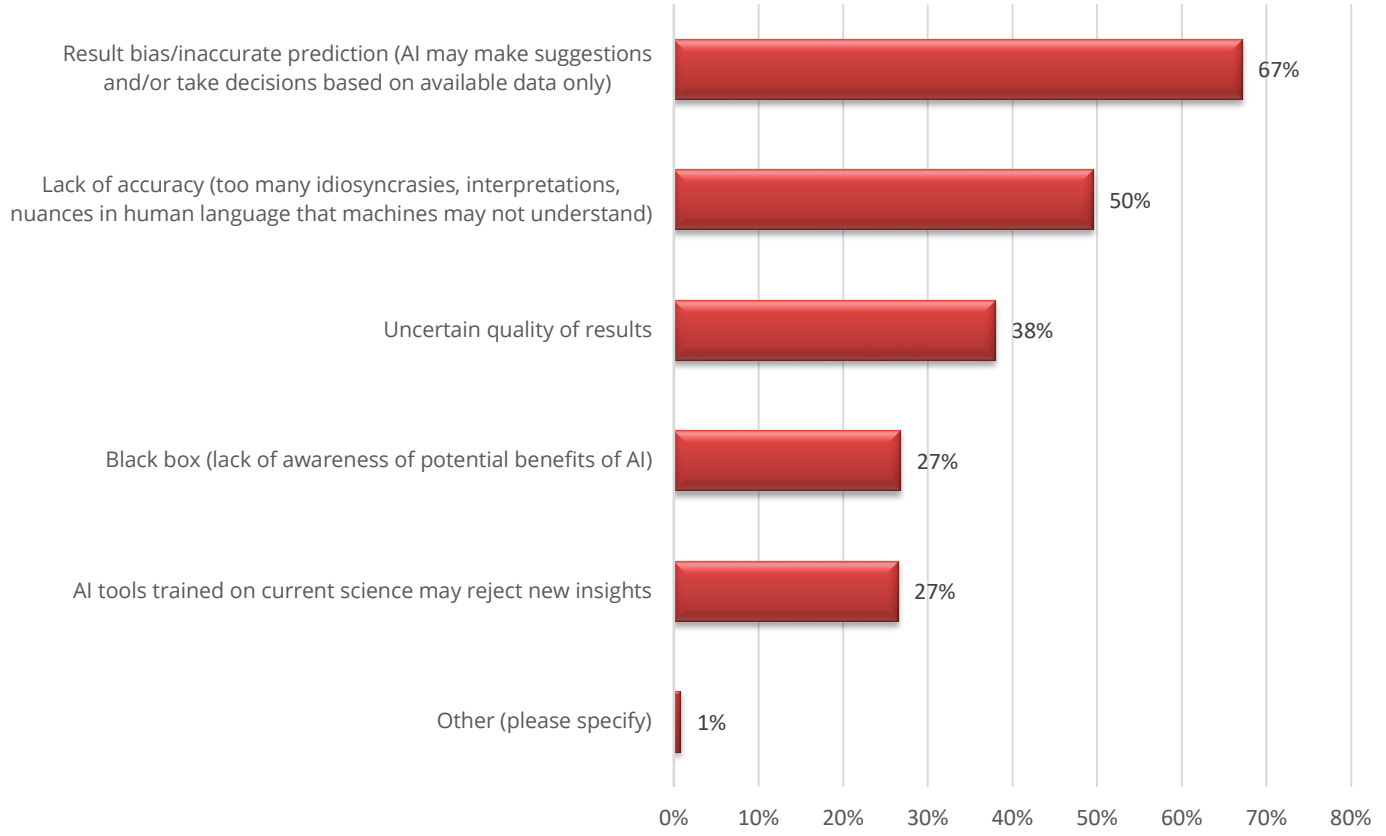
Observation:

Among the perceived benefits of AI, automation of repetitive tasks (57%), reduction of overall cost and time (52%), and improving quality of output (50%) were the most prominent responses. Following these, we believe that AI provides a good evidence base to support human decisions (42%) as well as enables users better control over processes and resources (23%). This ultimately leads to greater product and service innovation (39%) and enhancement of customer experience (21%) too.

Key Findings:

The elementary thought behind these opinions, apparently, is to apply AI tools to relatively straightforward processes such as finding potential peer reviewers, scanning articles suitable for manuscript submission, and identifying language or grammatical errors. This enables researchers and publishers to complete routine/mundane tasks rapidly with the aid of a machine. It is important to focus on research that not only makes AI more capable, but also maximizes the societal benefit of AI.

Q8: What do you think are the concerns associated with the adoption of AI?
(Respondents could select more than one option from the suggested list)



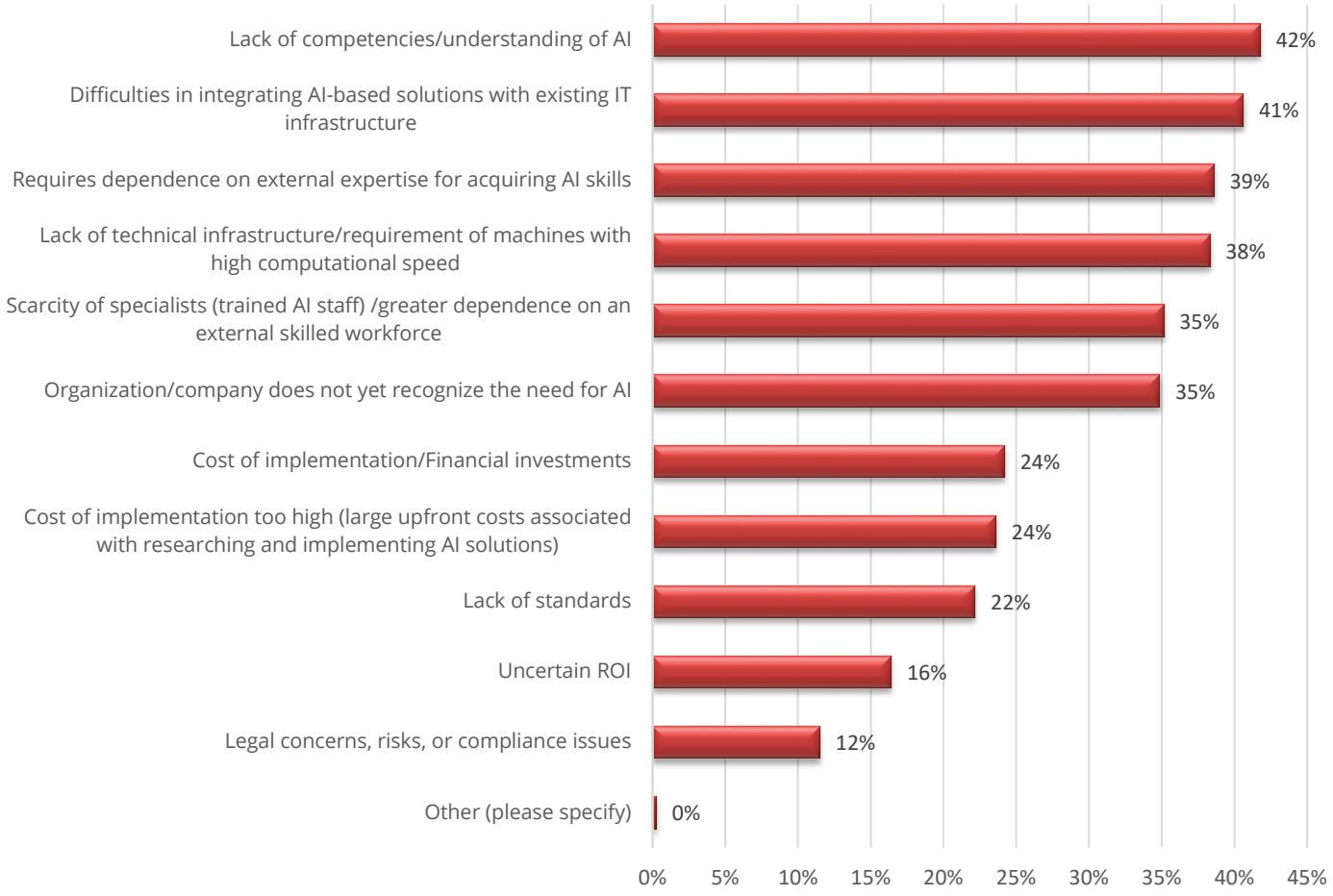
Observation:

Result bias (67%), followed by lack of accuracy (50%) emerged to be the top two concerns that resonated with academicians. These were followed by uncertainty about quality of results (38%), rejection of new insights by AI tools trained on traditional/current knowledge (27%), and the potential black box (27%) - fear of the unknown were other issues that participants were anxious about. Other concerns include lack of human interface and sensitivity to culture and gender and decreased analytical capacity of humans due to blind reliance on AI.

Key Findings:

With numerous nuances, idiosyncrasies, and different interpretations in human languages, machines might find it difficult to capture them effectively. Even super-intelligent AI systems have limitations. As most AI systems are being trained on current science, there is a possibility that it might reject new insights. Additionally, AI tools trained to understand papers in one field might not perform well when analyzing papers in another field. Tools trained on published papers may reinforce biases in peer review. Developers and tech giants need to analyze and understand public concerns and issues with AI and focus on building reliable, trustworthy, and credible systems.

