Inquiries on Optimizing Publicity for Graduate Enrollment by Means of Informatization

Guo Zhengyu, Wang Meng, Ma Liang, and Yan Yongshuai

Abstract—The development of universities and the cultivation of high-level talents have put forward a higher requirement for postgraduate education. It is of great importance for the advancement in graduate education to promote the quality of the source of students. Therefore, it is high time that the publicity for graduate enrollment should be optimized. To solve the problems underlined in the process of the publicity, such as, the increasing need for personalization among students, the little interest in traditional ways of publicity, and the low accuracy of the contents in conventional publicity, constantly perfecting working system as well as innovating operating methods has become the key measure to improve actual working efficiency in the information age. This paper is based on the case of graduate enrollment publicity in UESTC, into which the idea of informatization is introduced with the tools of information used, making an inquiry on accurate strategies for ways, targets, contents, etc, in the process of publicity, while offering a train of thought and proper proposals. The thesis mentioned in this paper can be expected to give convictive reference when carrying out the work of publicity for graduate enrollment in the future.

Index Terms—Publicity for graduate enrollment, informatization, inquiry, thinking.

I. INTRODUCTION

In 2015, *the Overall Plan for Developing World-Class Universities and Disciplines (State-Issued No. 64 [2015])* was officially issued by the State Council of China, which pointed out a definite direction for the Double First-Class construction among universities in China [1]. The primary mission of the Double First-Class construction includes establishing first-class teaching staff, cultivating first-class innovative talents, improving the level of scientific research, inheriting and innovating excellent culture, and promoting the application of research results. [2] Judged from the cultivation of talents, the Double First-Class construction is distinctively characterized by its high-level graduate education to which China pays high attention. It was noted on the National Conference on Graduate Education that, in order to grasp the positioning of graduate education in the new era and to follow the regularity of high-level talent cultivation, great importance should be attached to the goal of cultivating young people of this new age who are in duty bound to undertake the major task of national rejuvenation. [3] Graduate education has become a great event brought to the forefront of governmental and public attention. The source of graduate students is the bedstone of the cultivation. Hence

improving the quality of student source is the vital task in the process of enrollment. High quality students have become a "scarce resource" for which is scrambled by every university. Naturally then, the publicity of graduate enrollment is drawing increasingly high attention from the general colleges and universities. In today's information age, the publicity of graduate enrollment is advancing with the times and adapting to the change so that message delivery in the process of enrollment has transformed from a passive form to a possitive, wide-ranged, and rapid one. Information means has been widely used to enhance the effect of publicity.

II. THE CURRENT SITUATION OF THE APPLICATION OF INFORMATION MEANS IN THE PUBLICITY OF GRADUATE ENROLLMENT

Since the restoration of graduate education in 1978, universities and colleges has activated the task of publicizing graduate enrollment by means of "information bombing" at specific time nodes using traditional media such as television, broadcast, newspaper, poster, combined with on-site information sessions. Such kind of practice used to get very good effect. However, as we step into the information age, an increasing number of information measures have been taken in the publicity of graduate enrollment, including posting admission notifications on enrollment information networks or WeChat official accounts, starting summer camps on the theme of campus experience, idea exchanging and interviews, which contributes to the improvement of student source on a certain extent but makes barely satisfactory effect because of the limited group of targets. Shortcomings can be seen in all the above measures: Firstly, the method of publicizing is rudimentary. The candidates are mainly national-examination-qualified or with exemption of the state examination. Today, the number of postgraduate candidates is increasing year by year, with a population of 4.57 million in 2022. The number of students who have come through the state examination is able to cover the corresponding need of enrollment of universities so that students with exemption of the state examination become the favourite of universities. Most of the above measures are operated in an extensive coverage, which is beneficial for increasing the number of applicants. However, the attraction to students with exemption of the state examination is limited. Thus such measures can barely improve the actual quality of student source. Secondly, there is a lack of communication and interaction. Traditional methods mainly focus on enabling the target students to receive messages that universities intend to deliver. Most of these messages can be found on the websites of universities or other networks. In addition, that's

not what students desire to explore. The majority of target students have already learned the overall information about their preferred universities, and they are more inclined to learn about the information about the disciplines and majors they have applied for, as well as the teaching staff, academic researches and career prospects, which cannot be delivered to the target students through traditional publicity methods. Only when the demand of target students is accurately met, with their doubts eliminated, through content delivery assisted by communication and interaction can the publicity achieve a better result. Thirdly, the channels of publicity are relatively limited. As is known to us all, the information age is also the age of omnimedia. Students are able to obtain information through various channels. The features of the students decide the media and platforms they would like to follow. Only if the publicity of graduate enrollment marches into the popular platforms, taking the dominant position and distinguish itself from other information can it have a satisfying effect [4]. Therefore, correcting the deficiencies effectively and establishing a rounded system of publicity for graduate enrollment through the application of information means will improve the actual effect of the publicity operation and upgrade the quality of candidate source.

