Application of Network Technology in Sci-tech Journal Editing and Publishing Process

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Abstract. In the new era, the channel that people obtain scientific information has undergone major changes. The traditional working mode of editors of sci-tech journals can not meet the developing needs of the new situation. To improve the efficiency of sci-tech journals editing and publishing, shorten the publishing period and improve the quality of journals, we have done the research on application of network technology in a series of publishing process including selecting topic, soliciting contribution, reviewing, proofreading, editing, publishing and distributing by adopting the method of combining theory with practice. The results showed that network technology could greatly improve the efficiency of journal editing and publishing, reduce the burden of editorial work, shorten the publishing period and improve the quality of journals, which indicated that network technology could change the traditional pattern of sci-tech journals editing and publication, realizing digitalizing and modernization of sci-tech journals editing and publishing and promoting the rapid, accurate and effective spread of scientific and technological achievements.

Introduction

With the development and popularization of computer and network technology, the editorial and publishing pattern of sci-tech journals also has changed a lot. Traditional editorial and publishing pattern can not meet the needs of development in the new situation and period, which requires the editing and publishing pattern be reformed. Therefore, we conducted research on network technology application in sci-tech journals editing and publishing process and obtained good effect. Practice has proved that every step of sci-tech journals editing and publishing process can be done on the Internet. The network technology, an important mean of sci-tech journals editorial work in the new period, can greatly improve the efficiency of journal editing and publishing, reduce the burden of editorial work, shorten the publishing period, enhance the timeliness of information, improve the quality of journals, accelerate the spread of scientific and technological achievements, and promote the sci-tech journals international.

Selecting topics through network

First, websites and platforms of sci-tech journals editing and publishing need to be established and scientific and technical journal paper gathering and editorial system can be used[1][2][3][4]. Editors can know the developing direction of each subject and profession, acquire the newest scientific trend, track academic research fronts of universities or the research institutes and widen the channel of topic selection. The latest information can be acquired conveniently, timely, accurately and infinitely through online research [5]. The editors can quickly conclude, make a judgment, determine the topic, and judge whether the identified topic is novel and unique through the network to retrieve topic selection. By using network to select topics, editors can get a lot of information they need without going out, which can increase the efficiency the editing work and reduce its the burden.

Soliciting contributions through network

After confirmation of topic, editors can contact with authors for acquisition at any time, or collect manuscripts by sending e-mails. To make the authors' contribution targeted and initiative, the editors can introduce the principle, features, retrieval details, effects of the journal both at home and abroad as well as offer instructions for authors through the network before contributions, etc. Online soliciting contributions will be beneficial to enlarge the author group and attract more wonderful manuscripts. Before contribution, authors can inquire submission details by e-mail (or QQ), then surf university journal website, register articles through the gathering and editorial system and submit online [6]. Submission by e-mail is also allowed if there is no collecting and editorial system available.

Reviewing papers through network

When receiving manuscripts, editors need to give the paper preliminary review and check the content using academic article detecting system. If the contributions detected are unqualified or their content repetition rate is over stipulated ratio for the journal, they will be rejected to prevent the occurrence of academic misconduct from the source. If the contributions inspected are qualified and pass preliminary examination will be sent to outside review. sci-tech journals are highly professional, which determines the sci-tech journals should have a stable and efficient reviewing expert team. With the rapid development of science and technology, subject branch is becoming more and more. Therefore, updating and supplementing reviewing expert team are also needed.

Various experts research direction, degree, title, address, E-mail, etc. of universities and research institutes of related disciplines can be found using the Internet. Journal Editors can establish reviewing expert database using the information, update and supplement reviewing experts. Reviewing experts of sci-tech journals can log in the website, review papers through the scientific and technical journal paper gathering and editorial system online, upload the reviewing opinions, and can also review by e-mail. Online review, breaking the barriers of time and space, makes it possible for the editors to get in touch with the authors and reviewing experts quickly, and feedback to the author of manuscript processing information and provide related documents. Online review not only shortens the review period greatly, but avoids the loss of manuscripts and delay of reviewing without sending paper copy, and save the manpower and postage [7][8].