Q9: What do you anticipate to be the primary obstacle in implementing AI?



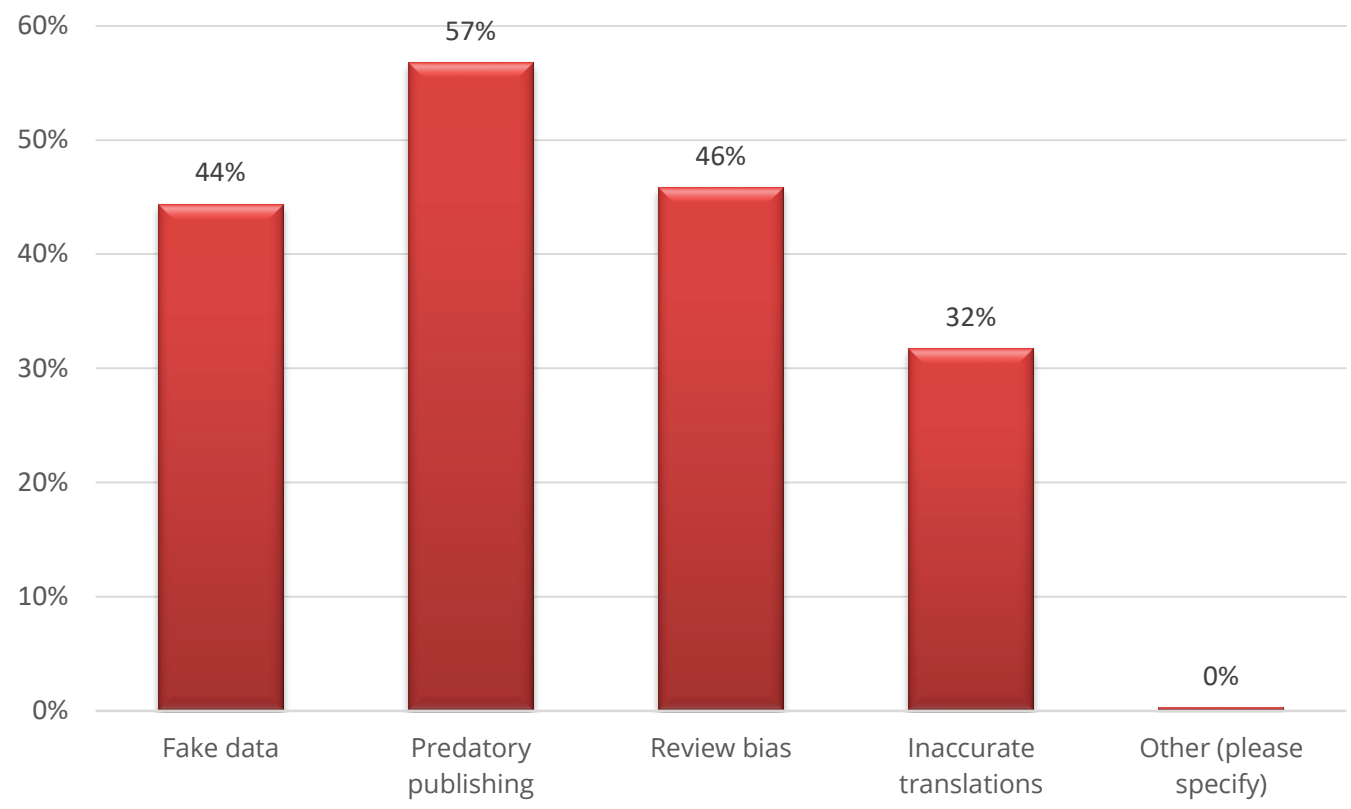
Observation:

When asked about the primary obstacles in adopting AI, responses were quite broadly divided. Lack of competency to understand AI (42%), difficulties in integrating AI-based solutions in existing IT Infrastructure (41%), lack of technical expertise and specialized equipment/software (38%) were stated as the major reasons. Consequently, academic institutions or publishers have to invest in additional training (39%) or rely heavily on AI-trained staff (35%) to implement and use AI-based tools. Furthermore, the cost of implementation (upfront investment) and maintenance, uncertain ROI, lack of standards and other legal and compliance issues were also identified as challenges. Moreover, 35% of respondents said that the primary reason for not adopting AI is the fact that their company culture does not yet recognize the need for it. Overall, there does not seem to be single dominant reason for the limited use of AI; instead, multiple smaller factors contribute to this effect. Other obstacle mentioned was instability of internet connection.

Key Findings:

Evidence from the survey suggests that the lack of AI skills and difficulties in the application of AI solutions to existing infrastructure are the most common hurdles. To overcome the expertise issue, researchers/publishers could consider collaborating with external research organizations (for acquiring AI training, skills and technology). Lack of awareness of the potential benefits/applications and use cases of AI also appear to be a significant barrier for large-scale adoption of AI. Research organizations can achieve the most significant performance improvements when humans and machines work together. Humans and AI can actively enhance each other's complementary skills and core strengths - creativity, emotions, and social skills of the former, and the quantitative abilities, speed, scalability of the latter via such collaborative intelligence. Thus, realizing this immense potential of AI, research organizations must take an initiative to recruit mature training staff and expertise to achieve the desired outcomes.

Q10: Which problems in academic publishing will be difficult to solve using AI?
(Respondents could select more than one option from the suggested list)



Observation:

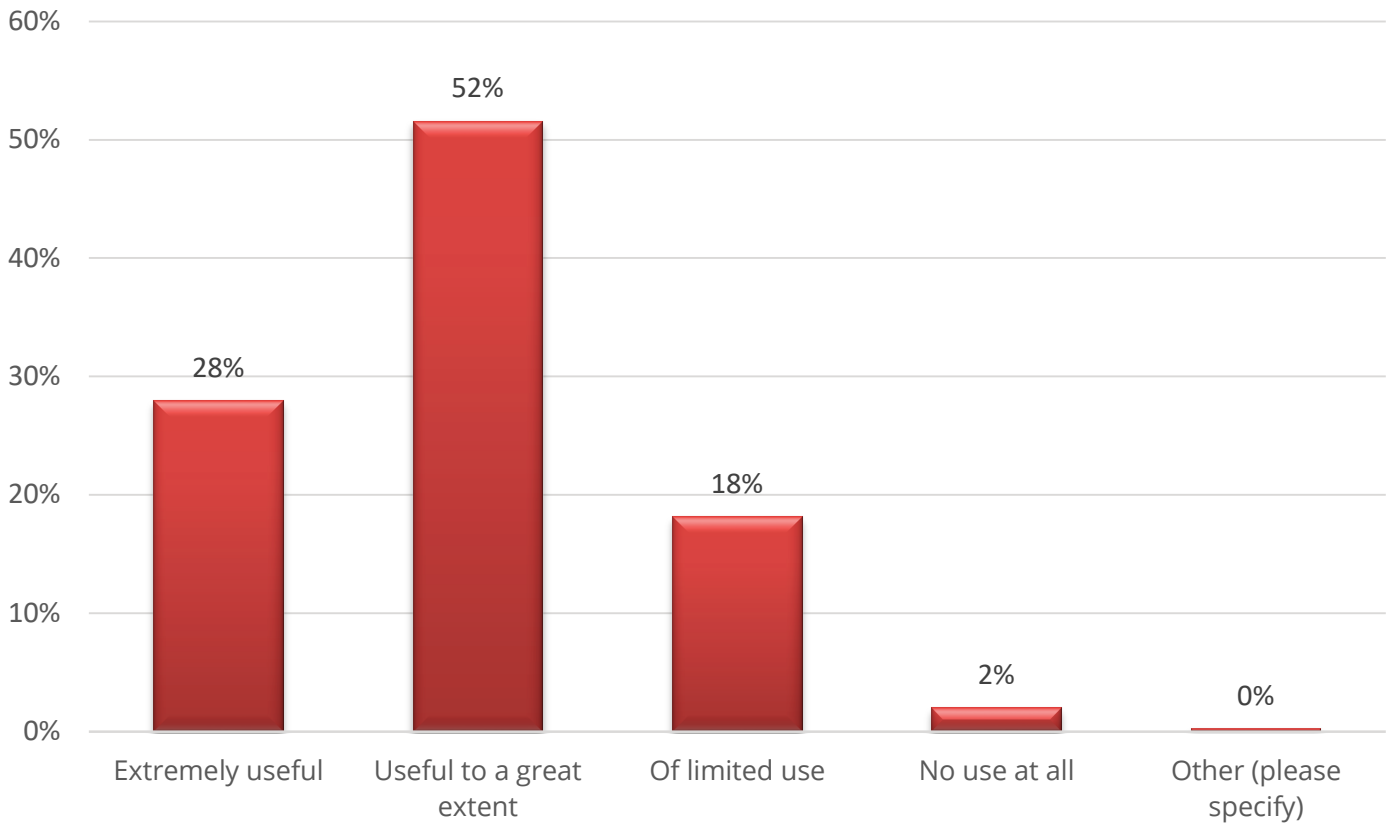
Identification of predatory publishers (57%), the problem of data fabrication or fake data (44%) and review bias (46%) were reported to be the most pressing challenges followed by the problem of inaccurate translations (32%). Other problem mentioned was non-contributory authorship.

