

E-government Direction of Personnel Characteristics and Training Strategies

Yan Changshun, Shao Yong^{*}

Faculty of Information Technology, Beijing University of Technology, Beijing, China

Email address:

yuewuxing@bjut.edu.cn (Yan Changshun), shaoyong@bjut.edu.cn (Shao Yong)

^{*}Corresponding author

To cite this article:

Yan Changshun, Shao Yong. E-government Direction of Personnel Characteristics and Training Strategies. *Higher Education Research*. Vol. 7, No. 5, 2022, pp. 174-178. doi: 10.11648/j.her.20220705.16

Received: September 15, 2022; **Accepted:** October 18, 2022; **Published:** October 20, 2022

Abstract: E-government is a new thing, and there is no ready experience to follow. Due to the influence of many factors such as the original values, system, economic conditions, and information level, its development is like any other new thing, and countries around the world inevitably face many problems in the process of building E-government. The shortage of e-government talents is one of the main problems restricting economic development. To this end, many schools have opened e-government industry classes for government personnel. Recently, many schools have found that the original training mode is too single and there are many risks. In order to ensure the quality of teaching, training schools should adjust their enrollment and training strategies in time. Based on the detailed analysis of the current situation and characteristics of e-government talents in China, this paper puts forward some reform strategies. First of all, we use the method of questionnaire to preliminarily understand the types of students and their needs for knowledge; Secondly, the course system in the early stage is discussed through discussion; Then, adjust the curriculum in time according to the problems found in the practice teaching process; Finally, the curriculum system dynamically adapts to the changes of e-government talents. I hope my work can provide some reference for e-government personnel training workers.

Keywords: E-government, Characteristics of Talents, Training Strategy

1. Introduction

With the continuous progress of information technology and the deepening application of information technology in government departments, "e-government for development" has become a global trend and has been listed as a national important matter [1]. In the construction of the "five information superhighways" advocated by the world, e-government ranks first. Since Gore first proposed to "realize government informatization and reorganize the US government" in his "national competitiveness review" in 1993, e-government has been launched in various countries. Many countries have implemented a series of basic projects, generally accepted the government concept of "customer-centered", and vigorously developed e-government, with remarkable results. E-government is developing from the primary stage to the advanced stage. However, due to differences in informatization, infrastructure, human

resources, technical capabilities and other aspects, the starting time of implementing e-government is different in each country, and the development level of global e-government is unbalanced [2]. Generally speaking, the E-government of developed countries started earlier than that of developing countries, and the development level of E-government of developed countries is also much higher than that of developing countries [3].

From the perspective of promoting the development of E-government in various countries, although their backgrounds are different, strengthening national competitiveness, integrating government resources, re positioning the government, that is, providing high-quality services to citizens, are the common goals of building e-government in these countries [4]. Summarize the experience of developed countries in the development of e-government, mainly including: formulating their own visions and strategies for the development of e-government; Determine the focus and priority of promoting e-government;

Put forward relevant policies and even adopt new laws and regulations; Formulate a unified plan, and set up corresponding institutions to supervise and manage the implementation of the plan, so as to standardize the healthy development of e-government; Make corresponding organizational arrangements and even build relevant leading institutions; Train high-quality talents for the development of e-government [5]. These measures not only involve the application of ICT by the government, but also involve the transformation and integration of government processes, and even the improvement of the environment required for the development of e-government [6].

However, e-government is a new thing, and there is no ready-made experience to follow [7]. Due to the influence of many factors such as the original values, system, economic conditions, information level and so on, its development, like any other new thing, inevitably faces many problems in the process of building e-government in all countries in the world [8]. It is highlighted in the following aspects: the digital divide; Security issues; Administrative system restriction; Resistance within the government, that is, civil servants themselves; Protection of personal data; Protection of national culture and national sovereignty; Lack of innovative talents [9]. Among them, the lack of innovative talents has become the main bottleneck in the process of promoting e-government, which must be broken through as soon as possible [10, 11].

E-government is a digital form of government reform practice, which serves the development strategy of the country and the nation. Its construction is a complex system engineering and a process of sustainable development [12, 13]. It is a top priority to do a good job in the management of innovative talents in e-government. It is an important symbol to measure a country, city and community's promotion of e-government development, and also an important milestone decision point to carry out rational E-government projects [14, 15].

While paying close attention to the global trend of foreign e-government development and talent management mode, this paper deeply analyzes the current situation of China's e-government talents, and hopes to combine the national conditions to formulate an e-government planning scheme that conforms to China's own characteristics and cultivate innovative talents suitable for China's characteristics.

