Editing Practice

ORIGINAL ARTICLE

Investigation and analysis of the current situation and learning willingness of science and technology journal editors on generative artificial intelligence

Yuemin Hong*

Medical Information Center, the Third Affiliated Hospital of Sun Yat-sen University, Guangzhou 510630, Guangdong Province, China

ABSTRACT

Background: This study aims to investigate the cognitive status and willingness to learn about generative artificial intelligence (GenAI) of science and technology (sci-tech) journal editors, and to propose corresponding training strategies to enhance their core competitiveness and promote the development of sci-tech journals in the artificial intelligence (AI) era. **Methods:** A questionnaire survey was conducted among editors of Chinese sci-tech journals, focusing on the respondents' understanding and attitudes towards GenAI and its usage boundaries, their willingness to learn GenAI technology, preferences for learning methods, and choices for improving learning outcomes and interest. **Results:** A total of 238 valid questionnaires were collected. The respondents were primarily female editors aged 31-50 with editorial or associate editor titles. Editors, 98.74% of whom had varying degrees of knowledge about GenAI, and 88.66% of whom believed that GenAI would partially replace their work in the future. Only 10.92% of the editors had a clear understanding of the usage boundaries of GenAI in academic publishing, while 84.87% considered it essential to learn GenAI technology. In terms of learning needs for GenAI technology, the most requested knowledge content was methods, techniques, examples of use and policy regulations, followed by technical theories and historical development processes. The preferred learning formats were on-site centralized training, online expert lectures, watching educational videos, regular training at work units, self-study and practice, and live exchanges with experts. The methods to enhance learning effectiveness and interest, in order of priority, include: establishing a learning communication group for constant updates, applying for relevant research projects, formulating incentive policies by the workplace, forming study groups with colleagues or like-minded peers at work, participating in competitions and awards organized by educational training institutions, and writing academic papers. **Conclusion:** Sci-tech journal editors have a high level of awareness regarding GenAI but lack knowledge of policy guidelines. They have an urgent need to learn GenAI technology, and it is essential to adopt diversified and practical learning strategies along with personalized learning formats to improve learning efficiency. Encouraging the editorial and publishing societies to lead professional and standardized GenAI training programs, and increasing incentives from relevant organizations and institutions to boost editors' enthusiasm for learning, while emphasizing international training is crucial.

Key words: generative artificial intelligence, science and technology journal, editor, cognitive status, willingness to learn

INTRODUCTION

Building world-class science and technology (sci-tech) journals is one of the key strategies for China to become a sci-tech powerhouse. Editorial talent is the most critical factor in the development of these journals.

***Corresponding Author:**
Yuemin Hong, Medical Information Center, the Third Affiliated Hospital of Sun Yat-sen University, NO. 621 Tianhe Road, Guangzhou 510630, Guangdong Province, China. Email: hymfly@aliyun.com; https://orcid.org/0000-0003-3455-7790
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Cultivating editors with high-level comprehensive abilities is crucial for creating world-class sci-tech journals. The issue of talent cultivation has always been a top priority in journal development, and versatile editors proficient in multiple new technologies have become in high demand in the field of sci-tech journals. In recent years, the rise of generative artificial intelligence (GenAI) has brought vibrant vitality to various industries. GenAI has close ties with sci-tech journals,[1] and its "explosive" growth has had a profound impact on the industry. Huang *et al.*[2] point out that the integration of GenAI with scientific journal publishing is inevitable and will involve the workflow of journals at stages such as topic planning, manuscript review, publication, dissemination, and knowledge service provision. Chen and Shen[3] believe that GenAI is driving the reshaping of the scientific journal industry, and it has been widely applied in areas like topic planning, peer review, editing and publishing, and academic communication, significantly enhancing the industry's level of intelligence. Tan and Du[4] explore the application effects of GenAI in Chinese sci-tech journal editing and proofreading, and find that GenAI can effectively check grammatical and logical errors in both Chinese and English texts, helping editors polish manuscript texts. Chen[5] believes that GenAI can help accelerate academic publication cycles, improve manuscript quality, reduce editorial workload, and enhance reader experience as well as expand journal influence. The author of this article finds that despite GenAI's limitations, it still has advantages in topic planning when certain operational skills are mastered.[6] Given the increasingly widespread use of GenAI in sci-tech journal work, some scholars have analyzed how editors can enhance their core competitiveness in the AI era. Huang[7] believes that editors should proactively embrace change and continuously learn new technologies and knowledge in the AI era. Liao[8] suggests that editors should strive to build a symbiotic relationship with new technologies, improve their overall capabilities and self-identity, and gain control over technology to lead the healthy development of publishing. Undoubtedly, single-skilled labor will be replaced by interdisciplinary AI professionals with comprehensive abilities in the future. Only those who can master AI tools, possess innovative thinking and creativity will secure a place in the workplace. Entering 2025, the deep application of AI has become a focal point and has compelled the editors of sci-tech journals to consider how to coexist with intelligent technologies in a better way.[9] Enhancing GenAI application skills has become a critical measure for this professional group to strengthen their core competitiveness in the AI era. It is also a key focus for continuing education courses in editing and publishing. There is currently no research specifically addressing the detailed needs of sci-tech journal editors in learning GenAI technology, so this study investigates the cognitive status and willingness to learn GenAI among sci-tech journal editors, in order to provide targeted references to relevant organizations, and promote the comprehensive improvement of GenAI application skills among sci-tech journal editors, to ensure they have a promising future in the AI era and can fully leverage their potential to drive the continuous development of journals in response to the national strategy for building world-class sci-tech journals.