Key Findings:

Building upon the foundation of current academic tools such as writing assistants and grammar checkers, many young AI specialists are taking innovation a notch higher by leveraging it to handle complex tasks. To understand the expectations we have from AI, our participants were asked to share their thoughts about challenges that AI might find difficult to solve. Although AI-powered machine translations provide quick automated results, they lack language nuances and appropriate expressions. Furthermore, machine translations lack in comprehending linguistic assets (expressions, emotions). Fake data or fabrication will also be difficult to spot since two pieces of misinformation/fabricated data might contain the same claim but be expressed in different ways (i.e. by rephrasing/using a different image, or switching the format frvom text to graphic or vice versa). Technologists and developers need to develop new AI technologies to match near-duplications of known fake data/misinformation at scale.

ATTITUDE AND PERCEPTION OF USERS

Q11: How useful do you think AI is in your area of work?



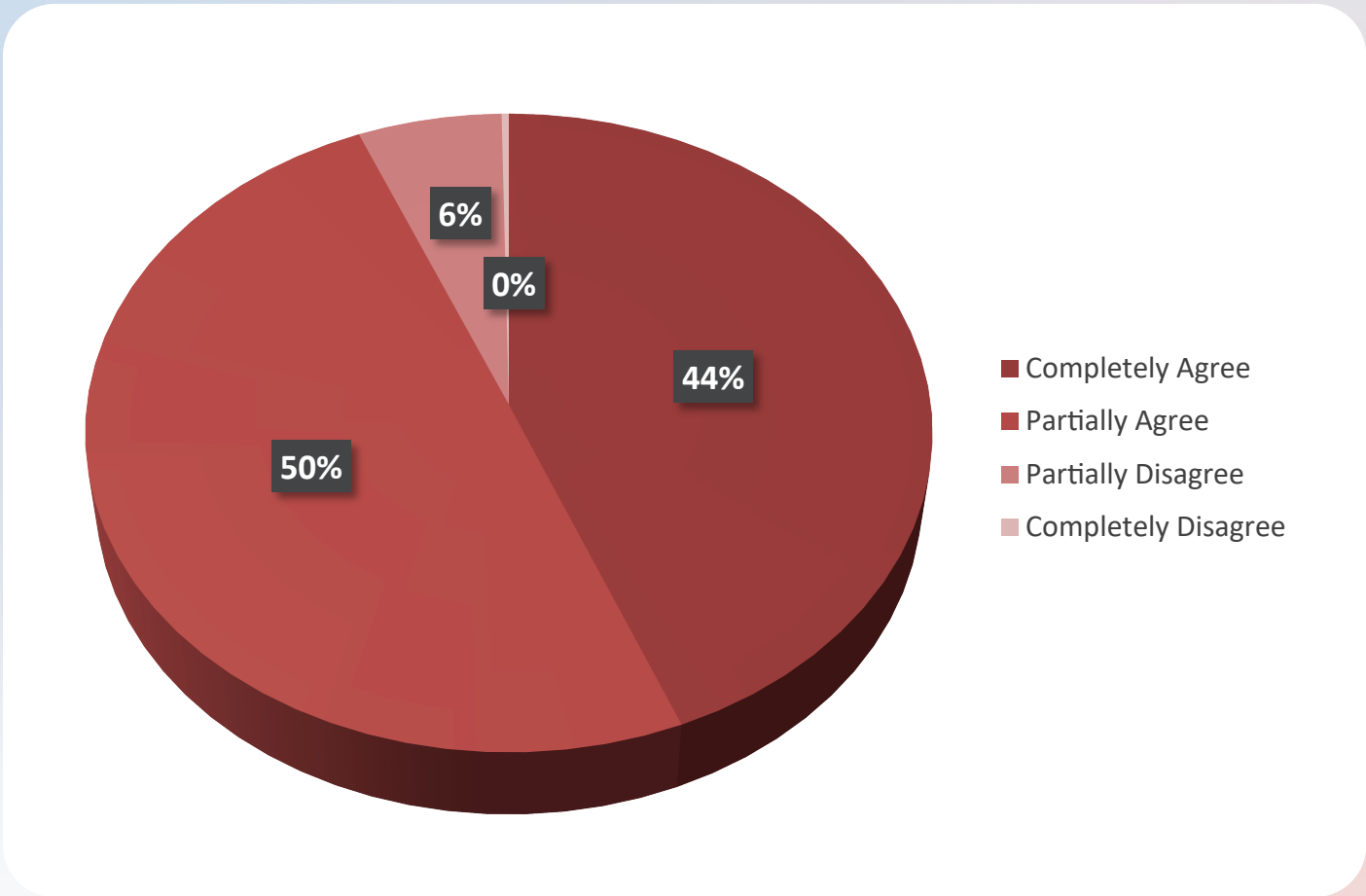
Observation:

A bulk of the respondents (~ 98%) have mentioned that AI is indeed useful in some way or the other. One of the participants specifically mentioned that it helps editors and publishers quickly process manuscripts.

Key Findings:

AI increases the quality of published science and maximizes the efficiency of the publishing process. AI-based tools assist researchers in determining whether aspects of punctuation, grammar, and spelling require more attention. Plagiarism detectors extensively scan the indexes of all major search engines to do an in-depth analysis of submitted text and detect copied parts. In the bid to become "smart publishers", researchers contemplate the need for AI-powered tools that can aid in accomplishing complex editorial tasks such as analyzing copious amounts of data rapidly, making predictions and forecasts about trending research, and taking publishing decisions based on real-time information.

Q12: The academic publishing landscape will benefit from increased automation and AI. What is your take on this?



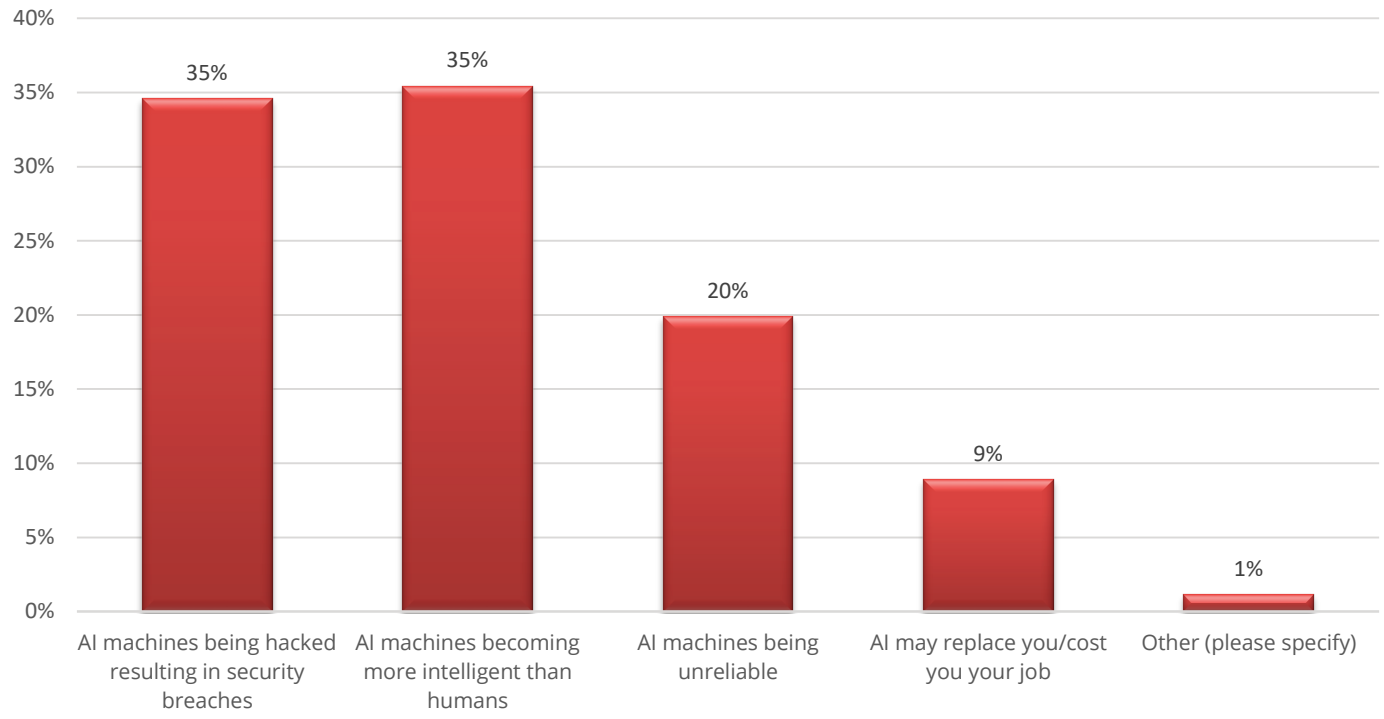
Observation:

About 94% of respondents agreed that increased automation and AI would benefit the academic publishing landscape

Key Findings:

Looking forward, majority of our key stakeholders—researchers, authors, journal editors, and publishers are optimistic about the benefits AI will deliver within the coming years. Increased automation in line with AI-powered tools can help researchers and publishers cleverly and efficiently optimize their workflows and consequently magnify their ability to deliver high-quality research. There is no doubt that AI will act as a critical factor in the future success of the publishing industry.