III. THE ADVANTAGE OF INFORMATION MEANS

Information means can effectively break the physical limits of distance, widen the range of publicity for graduate enrollment, and improve its influence. Traditional methods of the publicity generally includes conducting information sessions or advisory boards in cities from which students originate. The preparation of these activities requires a long period, suitable sites, certain groups of target students, etc, which may affect the results of publicity. The application of information means can effectively prevent such deficiencies. The limit of physical distance can be eliminated, and the range of publicity can be broadened. [5] In the meantime, the video playback function is available, helping to draw more attention and make the publicity more influential [6].

The information means contribute to the construction of interactive platforms, improving the actual effect of the publicity. Traditional methods of publicity focus on delivering basic information about the university and showing the academic strength to target groups of candidate students, which is equivalent to giving out brochures of the university, with a nonreversing information delivery and a passive receiving mode. With the application of information means, the one-way mode can be changed. Once the interactive platforms are established, with online live streaming, public salons, instant ask-and-answer activities, the questions and demands of students can be acknowledged immediately by the recruiting units. With these efforts done, the actual effect of the publicity is surely to be promoted.

First-hand data can be gathered by information means, promoting the upgrade of the publicity. Considerable amount of first-hand data can be gathered with the application of information means in the publicity for graduate enrollment. Conducive measures like registering the preference and intention of candidates, analyzing graduate admission data, and sorting out the problems during the interaction help to clarify the concerns or distribution areas of target students, thus enabling universities to optimize the contents and arrangements of the publicity and accelerating the upgrade of the publicity [7].

IV. MAKING BEST USE OF INFORMATION MEANS TO ESTABLISH A DISTINCTIVE SYSTEM OF PUBLICITY FOR GRADUATE ENROLLMENT

The publicity for graduate enrollment has drawn increasingly high attention from universities. It is a key subject to conduct the publicity based on the school's own characteristics. The authors made this inquiry based on the case in UESTC, attempting to explore the methods, contents and targets of the publicity and to establish a distinctive system.

A. Establishing Platforms for Publicity by Information Means

In order to serve students in a better way, upgrades and revisions of graduate recruitment network have been conducted in recent years. New version of the website shows a concise and clear layout. Compared with the old version, the new homepage contains modules like publicity for graduate enrollment and intelligent Q&As with the consultant robot, Xiao Zhi, which helps candidates to learn about relative information of UESTC and encourages students to apply for our school.With the new media platforms like our WeChat official account, Graduate Enrollment of UESTC operated, candidates are now able to check out all kinds of recruiting information through the menu in this account. The adhesiveness of users is effectively increased by the process of "communitization" in the WeChat official account, which plays an important role in the publicity for graduate enrollment [8]. Online remote video system has been built, activities like online advertising and online remote interviews implemented. Among all these methods, online remote interviews have realized zero-cost and non-contact online communication and reexaminations between tutors and examinees [9]. The online system, popular among teaching staff and students, has been functioning stably for two years. It not only protects the life, health and safety of teachers and students but also ensures that the interviews are fair and scientific. Student candidates are now enjoying a 7/24 first-rate service, which can be attributed to the expanding consulting service channels -- the establishment of mess-texting platforms for short messages and e-mails, and the formation of instant communication platforms like specific publicity groups on Tecent QQ and WeChat.

B. Precise Targeting and Innovation

Publicizing methods to the operation of graduate enrollment is like "bones" to humans, and contents "muscles". Only if bones grow well can muscles be strengthened. [10] In the same way, publicizing methods are crucial to the operation of graduate enrollment. A good method for publicizing yields twice the result with half the effort. The

target audience of the publicity for graduate enrollment consist of senior undergraduates. UESTC has profoundly analyzed the features of this group of audience and current special ciucumstances, basing itself on accurate positioning of target audience, precise designing for publicity contents, and careful selecting of publicity methods to implement the publicity for graduate enrollment by Online-Merge-Offline information means. As for candidates from our school, UESTC established a series of salons, entitled Inquiry-Based Learning in UESTC, about career planning and guiding. Before starting the salons, questionnaires had been distributed by information means to make full understand of the concerns and doubts from students. The university invited teachers from certain disciplines, upperclass postgraduates, and working staff from Graduate Admissions Office to the salons to introduce the target discipline, to answer questions around domestic postgraduate study, and to encourage target students to take a step further in UESTC. Furthermore, a live-streaming session on the theme of "College Open Day" was given to high-quality candidates from all parts of the country. Administrators, experts, upperclass postgraduate students from secondary enrollment units were present in the broadcasting room to introduce basic information about the departments and admissions policy, as well as to answer questions from candidates online. The session was broadcasted on various platforms such as Bilibili (a famous domestic bullet-screen site), Weibo, and Feishu (an online office platform). Aiming at candidates with an exemption from or a register for the state examination, UESTC organized a series of "Cloud" summer camps (summer camps held online) for high-quality students from all over the country. The opening ceremonies, seminars, campus and laboratory trips, selection of excellent members, etc, are all conducted on "Cloud", which offers a platform to high-intention students to know about the school, to make a deep understanding of the school's disciplinary strength, researcher teams, and teaching staff, and to enhance the acknowledgement of the school's history and culture. This move is conducive to help students determine to make further study in UESTC.