METHODS

Sci-tech journal editors were investigated by questionnaire.

Questionnaire design

Referring to the policy guidelines involving AI such as *Interim Measures for the Management of GenAI Services*, *New Generation Artificial Intelligence (AI) Development Plan*, *National Comprehensive Standardization System Construction Guide for the Artificial Intelligence Industry (2024 Edition)*, *Methods for Identifying AI-Generated Content (AIGC)* and *AIGC Usage Boundary Guidelines in Academic Publishing 2.0*, the researchers developed a survey questionnaire titled *Survey on the Current Understanding and Learning Intentions of GenAI among Sci-Tech Journal Editors*. The main content of the questionnaire included: (1) basic information about the respondents (age, gender, title, primary responsibilities, *etc.*); (2) cognition level of GenAI and the boundaries of usage, attitude towards the question of whether GenAI will replace editing work; (3) willingness to learn GenAI technology and desired knowledge (including technical principles, introductions to AI tools, practical steps, operational skills, GenAI application standards, *etc.*); (4) preferences for learning styles; (5) methods for enhancing learning effectiveness and interest; (6) other ideas or suggestions for learning GenAI technology.

Investigation method

A pre-survey questionnaire was distributed to 14 publishing professionals (7 with senior titles and 7 with intermediate titles) to test the rationality, representativeness, accuracy, and feasibility of the questionnaire. Based on feedback from the pre-survey, the questionnaire content was further refined and finalized into its official version: (1) the questions were simplified to reduce the complexity of the questionnaire design. The question "Will you use generative AI in the future?" was deleted because it was repetitive with the question "Do you think it is necessary to learn new technologies of generative AI?"; the question "Have you used generative AI before? What's the name of it?" was deleted because it was repetitive with the question "How much do you know about generative AI?" (2) the logical order of the questions has been adjusted. The question "Do you think generative AI will replace the work of editors in the future?" has been moved in front of the question "do you clearly define the boundaries of the use of generative AI in academic publishing?" (3) the

question "Your educational background" was deleted, because 2 respondents thought that it might make the respondents feel uncomfortable and give up answering the questions, and it was not strongly related to the research topic either.

The official version took about 4 min to complete, including multiple-choice questions and fill-in-the-blank questions, with logical transitions and mandatory fields. Each device can only be used once for answering. The survey was officially conducted by distributing the questionnaire to sci-tech journal editors *via* WeChat and text messages. Responses submitted between November 2024 and February 2025 were collected and organized. The data from valid responses were statistically analyzed to provide recommendations. The questionnaire was distributed on the Wenjuanxing platform, and the data was processed by this platform and presented as frequency and percentage.

RESULTS AND ANALYSIS

The survey respondents' information

A total of 243 questionnaires were collected, and 238 questionnaires were valid; the percentage of valid questionnaires was 97.90%. The validity of the recovered questionnaires was determined according to the validity of filling in, the logic and consistency of the answers. The respondents were mainly female sci-tech journal editors aged 31 to 50 with the title of editor or associate editor (Table 1).

Table 1: Information of 238 sci-tech journal editors

Item		*n* (%)
Age	⩽ 30 years old	10 (4.20)
	31-40 years old	99 (41.60)
	41-50 years old	93 (39.08)
	> 50 years old	36 (15.13)
Sex	Man	66 (27.73)
	Woman	172 (72.27)
Professional ranks and titles	Assistant editor	16 (6.72)
	Editor	95 (39.92)
	Associate senior editor	83 (34.87)
	Senior editor	26 (10.92)
	Others (researchers, professors, engineers, *etc.*)	18 (7.56)
Responsible for major work	Scientific editing	109 (45.80)
	New media editor	15 (6.30)
	Scientific editing and new media editing	54 (22.69)
	Journal leadership management	49 (20.59)
	Other (proofreading, administration, journal related work, *etc.*)	11 (4.62)

sci-tech, science and technology.