Q13: Which of the following scenarios concern you the most?



Observation:

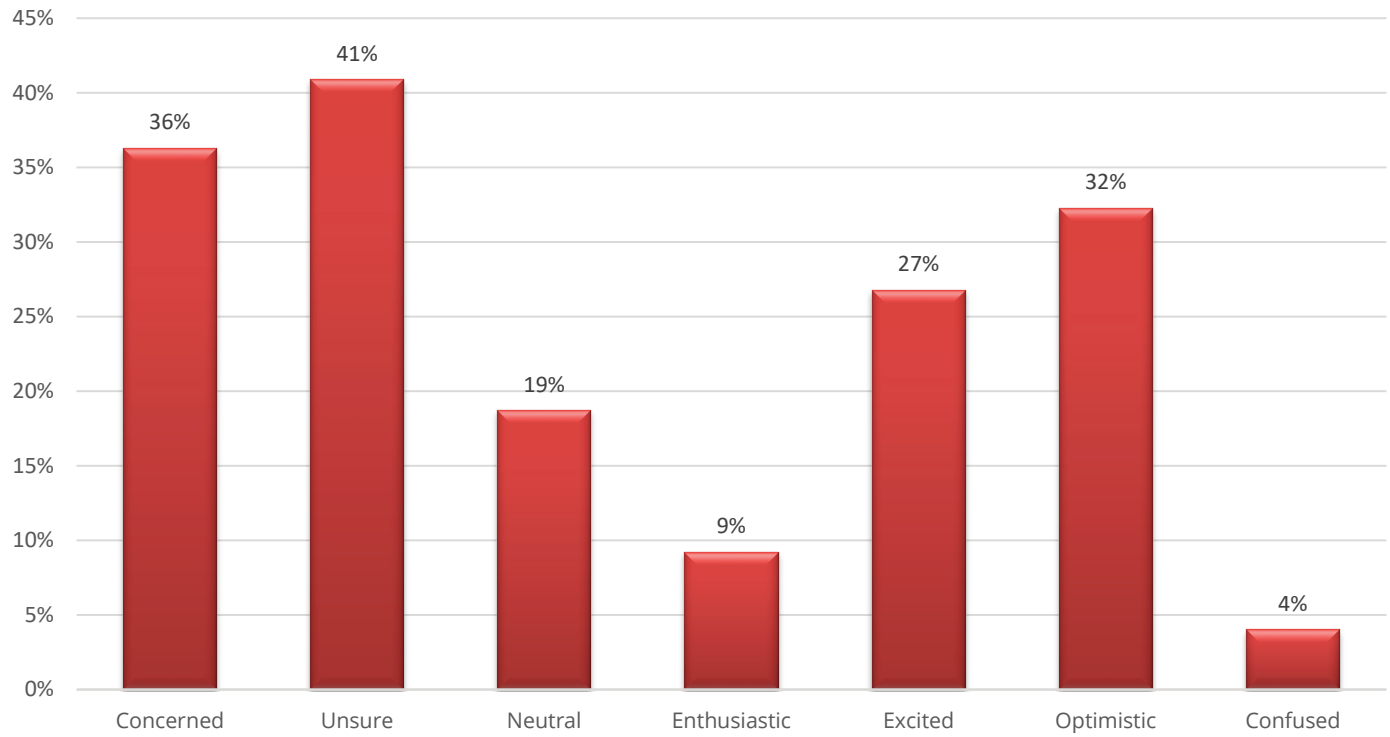
The two most pressing concerns reported in the survey were AI machines becoming more intelligent than humans (35%) and the fear of security breaches (35%). Some smaller concerns included AI-powered machines being unreliable (20%) and AI replacing humans with respect to jobs (9%). Other concerns mentioned by our survey participants include AI technologies becoming more intelligent than the present conditions and decreased analytical capacity of humans due to high dependence on AI technologies.

Key Findings:

From Stephen Hawking's words on AI: *"The development of full artificial intelligence could spell the end of the human race. It would take off on its own, and re-design itself at an ever-increasing rate. Humans, who are limited by slow biological evolution, couldn't compete, and would be superseded."*

Many scholarly minds might resonate with this quote and share similar fears. However, developers must ensure to develop AI in a way that enhances rather than completely substitutes human input. In this way, the technology will act as a "productivity booster" for academicians rather than a job stealer. Furthermore, the data and methods supporting the state-of-the-art AI tools are vulnerable to cyber-security attacks. Academicians fear that adversaries might manipulate these tools, thereby altering their behavior to serve a malicious end goal. It is critical for developers to implement AI security compliance programs to reduce the risk of attacks/breaches on AI systems.

Q14: How do the prospects of the rise of AI in academic publishing make you feel?
(Respondents could select more than one option from the suggested list)



Observation:

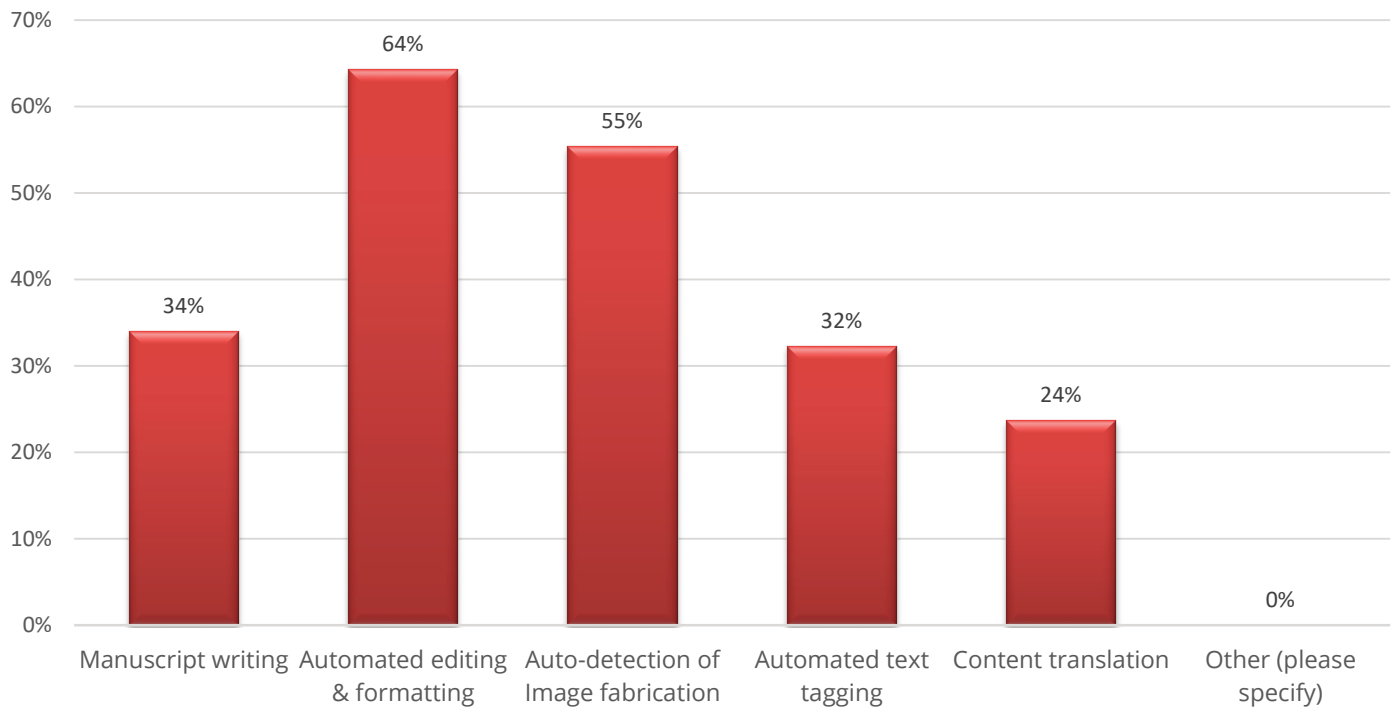
The house is divided here. About 76% of survey participants show concern or are rather unsure about the rise of AI in the academic publishing domain. However, a good number of participants (68%) show a positive outlook towards the growth of AI.

Key Takeaway:

Overall, the survey results reflect a cautious optimism. AI is a two-edged sword. The dichotomy between potential AI benefits versus probable challenges and concerns are evident from our previous findings.