C. Carefully Arranging Speaking Staff to Attract High-Quality Target Students

As the generation after the 1990s or 2000s accounts for the majority of higher education accepters, the features of personalization and diversification is becoming increasingly non-negligible. In the operation of publicity for graduate enrollment, it is crucial to select suitable speaking staff in the sessions. Top teachers and academic masters have an extremely strong appeal and influence on students, while the interaction with upperclass postgraduates, peer communication and experience sharing are also effective. In terms of publicity contents, UESTC follows the idea of "accumulating supportive strength in the overall process and matching information resources in an all-around way", underlining the academic guidance for students and the cultivation of high-level talents on the ground of a basic introduction of the school, disciplinary strength and researcher teams. With sessions given, UESTC is aimed at helping students to cope with academic problems and

confusions in daily life, guiding and inspiring students to go for further study. The speaking staff on sessions share their own experience of studying and developing in UESTC, explaining the motto "To Seek Facts and Truth, To Be Noble and Ambitious", the unique spirit and culture of UESTC. Only when students feel touched by this culture and are willing to stay can the actual effect of publicity for graduate enrollment be achieved.

With the exploration and the utilization of information means in recent years, the covering range and the power of influence of the publicity for graduate enrollment of UESTC has been constantly improving. In 2021, seventeen salons entitled Inquiry-Based Learning in UESTC, aiming at candidates from this school, were organized, with an attendance of six thousand students. On the live-streaming session named "College Open Day" aiming at high-quality students from all parts of the country and involving 22 recruiting units in UESTC, over 100 speaking guests including administrators from relative departments, principals of various disciplines, representatives from researcher teams and excellent postgraduate students gave live speeches to an audience of 150 thousand students. The summer camp on "Cloud" attracted over 10 thousand applicants from nearly 400 universities, with over 6000 high-quality undergraduates from nearly 100 universities eventually becoming the full members of the summer camp.

V. THINKING AND PROPOSALS PROVIDED FOR INFORMATIZATION CONSTRUCTION IN PUBLICITY FOR GRADUATE ENROLLMENT

The publicity for graduate enrollment is a key procedure in the operation of graduate enrollment. With the features of diversification and personalization of students in future higher education, combined with the high attention paid by parents, it is an inevitable trend that the publicity for graduate enrollment should face great challenges and meet higher standards. This paper draws a conclusion on the thoughts and practice in constructing the system of the publicity for graduate enrollment in UESTC, combining the work with new methods and technologies in current development of informatization. UESTC will integrate new media, convergence media, big data and artificial intelligence into the publicity process in order to make better achievements. With the wide use of new technologies, such as 5G network, artificial intelligence and big data, a niche-targeting publicity work is made possible. Firstly, WeChat, Weibo, short videos, live streamings have become increasingly popular among the public in current society, and they have been a critical sphere and channel of advertising and publicizing. The target audience of the publicity for graduate enrollment has changed from the students to wider groups including parents. Therefore, making better use of new media is on agenda. The utilization of new media makes it possible to publicize in varied ways, aiming at different groups of users, while interacting more effectively with the audience and answering questions more efficiently. [11] Secondly, in the era of new media and convergence media, an integration of networks, short videos and instant messaging platforms is needed, which allows universities not only to ensure the

normativeness and seriousness of the publicity but to take diversified strategies and to organize different contents for varied platforms and audience as well. With the support of new media technology, various combination of a same group of materials can be realized through different manifestation, such as pictures, articles, and videos. On the ground of disparate platforms, the audience are differentiated from each other and the publicity effect is varied, leading to optimized results [12]. Last but not least, adding to the accumulation of data in previous student recruiting work, the consequent fruit of using new media and convergence media is mass data. Now to achieve accurate publicity for graduate enrollment, unconventional thoughts and perspectives should go into the proposal and application of big data, and the prediction and guidance function must be exploited by means of big-data analysis and artificial intelligence.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Guo Zhengyu, Wang Meng, Yan Yongshuai conducted the research; Ma Liang, Yan Yongshuai analyzed the data; Guo Zhengyu, Wang Meng, Yan Yongshuai wrote the paper; all authors had approved the final version.

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