The survey respondents' cognition level of GenAI and the boundaries of usage, and their attitude towards the question of whether GenAI will replace editing work. Sci-tech journal editors, 98.74% of whom mastered some information about GenAI, while only 1.26% had no understanding at all (Figure 1). A small number of editors (1.68%) believed that GenAI would completely replace their work in the future, 88.66% thought that GenAI would partially replace their work in the future, and 9.66% believed that GenAI would not replace their work in the future. Most editors (77.73%) had some understanding but were not very clear about the boundaries of GenAI usage in academic publishing, 11.34% lacked complete understanding of the boundaries, and only 10.92% of them had a clear and definitive understanding of the boundaries. These results reflected that most editors of scientific journals had recognized the future trend of GenAI integrating into work. Most of them believed GenAI couldn't take responsibility and could only serve as an auxiliary convenient tool. For creative tasks, GenAI couldn't replace humans, and it needed to be properly regulated. In terms of the boundaries of using GenAI, most editors still lacked a deep understanding and didn't know how to apply it appropriately. The subjects of this survey, though limited to sci-tech journal editors, to some extent, reflected the current environment for GenAI application in China. Despite GenAI's well-known status, public understanding generally remains at a basic level, focusing primarily on its convenience and diversity. The GenAI application policies and specifications are not paid enough attention. The lack of relevant knowledge reflects that many users aren't aware of the importance of the GenAI policies or regulations, so the GenAI-related risk issues cannot be ignored.

The survey respondents' learning willingness of GenAI

Most editors (84.87%) believed it is essential to learn GenAI technology; 15.10% thought it was optional; three editors provided specific reasons: Busy work; unclear future prospects for GenAI in the publishing field; GenAI can be operated with the help of assistant software. No editor found learning GenAI technologies to be entirely unnecessary. These results reflected a high sensitivity among sci-tech journal editors towards GenAI technology. They were most willing to keep up with the times and embrace new technologies. The editors in this survey were primarily aged between 31 and 50, holding positions such as editor or associate editor. In editorial careers, the editors in this age group and with mid-to-senior titles are often the backbone of high-level development in journals. They generally have strong self-awareness and enthusiasm for work, making them more proactive in learning new technologies and enhancing personal capabilities.

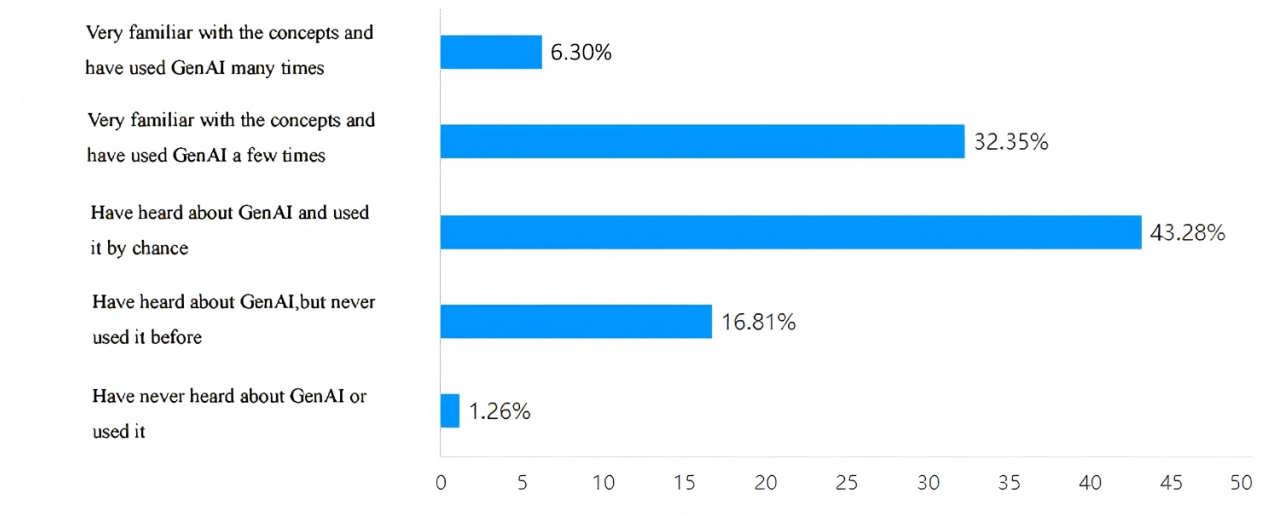

Figure 1. The 238 sci-tech journal editors' cognition level of GenAI. sci-tech, science and technology; GenAI, generative artificial intelligence.

Regarding the learning requirements of GenAI technology, the knowledge sci-tech journal editors mostly needed to learn include application methods, application techniques, application examples and policy regulations, followed by technical theories and history of development (Figure 2). The *Regulations on Continuing Education for Professional and Technical Personnel* published by the Ministry of Human Resources and Social Security of China states that "continuing education should focus on capacity building, emphasizing relevance, practicality, and foresight". The purpose of professional and technical personnel learning new technologies is not only to enhance personal competitiveness but also, most importantly, to effectively apply these skills in their work, improving efficiency, reducing production costs, enhancing product quality, and promoting innovation. In this survey, the GenAI learning needs of sci-tech journal editors were particularly focused on practical aspects.