FUTURE PROSPECTS OF AI

Q15: AI-based grammar checkers, spellcheckers, and plagiarism tools have become integral to the writing and publication process. What more should AI do to improve the quality of writing and publications? (Respondents could select more than one option from the suggested list)



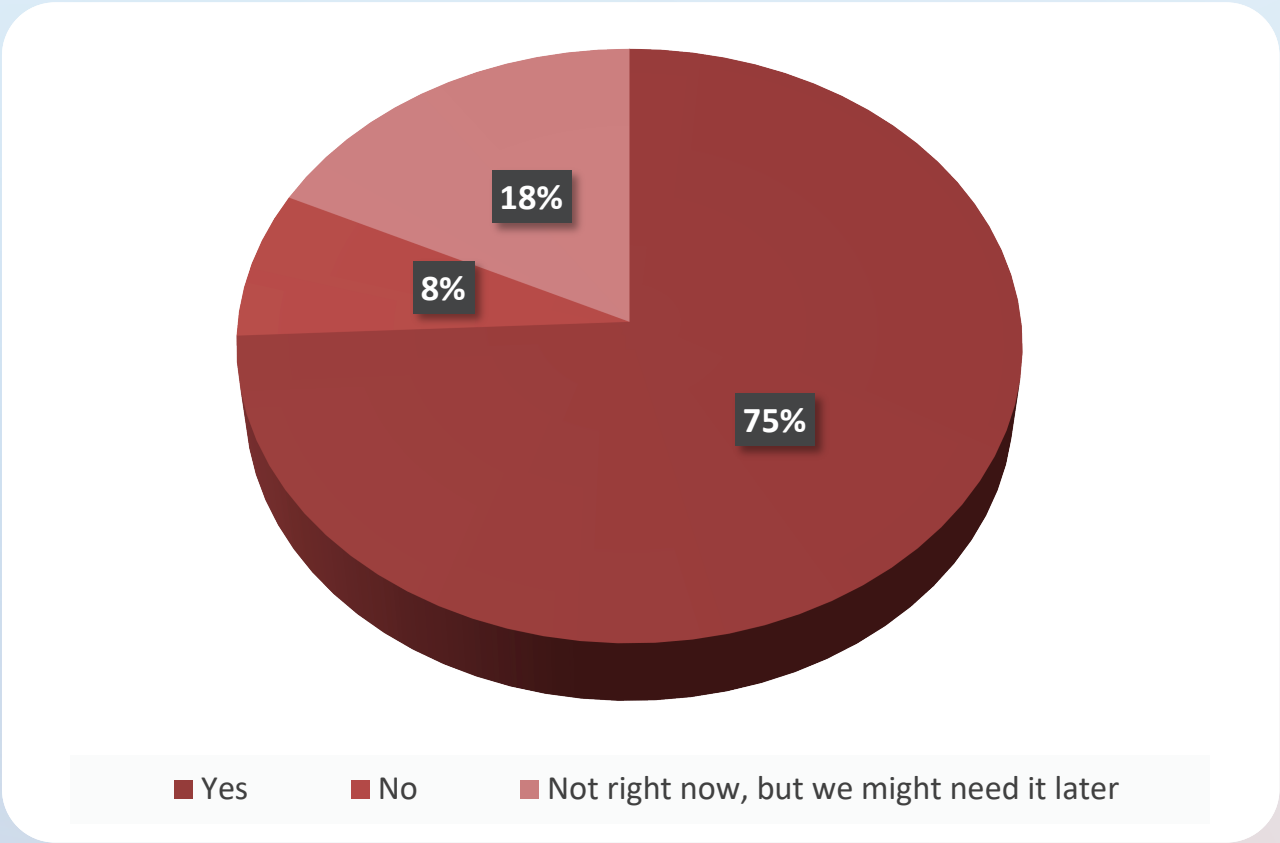
Observation:

When asked what more AI could do to improve quality of writing and publication, about 64% up voted automated editing and formatting, followed by auto-detection of image fabrication. About 32% suggested the automation of text tagging and the process of manuscript writing (34%).

Key Findings:

This information will enable AI developers to provide technical add-ons to existing AI-based algorithms. In the imminent future, academicians are hoping to see manuscript writing tools that can draft error-free scientific manuscripts and manuscript reviewing machines that can appraise the content.

Q16: Do you or your department need expert advice on how you can use AI to facilitate your publication journey?



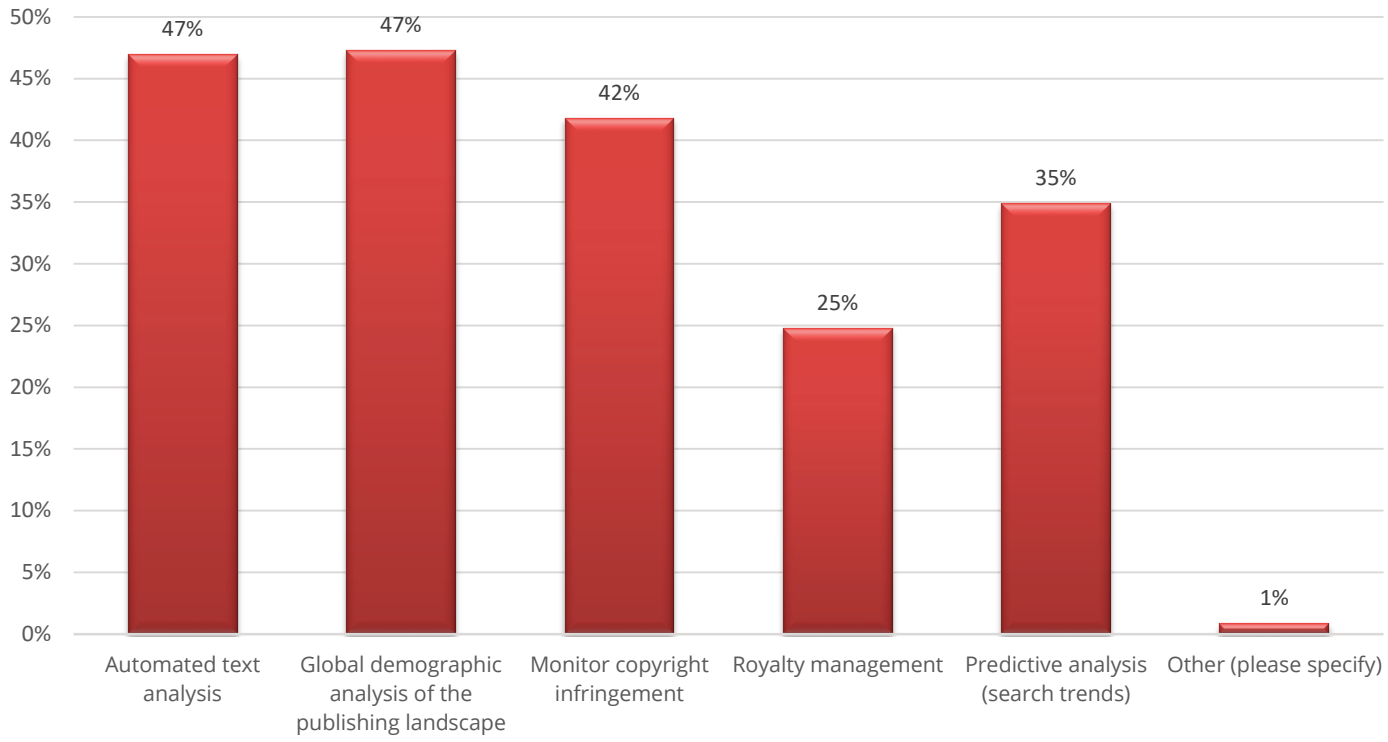
Observation:

The single largest response (77%) from our survey participants was that they do need expert advice on how to successfully and effectively implement AI to ease their publication journey. About 18% mentioned that they might require AI assistance in the near future.

Key Findings:

Majority of our survey participants agree that AI has the potential to augment the academic publishing processes. However, many institutions and organizations are still in the nascent stage in this regard. They are unaware of how to implement AI solutions in their workflow and where to begin. We feel that there is a pressing need for focused webinars, conferences, and workshops to support and facilitate researcher's understanding and usage of AI tools and algorithms in practice. These sessions must also provide insights on the impact of AI technologies on academic institutes and research organizations, the implications AI will have on publishing processes, and the ways in which its performance can be enhanced.

Q17: What kind of AI assistance or access do you need in your current role?
(Respondents could select more than one option from the suggested list)



Observation:

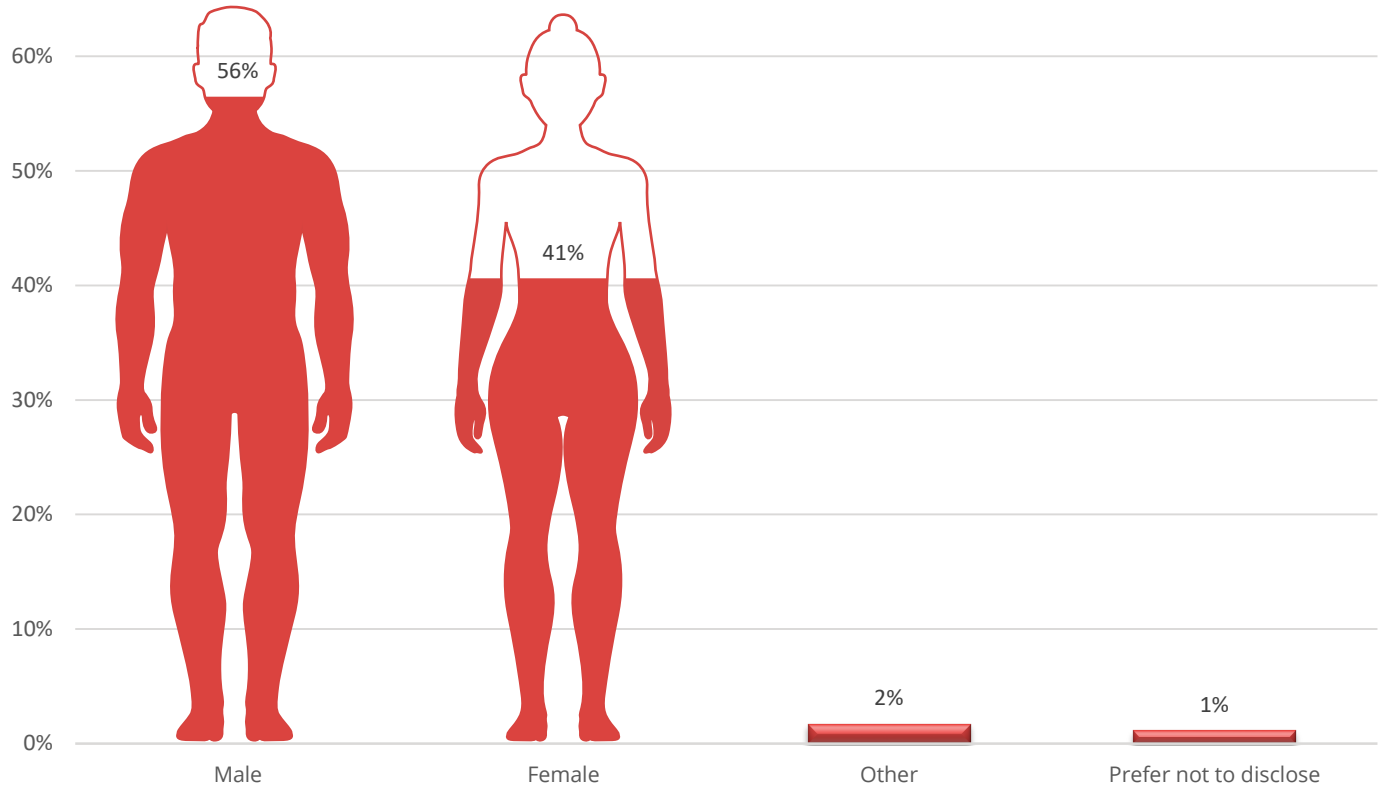
As a follow-up to the previous question, we wanted to determine if there was any specific AI-assistance required by the academic community. Bulk of the responses (>40%) suggested the need for AI tools that could help them with global demographic analysis, perform automated text analysis, and monitor copyright infringement. A good number of participants also proposed to develop AI powered tools that could perform predictive analysis (35%) and manage royalties (25%). Some participants also mentioned they would need assistance for translation, understanding machine learning and the scope of AI in the academic publishing domain.

Key Findings:

Artificial intelligence-assisted tools are redefining the scholarly landscape. Academicians have to be aware of what is unfolding before them and what preceded. Making data-driven decisions is the need of the hour. Hidden inside scientific literature, there's a wealth of untapped information. With text analysis, global demographic analysis, and predictive analysis AI tools, researchers can convert this unstructured text into meaningful data.

SURVEY DEMOGRAPHICS

Q18: Gender distribution



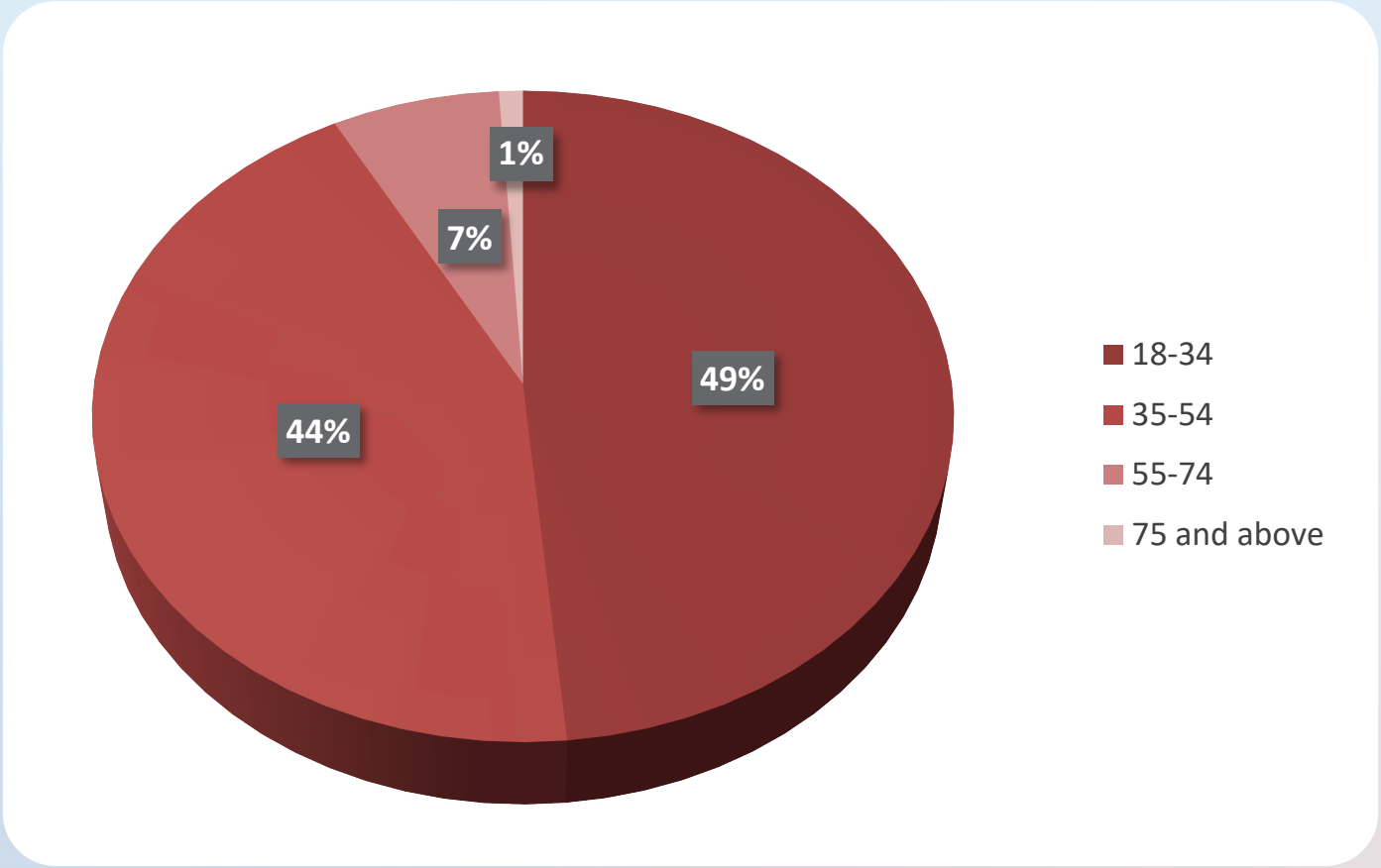
Observation:

We observed higher male participation (56%) as compared to females (41%).

Key Findings:

The scarcity of women among AI professional and machine learning researchers is hardly surprising. In a survey by World Economic Forum, it was found that globally only 22% of AI professionals are female, compared to 78% who are male. Additionally, the wider field of computer science is well documented as being dominated by men. This could be one of the primary reasons for the gender disparity seen among participants.

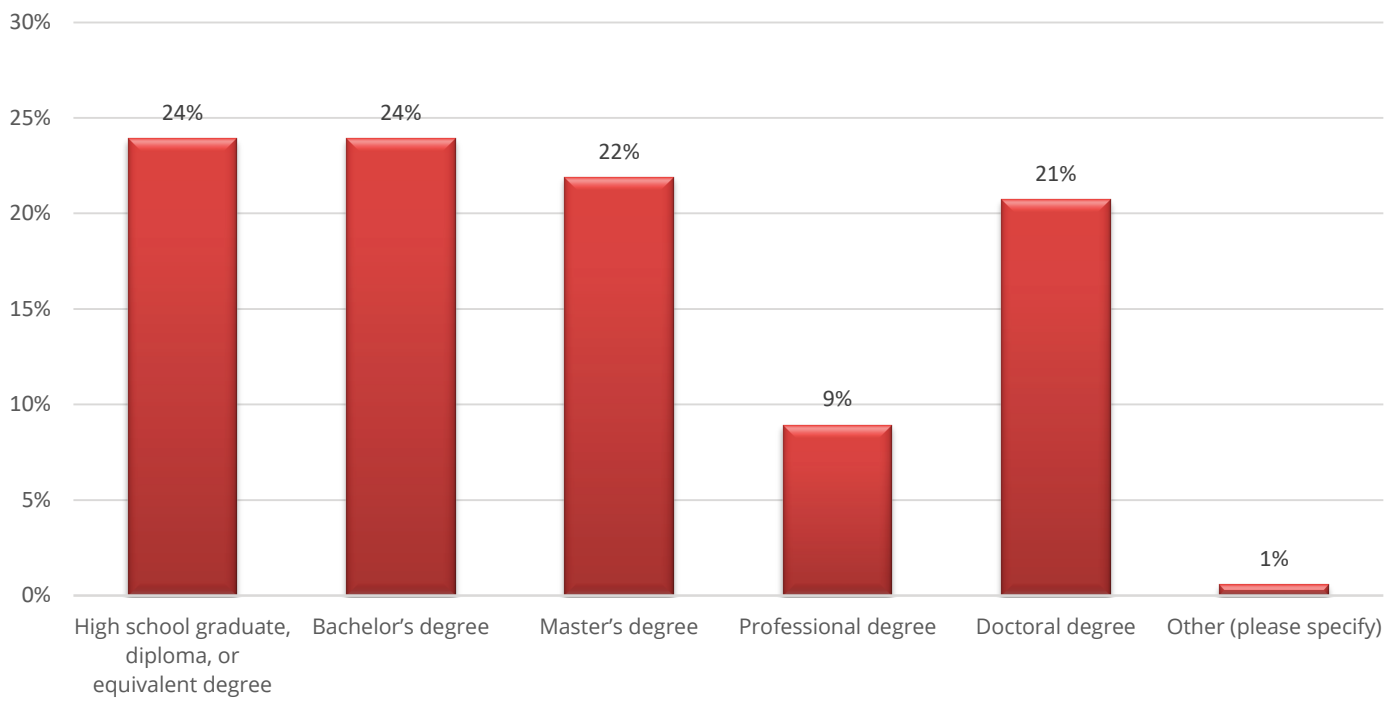
Q19: Age group distribution



Observation:

The highest number of survey participants belonged to the age group of 18-34 (49%) followed by the age group of 35-54 (44%). Only a few, about 7% belonged to the experienced age category of 55-75.
Undoubtedly, millennials, generation X and generation Z are now the largest consumer group for AI. As a result, it only makes sense to consider their thoughts and feelings when deciding which AI tools would be in their best interests.