Editing, typesetting and proofreading through network

The development of network technology has made revolutionary changes of editing pattern in sci-tech journals. The traditional editing mean is gradually replaced by network technology. Using the Internet for editing, typesetting, proofreading, can not only improve the work efficiency greatly, reduce the error rate and editing work burden, but can reduce the cost of publication. It is new modern editing work mode. For example, in the editing process, when the manuscript appears unclear original figure, missing experimental data, quantity and unit problems, nonstandard use of bibliographic and references, the editor can inform the authors by e-mail, QQ or science and technology journal gathering and editing system. The authors can timely modify the papers according to these specific issues, and resubmit the revised manuscripts to the editors through the manuscript editorial system or e-mail.

Meanwhile, using the computer typesetting system (such as the founder typesetting software) for typesetting can greatly improve the layout efficiency and make the format design more scientific, beautiful and generous. In addition, in the editing and publishing process, proofreading is an important part to ensure the quality of the journal [9]. The speed can directly affect whether the journal can be normally published on time. There are lack of personnel and no professional proofreaders in some journal editorial office, so the editors have to carry general proofreading work, namely redaction integration. Editors edit manuscripts, and also bear the heavy proofreading task.

The application of online redacting software not only greatly reduces the editors' burden of proofreading, but also increases the speed and improves the accuracy of proofreading [10].

Publishing and distributing through network

The development of network technology has made diverse publishing forms of sci-tech journals. Online publishing and electronic periodicals are developing rapidly, which brings serious challenges to traditional paper publication. In order to spread excellent academic achievements in a timely and effective manner, raise the value of approval, spread and utilization of the academic achievements, the papers, after outside review, finalized version and careful editing processing, can be firstly published on CNKI(China National Knowledge Infrastructure) in a digital version, namely the first digital publishing. This process enables the authors' research results confirmed in a timely manner and can also shorten the publishing time, improve the transmission speed, and attract many authors and readers.

Retrieving through network

An important index to evaluate the academic level of sci-tech journals is the journal collection situation by authoritative retrieval system and database both at home and abroad. Network can be used to detect national and international famous retrieval systems and databases, making it easy to find the state of journal retrieved and referenced. Sci-tech journals editors should often browse some domestic and foreign relevant professional journals website according to the characteristics of the journals [11], follow other journals' publishing situation and developing trends, learn from their experience of running the journal, and find out gap and make complement.

Propagandizing through network

Propagandizing sci-tech journals by using network can expand the scope of propaganda, which can help readers and the authors both at home and abroad to know sci-tech journals, and make a globalization of the authors and the readers. Propagandizing university Journals on the internet can realize two-way and multiway communication, expand and enrich the propaganda content [12], and shorten the distance between journals, readers, authors and reviewing experts. It will benefit to mobilize the potential readers and authors, enlarge subscribers, increase the circulation and expand the academic influence of sci-tech journals, improving popularity of the journals. It is a quick, intuitive and economical way to promote the journals through the web [13].

Conclusion

In short, the network is a product of the development of modern information technology and a hub of global information resources. Network transmission has broken the limit of time and space, and is characterized by instant, efficiency, convenience and variety. It makes the sci-tech journals publishing form diversified, editing means modernized, and readers, authors and reviewing experts globalized. [14][15]. But, the network technology brings the opportunity to speed up development of sci-tech journals, also proposes a serious challenge. The more fierce competition among the sci-tech journals has put forward new and higher request for editors [16][17][18]. Therefore, sci-tech journals editors, according to the reality of the journal of service, should adapt the needs of development, make full use of the platforms provided by network, make efforts to study computer theories and operating technologies, master network technology skillfully, learn modern editing skills, improve the efficiency and overall quality of journals editing and publication, realize the digitization, networking and modernization of journals editing and publishing, and promote sci-tech journals internationally.

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