The survey respondents' preferred learning styles

On-site concentrated training, online expert lectures and educational videos watching were the learning styles of GenAI technology chosen by most sci-tech journal editors. Regular training at work units, self-study and personal practice, as well as live exchanges with experts, are also popular choices for many editors. Additionally, some editors emphasized the importance of "practical operation" and mentioned the style of "practical training camps" (Figure 3). The on-site concentrated training method emphasizes interaction between instructors and trainees, which helps in the rapid and efficient dissemination of knowledge, deepens trainees' understanding and application, and encourages them to promptly identify and solve problems to directly enhance their practical skills. Online expert lectures break geographical and time constraints, offering greater flexibility and convenience compared to on-site training, and are especially suitable for those who cannot participate on site. The flexible educational video style is also favored, as sci-tech journal editors are generally busy with work. For those who want to improve their skills but lack the time, flexible training can arrange learning schedules according to personal circumstances, free from the limitations of fixed course times, thus avoiding missed learning opportunities due to work or family matters. Moreover, videos can usually be reviewed and replayed, aiding in the consolidation of knowledge. Some editors mentioned cost savings in this survey; online lectures and video-based training are relatively inexpensive, allowing for educational gains while saving costs. Regular training provided by the workplace can also be an effective method, and it can not only enhance employees' skill levels and team collaboration but also boost their satisfaction and loyalty. However, it is crucial to avoid making this process superficial and to ensure reasonable scheduling while minimizing disruption to work. Moreover, self-study and self-practice, driven by the editors' initiative, can be a flexible and efficient way for those with strong learning needs and proactive attitudes to improve themselves. Significantly, with the advent of the era of live streaming for all, live streaming has become an important form of education and training. Its advantages include real-time participation, timely interaction, broad coverage, and unrestricted time or location. Therefore, live-streaming-based training has also gained attention from editors.

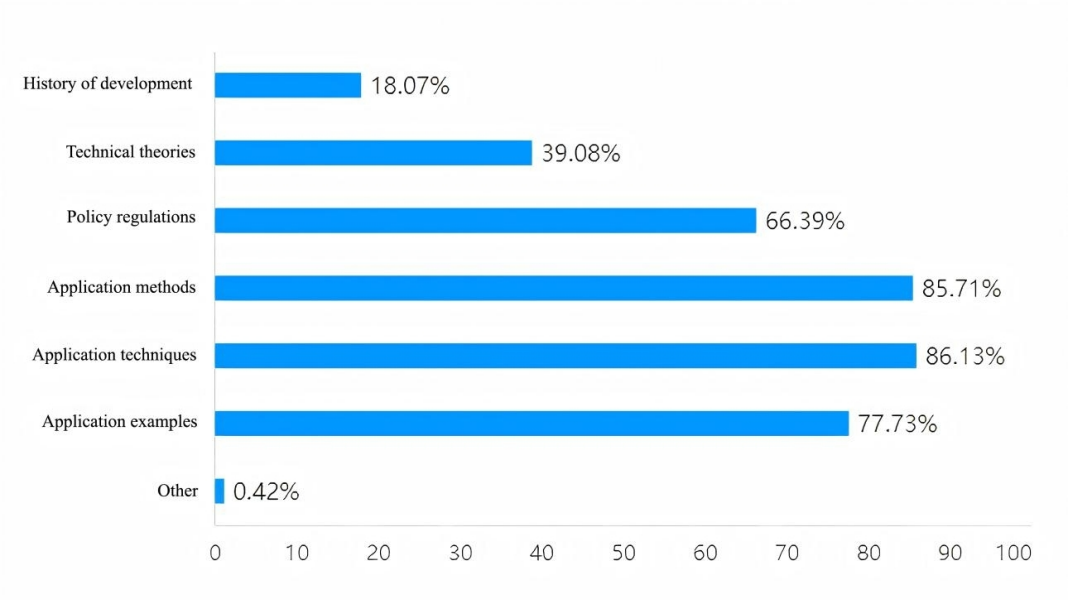

Figure 2. The 238 sci-tech journal editors' learning requirements of GenAI technology. sci-tech,science and technology; GenAI, generative artificial intelligence.