Q20: Education (Highest degree or level of school completed)

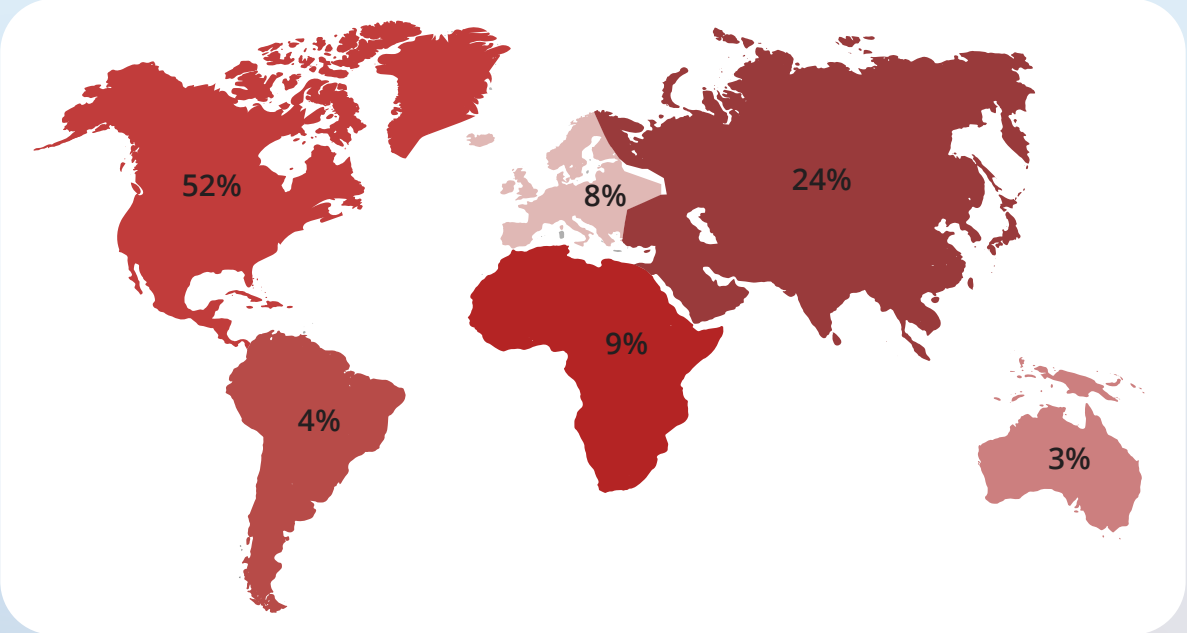


Observation:

Among respondents from over 212 institutes and universities, about 24% each identified themselves as high school graduates and students holding a bachelor's degree, followed by Master's (22%) and doctoral (21%) students. Around 9% individuals had a professional degree.

This indicates that our survey had a healthy mix of students. The survey results are a representation of what the future academic workforce thinks about AI.

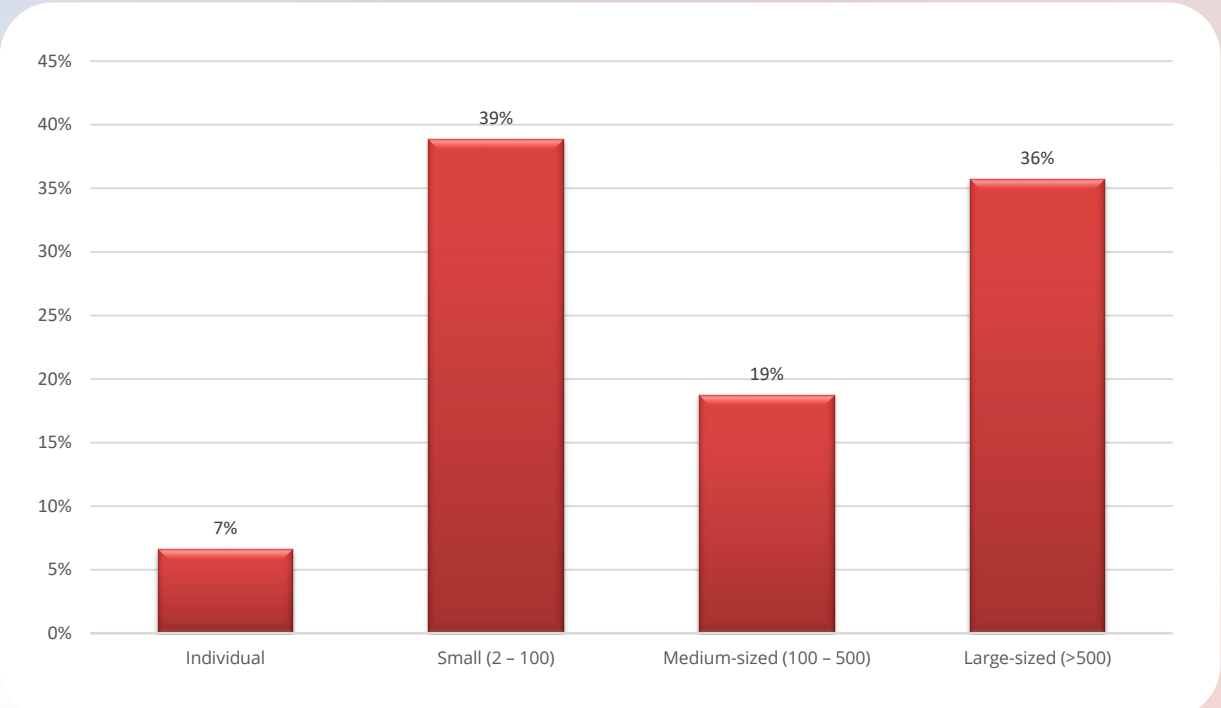
Q21: Geographical distribution



Observation:

Our survey attracted a diverse audience group and we received responses from participants across 54 countries worldwide. The majority of our respondents belonged to North America (52%) and Asia (24%) which are known to be knowledge hotspots for the use of AI in various sectors. Surprisingly, Africa (9%) showed a greater representation in the applications of AI in academia followed by Europe (8%) and South America (4%). Regions with the least representation included Australia/Oceania (3%). As next steps, we plan to conduct additional surveys specifically in these regions to derive a comprehensive conclusion.