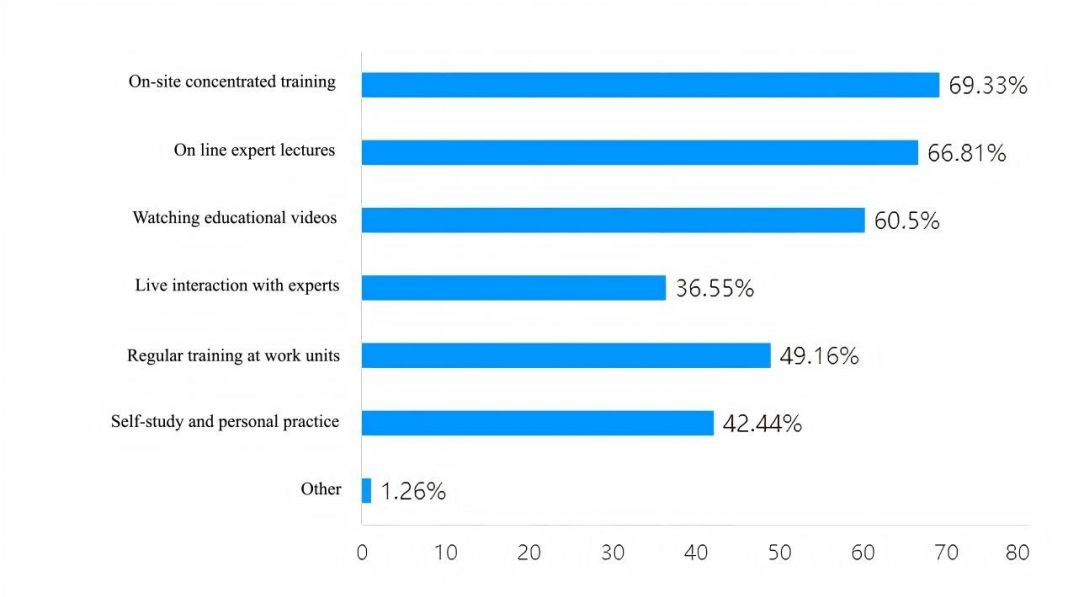

Figure 3. The 238 sci-tech journal editors' preferred learning styles of GenAI technology. sci-tech, science and technology; GenAI, generative artificial intelligence.

The methods of improving learning effectiveness and interest

All sci-tech journal editors believed that the methods to improve learning effectiveness and interest, in order of importance, are as follows: establishing a learning communication group for constant updates, applying for relevant research projects, workplaces formulate related incentive policies, forming study teams with colleagues at the workplace, educational training institutions organize competitions and awards, and writing academic papers (Figure 4). The development of mobile Internet technology has made communication faster and more convenient; WeChat and QQ platforms have become important tools for work and study, as WeChat groups and QQ groups can gather enthusiasts with common interests. Establishing GenAI learning communication groups can significantly promote timely problem discussion, sharing of application experiences, and maintenance of learning enthusiasm. This is a powerful driving force for enhancing learning motivation, which is

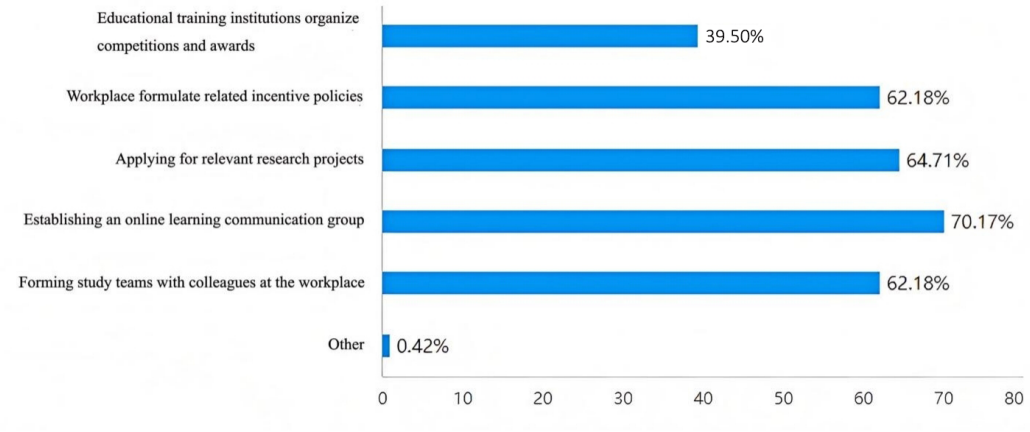

Figure 4. The methods of improving learning effectiveness and interest 238 sci-tech journal editors suggested. sci-tech, science and technology.

also the method most editors consider effective in improving learning outcomes and interest. Team-based learning is beneficial for mutual supervision and support, while project funding and workplace support are common substantive incentive measures.

Other views and suggestions on learning GenAI technology

Thirty-one sci-tech journal editors proposed some ideas and suggestions for learning GenAI technology. These views and suggestions covered promptly initiating standardized training, increasing learning and communication, providing more practical cases, integrating theory with practice, visiting leading institutions for observation, clarifying policy issues, emphasizing human initiative, avoiding following trends, aligning with international standards, developing AI specifically for editors, and focusing on cybersecurity technology. These views and suggestions reflected the earnest expectations and innovative thinking of sci-tech journal editors regarding the learning of GenAI technology, as well as their clear emphasis on human leadership and their desire to keep pace with international AI technological advancements to enhance their capabilities.

THOUGHTS AND SUGGESTIONS

This study, based on understanding the cognition level of GenAI among sci-tech journal editors, conducted a detailed survey into their willingness to learn GenAI technology and collected their views and suggestions on learning. Most editors (84.87%) believed it is essential to learn GenAI technology; they believed that GenAI can enhance work efficiency and using it is a trend in the development of the AI era. Most of them (88.66%) thought that GenAI would partially replace their work in the future; they believed that the main jobs that AI can replace include proofreading, typesetting, repetitive work, English translation, reference review, image review and other non-creative repetitive tasks. These results reflect the new understanding of the personal professional value of editors as they shift from the executive level to the decision-making level in the AI era, as well as the possible structural changes that may occur in the editing industry against the backdrop of AI technological iteration.

After analyzing and reflecting on the survey results, the following strategies are proposed for reference to sci-tech journal editors and relevant training institutions. These strategies aim to help sci-tech journal editors adapt to the development trends of the AI era through professional training and self-study, increase the number of versatile and all-rounded editorial talents, better promote the high-quality development of sci-tech journals, and serve as a strong support for China's major strategic goals of building world-class journals, strengthening the country in sci-tech, and achieving high-level self-reliance and strength in sci-tech.

Rely on national policies and industry guidelines for correct guidance

Since ChatGPT developed by OpenAI became popular globally at the end of 2022, GenAI has deeply penetrated various fields. In 2024, "AI+" was first included in the Chinese government work report, elevating AI's strategic status at the national level to a new dimension. Entering 2025, the deep application of GenAI has become a focal point for researchers. Using GenAI to assist in proofreading, writing new media news, and generating images for public accounts has been effectively implemented in some sci-tech journals, allowing editors to fully appreciate the powerful functions and convenience of GenAI. Indeed, GenAI's ability to instantly generate text and images offers

significant advantages in improving work efficiency and is gradually transforming and reshaping the academic publishing industry landscape. However, issues such as copyright infringement, privacy exposure, data misuse, and lack of integrity also come with these advancements. How to correctly use GenAI should be well understood by industry professionals. Especially when sci-tech journals need to maintain research integrity and prevent academic misconduct,[10] they must exercise greater caution when using GenAI. The popularization of national policies and industry guidelines related to GenAI needs to be comprehensively strengthened. In this survey, most sci-tech journal editors had a positive attitude toward GenAI and recognized the need to build a healthy co-ecosystem of human-intelligent collaboration.[8] But there is still a lack of attention to the specifications for using GenAI. Those who lack awareness of the boundaries may unknowingly misuse GenAI, leading to non-compliance, unethical behavior, and even more severe negative consequences.[11–13] Conveying national policies, regulations, and guidelines related to AI to sci-tech journal editors is fundamental for learning GenAI technology. It provides a necessary framework for AI applications and helps guide the identification and assessment of potential risks, pointing out the right direction for learning and application. Moreover, as AI penetrates interdisciplinary research collaborations, relevant policy guidelines also facilitate appropriate and effective cooperation across different disciplines and fields. In this survey, over half of the editors mentioned the need to learn about GenAI policy norms; they have recognized the importance of policies and regulations in applying GenAI. This learning content should be a regular part of AI training for sci-tech journal editors, ensuring that they can use GenAI legally and compliantly.

Use diversified and practical learning strategies to expand knowledge

AI is a product of human design, lacking the unique social and historical characteristics and subjective initiative of humans. This means that AI cannot replace humans in the competition with human intelligence; it can only serve as an auxiliary tool for humans. In the iterative development of GenAI, people have gradually realized the importance of initiative and leadership. Although GenAI cannot replace humans, its computational speed, accuracy, and precision far exceed those of human intelligence. Therefore, sci-tech journal editors need to fully grasp their core knowledge to better leverage their autonomy in managing GenAI and apply it flexibly to practical problems. This survey shows that sci-tech journal editors have diverse needs for learning GenAI knowledge, and practical training has attracted the attention of some editors. Considering the detailed needs for learning content identified in this survey, it is recommended to adopt diversified and practical learning strategies to comprehensively enhance editors' ability to use GenAI. Firstly, delve into the history of GenAI development and foundational theories such as machine learning, algorithms, and model rules. Continuously follow industry trends and academic papers on the latest technologies to understand the development trends of GenAI, and maintain the relevance of knowledge. Secondly, emphasize the combination of theory and practice; practice is an effective means for sci-tech journal editors to convert theoretical knowledge into practical operational skills, explore GenAI functions, and improve work efficiency. Practical training should closely revolve around editorial and publishing operations, which can be implemented in various scenarios such as text generation, image processing, and video creation. Through these hands-on challenges, editors can learn how to adapt GenAI technology to different application contexts. Thirdly, case-based learning helps cultivate critical thinking and enhance problem-solving skills. Editors can deepen their understanding of GenAI and reinforce knowledge points by referencing solutions from specific cases, drawing on successful examples to better master implementation techniques and continuously improve operational details. They can also learn from failed cases to identify lessons and summarize key considerations. Additionally, during this survey, some editors suggested visiting leading companies for observation and learning. These companies typically possess advanced technical equipment and innovative development philosophies, allowing editors to gain deep insights into the latest industry trends and technological advancements in GenAI. This can inspire innovative thinking when using GenAI, injecting new momentum into journal development. Moreover, leading companies often have unique operational models, enabling editors to gain a deeper understanding of the core value of GenAI through on-site visits and more thoroughly consider how to integrate it into journal work.