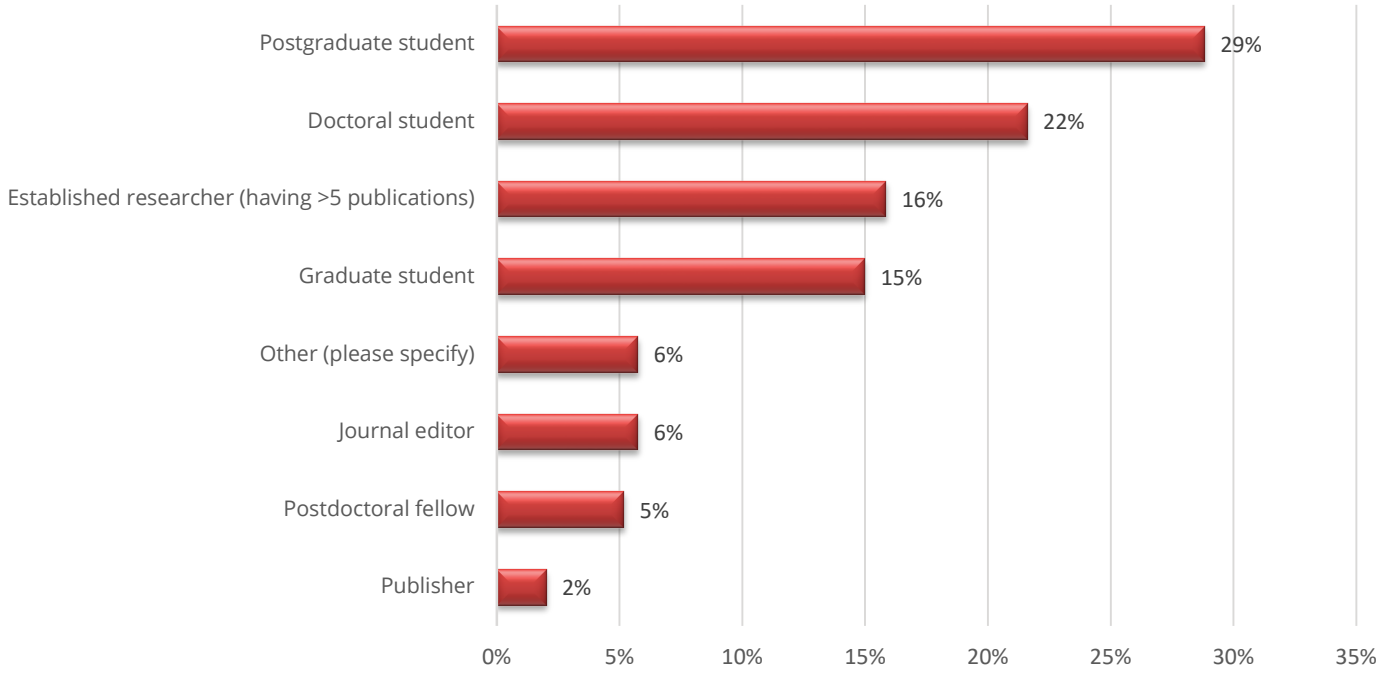
Q22: Size of organization/institution



Observation:

Majority of survey participants were either from small-sized organizations (39%) or large sized organizations (35%). We also saw good participation from participants belonging to medium-sized organizations (19%). About 6% were individual contributors. We observed a good participation from the intended target audience, which specifically included academic institutions and research organizations.

Q23: Job title

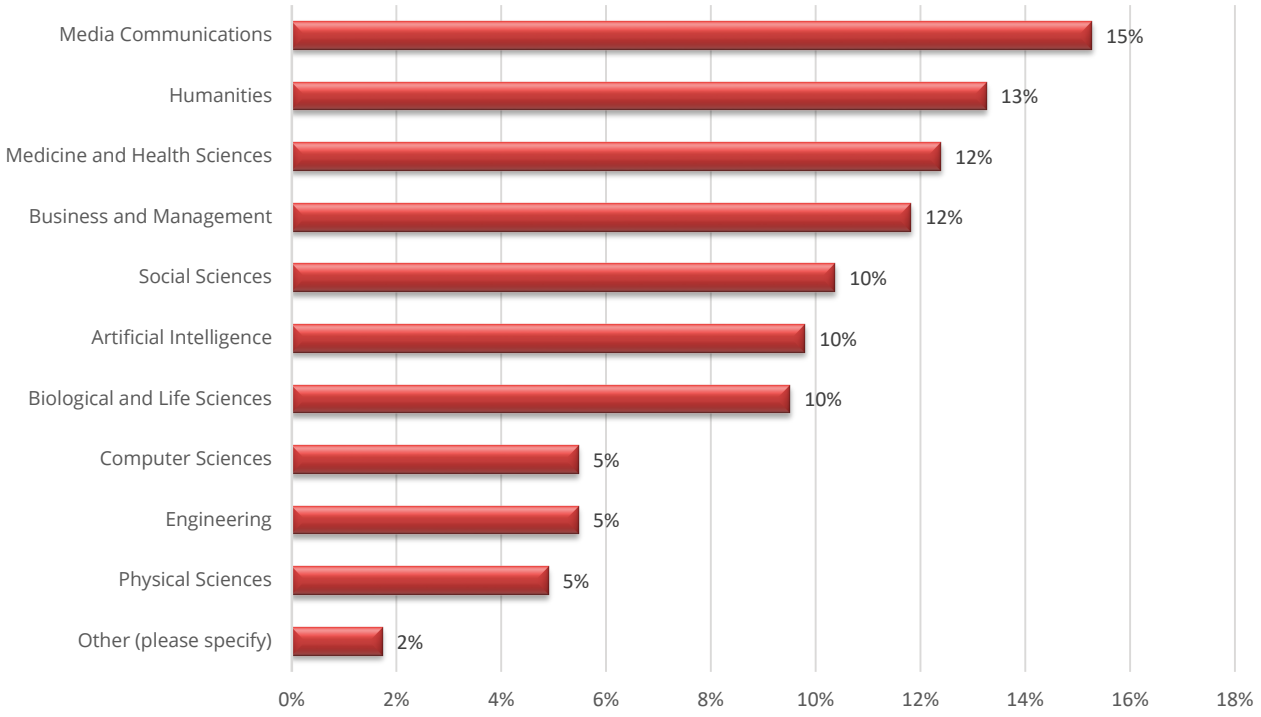


Observation:

About 29% of survey respondents identified themselves as postgraduate students, followed by doctoral students (22%), established researchers (16%) and graduate students (15%). Small fraction of respondents (about 5%) were journal editors, publishers, and postdoctoral fellows each.

A significant number of survey respondents belonged to the actual target user group required for this study. This should give a fair understanding of the usage and impact of AI tools in the current scenario.

Q24: Primary field of research



Observation:

The survey demonstrated a healthy mix of participants from all science and non-science fields.
About 37% of the survey respondents had a background in STEM (biological and life sciences, medicine and health sciences, physical sciences, engineering, and computer sciences), while around 23% were from the Social Sciences and Humanities. Surprisingly, we observed maximum participation from non-science fields like Business Management (12%), and Media Communications (15%). We also had 10% participation from academicians belonging to the field of Artificial Intelligence. Some participants also reported to be from the field of cosmetic chemistry, chemical science, and veterinary public health fields.

NEXT STEPS

- The results of this survey provide interesting insights into how AI-supported innovations are perceived and used by key stakeholders of the academic ecosystem, such as publishers, editors, reviewers, and readers. Overall, the take-up of AI in academic publishing is promising and demonstrating a steady progress.
- Researchers, authors, editors, and publishers are already experimenting with AI tools to improve the current workflow and efficiency. So, what's slowing down AI adoption? Two challenges: scarcity of data and expertise. Majority of survey respondents have claimed that a major limitation to implementing AI is the lack of knowledge, trained in-house staff, and resources.

- With increasing demand for quality publication with higher peer review speed, undoubtedly AI will become more commonly used in academic publishing. As the technology improves, not only will it assist in increasing the efficiency and reducing costs in the current research ecosystem, it might also transform it completely. There's no question about the role and critical thinking abilities of humans in the preparation and evaluation of manuscripts, but AI tools can be applied to augment tasks that humans have traditionally carried out. They can indeed provide higher scale and speed.

Now the only question is how far we should push the limits of AI.

METHODOLOGY

The survey was designed by Enago Academy and made available to users in English. It comprised 26 questions, including demographic ones, and had a completion time of about 15 minutes.

ABOUT ENAGO

Since 2005, Enago has been a global leader in language services ranging from editing to publication support. It has also built robust AI products for researchers, publishers, societies, universities, and government research bodies.
Enago has a diverse team of physicians, PhDs, MDs, and journal peer reviewers with an average experience of 19.4 years and competence in 1,600+ subjects in STEAM. These experts have an in-depth understanding of publication standards and work with authors and clients to develop comprehensive publications that comply with good publication practices and industry guidelines. Our "Author First, Quality First" approach has always led us to deliver high-quality services and a superior user experience.

ENAGO- WORLD'S LEADING AUTHOR SERVICE PROVIDER

Founded in 2005

Worked with the global research community in more than 125 countries

Local operations in 15 countries

Market leaders in Japan, China, Korea, LATAM

2 million+ authors assisted in 125 countries

1400+ subject areas covered

19.4+ years experience

bsi. ISO 9001 Quality Management — ISO 9001:2015 Certified

bsi. ISO/IEC 27001 Information Security Management — ISO/IEC 27001:2013 Certified

ISO 17100 Requirements For Translation Services — ISO 17100:2015 Certified

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Enago Academy
A comprehensive multilingual knowledge sharing and discussion platform assisting the global research community.

Webinars
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Workshops
Live and on-demand webinars conducted in multiple languages by industry experts to facilitate the learning process of researchers globally.

Enago Learn
Online training program containing 15+ informative courses on all aspects of the academic publishing process.

Enago Consult
Industry's first live, one-on-one video consultation and mentorship service for researchers.

Manuscript Services

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Publication Support Services
Amplify your changes of getting published in high-impact international journals with our one-stop solution that supports you until you get published.

Video Abstracts/Summaries

Custom made video abstracts and summaries

Medical Writing Services

Expert writing services to present your data as research papers

ABOUT ENAGO ACADEMY

At Enago Academy, we are passionate about helping early career researchers overcome all challenges in publishing their work in top journals. This also reflects in our efforts to help experienced and busy researchers in building their research profile and maximize opportunities for career growth. We primarily focus on providing knowledge resources on research writing, publishing in journals, and promotion of published work. We see these areas as the least transparent and most misunderstood aspects of academic publishing and a major obstacle for groundbreaking research getting published. We believe that there is a better way to aid academics in fulfilling their research goals through a more practical, multilingual, up-to-date, and less intrusive avenue where they can gain insightful knowledge and acquire skills to achieve publication success.

For more information, you can get in touch with us at academy@enago.com