Personalized learning styles improve learning efficiency

The style of learning is also a crucial factor affecting learning efficiency. In this survey, the majority chose traditional centralized training or online courses, followed by those who preferred watching educational videos at their own pace and self-study or practice, with many believing that GenAI technology could be optional. Sci-tech journal editors mentioned the reason for their busy schedules when learning GenAI technology. When considering learning GenAI technology, editors need to take into account their own circumstances, leading to a diverse range of learning methods. A monotonous and outdated training format has been a significant issue in past editorial and

publishing training programs.[14] To enhance the effectiveness of learning and training, besides enriching the content, personalized learning formats tailored to individual editors' needs are also essential considerations. Personalized learning styles align with personal preferences, allowing learners to absorb and understand knowledge in the most suitable way; personalized learning schedules help optimize time management, balancing work and study within limited time; personalized learning progress can adjust the pace and difficulty based on different levels of knowledge, avoiding frustration or boredom caused by overly difficult or easy content, thus maintaining optimal learning conditions; personalized learning goals meet the specific job requirements of different editors and positions, and aligning these goals with work tasks can boost learners' intrinsic motivation and practical application skills. In conclusion, when resources are comprehensively evaluated, providing personalized services to trainees by training institutions can effectively enhance training efficiency. Besides adopting conventional training methods, it is also advisable to consider styles that are not limited by time, location, or equipment. This includes offering personalized learning systems or platforms to trainees, providing them with immediate learning feedback, helping them adjust their learning strategies in a timely manner, and improving their satisfaction with learning, thereby enhancing learning efficiency.

Industry associations organize professional teachers and training teams to ensure the effectiveness of learning

Currently, a nationwide AI learning craze is on the rise, with various AI-related training programs sprouting up like mushrooms after rain. The professionalism of teaching teams varies widely, making it difficult for non-AI professionals to distinguish them in the mixed market. This calls for reliable institutions to launch professional training programs to maximize benefits for learners. Among these, the role of industry associations is crucial.[15] As academic social organizations, professional associations of scientific journals should fully leverage their guiding functions by organizing specialized training institutions to conduct continuing education and training, helping editors enhance their GenAI application skills. Conducting continuing education has always been a fundamental responsibility of industry associations, playing a significant role in assisting professionals in mastering new theories, knowledge, and technologies.[16] The interdisciplinary application of GenAI in sci-tech journals requires joint guidance from both AI experts and editorial publishing professionals to ensure that the training content best meets the development needs of sci-tech journals and aligns closely with the career development needs of editors. Associations gather outstanding academic and professional talents within the field, including many interdisciplinary experts in AI and publishing. By leveraging their strong academic background and information advantages, associations can form specialized training teams that can enhance the effectiveness of training, facilitate the mastery of the latest theoretical knowledge and technologies, and closely align with actual work conditions, achieving efficient integration between GenAI and practical work.

Relevant units and institutions should strengthen guidance to increase incentives

This survey shows that methods to enhance learning effectiveness and interest, besides the more favored approaches such as establishing study communication groups and proactive team learning among colleagues, also include project applications, institutional incentives, and organizational awards. Project applications are a form of personal academic research accumulation. During the application process, researchers can systematically review their academic development, preferences, and pursuits, while also tracking the forefront and hotspots in research, thereby enhancing sensitivity to academic trends. This helps explore and deepen research directions further. Additionally, with financial support from projects, researchers can improve the efficiency and quality of their work, providing more valuable references and insights for the development of their fields. Moreover, during the process of completing project papers, relevant knowledge points can be deeply consolidated and mastered. Therefore, it is recommended that relevant research institutions, societies, and associations appropriately increase the number of GenAI-related topics when organizing fund application processes, encouraging editors to learn about related knowledge and explore suitable GenAI research directions for themselves, thus enhancing their overall capabilities in both applying for projects and completing research. The incentive policies of the workplace often effectively promote talent cultivation and development. These can be implemented through training, bonuses, promotions, and recognition. For instance, such policies can include providing financial support for cultivating GenAI application talents, offering bonus rewards to employees who achieve departmental innovation through GenAI, or opening a green channel for promotions for outstanding employees. Such incentives, which relate to career development and enhance job satisfaction, often attract significant attention from employees. They not only boost enthusiasm but also create a positive learning and competitive environment, contributing to the cultural construction of the organization. In recent years, the forms of cultivating editorial and publishing talents have become increasingly diverse. Various competitions have gained enthusiastic

responses for enhancing editors' comprehensive abilities and stimulating their passion for learning.[17–19] When organizing such competitions, relevant institutions can consider including GenAI application skills as one of the projects, designing GenAI competition content that balances professionalism and practicality. By attracting editors through high-impact co-organization and adopting a rigorous yet lively competition format, these efforts can ignite their intrinsic motivation to learn GenAI.

Expand the international perspective for learning and training

Some scholars evaluating that China is catching up with the United States in the GenAI field, especially after the emergence of the outstanding DeepSeek, the domestic GenAI technology level has attracted international attention.[20–25] This issue involves the maturity of GenAI technology, high-quality data support, potential application value assessment, and successful case studies. To secure a favorable position in the international GenAI market, China needs to accelerate the maturation of domestic GenAI technology, actively invest resources in improving data collection, storage, and processing capabilities, focus on talent cultivation, enhance professional training, and establish interdisciplinary teams as key strategies. In the development of scientific journals, an international perspective has always been emphasized. Grasping the direction and research hotspots of international GenAI,[26–29] learning the latest knowledge and concepts, and viewing and solving problems from an international perspective can better promote personal development and the internationalization of journals, helping to address diverse challenges in the global environment and participate more effectively in international cooperation projects. It is crucial not to isolate oneself when learning cutting-edge knowledge; it is recommended that relevant training institutions integrate international resources and use various online and offline methods to attract international talent in the GenAI field for professional instruction, broadening the international perspective of sci-tech journal editors and preparing them to meet global challenges.

CONCLUSION

A thousand-year cause hinges on talent; in the course of human social development, talent is a crucial driving force for societal progress and national prosperity. President Xi Jinping has repeatedly emphasized the "strategy of making the country strong through talent".[30] The *Opinion on Deepening Reform to Cultivate World-Class Sci-tech Journals of China* states that "various forms should be adopted to strengthen editorial team building, create conditions to attract high-level international editors and business talents, and enhance the core competitiveness of publishing and dissemination".[31] In the era of strong AI, how to cultivate AI-savvy editors who can meet future demands is vital for advancing the strategy of building world-class sci-tech journals. At the beginning of this technological revolution sparked by GenAI, the sci-tech journal community was once plunged into panic due to potential risks. After the peak period, the application of GenAI entered a rational phase, with enhancing capabilities and deepening applications becoming key focuses for researchers. This survey shows that the current understanding of GenAI among Chinese sci-tech journal editors aligns with the trends of the times. Editors widely recognize the auxiliary tool characteristics of GenAI and its importance for the future development of journals. Learning GenAI technology has become an urgent need for them. Guiding the use of GenAI according to national policies and industry guidelines, and implementing diversified, high-level, and comprehensive training programs tailored to sci-tech journal editors' detailed needs in learning GenAI technology, will help shape the core competitiveness of Chinese sci-tech journals and lay a solid foundation of talent for the country's innovation-driven development. This study has certain limitations: it didn't investigate the category and language of the journals; it didn't investigate whether the editorial office has established any formal policies or guidelines related to the use of generative AI; and due to constraints in manpower, time, and funding, detailed face-to-face interviews with the survey subjects were not conducted, nor were investigations into relevant training institutions and instructors carried out. These aspects will be further implemented and improved in future research, thereby providing a more precise insight into needs. By pooling suggestions from multiple parties, we aim to keep pace with the development of AI and continuously enhance the relevance and effectiveness of GenAI training strategies for sci-tech journal editors.

DECLARATIONS

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None.

Author contributions

Hong YM: Conceptualization, Writing—Original draft, Writing—Review and Editing. The author has read and approved the final version of the manuscript.

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Ethical approval

The survey did not collect any human biological data,did not involve sensitive data or high-risk areas. It does not fall under the definition of life science and medical research involving human beings as stipulated in the "Measures for the Ethical Review of Life Science and Medical Research Involving Human Beings". The questionnaire was conducted anonymously, no personally identifiable information is included in the written descriptions of the findings,ensuring the full protection of participants' privacy.

Informed consent

This study involved a questionnaire survey, and all participants clearly understood the purpose and method of this survey from the instructions of the questionnaire-before filling out the questionnaire, only those who agreed participated in the survey. Participation was voluntary.

Conflict of interest

The author has no conflicts of interest to declare.

Use of large language models, AI and machine learning tools

None declared.

Data availability statement

Data used to support the findings of this study are available from the corresponding author.

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