2. Current Situation of E-government Talents in China

E-government talents are e-information knowledge and modern government management knowledge. According to its knowledge composition and application characteristics, e-government talents can be divided into three types: one type is e-government technical talents, that is, technical personnel responsible for the construction, operation and maintenance of e-government systems in government institutions; Its characteristics are proficient in e-government technology, mainly computer and network technology, communication technology, software technology and information acquisition

and processing technology, and can implement e-government management with the most effective technical means. The other is e-government management talents, that is, decision-makers and senior managers responsible for the construction of e-government information systems in government institutions; In addition to having sufficient knowledge and ability to apply e-government technology, they should also be proficient in modern government management activities, be good at seeking administrative laws in the information age, and optimize decision-making and management processes by using information sharing and integration. The third category is e-government practical talents, that is, all staff at all levels who use e-government information systems in government institutions and relevant personnel of government service objects. Their characteristics are that they do not need to have a deep theoretical knowledge of computer systems, but they need to understand the knowledge and concepts of e-government, the knowledge and use of computers, the use of office software, and the use of various e-government application software. In essence, such personnel belong to the executors and recipients of administrative activities. There are many people in this category. Under the trend of e-government, every government worker and relevant personnel receiving government services must master certain e-government knowledge to safeguard their rights to participate in politics and interact. From the talent types of e-government, it can be seen that e-government talents are not simply administrative management professionals and computer professionals in the administrative system, but individuals who need to effectively integrate government management knowledge, computer application knowledge and information management knowledge. They are complex and application-oriented talents. This poses a higher challenge to the government's talent requirements.

China's e-government has entered a period of all-round development. The achievements made in government affairs are gratifying, but at the same time, many problems have been exposed in e-government legislation, unified planning and unified technical standards, security and other aspects. The most important one is the shortage of high-quality talents in e-government. According to the results of the "national informatization and e-government talent demand survey" organized by the Information Work Office of the State Council, there is a rare shortage of talents who know both information technology and management in all provinces and cities, and 2.3% basically meet the demand, with a huge gap of 97.7%, which is the fundamental obstacle to the promotion of E-government in China. Thus, it can be seen that there is a serious shortage of compound talents who are both familiar with it technology and government management business and can adapt to the development of e-government, which is far from meeting the actual needs of the all-round development of E-government in China, and seriously restricts the further improvement of the government's administrative ability. The specific manifestations of the defects are: it technicians and government managers are only proficient in their own professional knowledge fields, and there is always an

insurmountable knowledge gap between them in dealing with practical problems, resulting in difficulties in communication and dialogue, and some cooperation is even out of reach. The main reason is that the country lacks long-term practical needs in the training and management of e-government talents.

3. Characteristics of E-government Talents in China

As a supplier of knowledge, we should first clarify the category of learning objects. Only when the category is determined can we communicate effectively with people and take targeted measures. Through various channels, we have analyzed the E-government service personnel, and found that the service population of e-government mainly includes three categories: leading cadres at all levels and civil servants; Information technology personnel. The specific characteristics and problems of various personnel are as follows:

3.1. Characteristics of Leading Cadres

Whether informatization and e-government can develop healthily and orderly depends on leading cadres at all levels. At present, the overall quality of leading cadres at all levels is relatively high, and they have initially acquired the basic information ability. However, in general, the level of understanding of e-government and the ability of information technology application of leading cadres can not meet the requirements of e-government development. Some leading cadres still need to improve their understanding of e-government. In view of the age characteristics of leading cadres and the nature of their work, it is mainly emphasized that the concept and understanding of e-government should reach a certain level, so as to actively promote the informatization work of departments. However, at present, some leading cadres at bureau level still have unclear understanding of the role of E-government in the whole government management and government innovation, have not formed the idea of using computers to improve office efficiency, and have not realized the practical significance of E-government in the transformation of government processes. There is a certain gap between leading cadres' understanding of social information by means of informatization and their actual needs. At the same time, the informatization level of leading cadres has a great relationship with knowledge structure, age structure, unit nature, etc. the leaders of commissions, offices and bureaus with high informatization level have a relatively full understanding of e-government. The computer operation ability of leading cadres at the bureau level still needs to be improved. From the perspective of practical operation, middle-level leading cadres actually use more computers and have basically mastered basic computer operation skills. However, most bureau level leading cadres still have many blind spots, and the proportion of bureau level leading cadres who can use computers to handle official business is not large. Therefore, the subjective initiative of

leading cadres at the bureau level in computer application needs to be strengthened, and an environment for use needs to be created to promote their basic skills.

3.2. Characteristics of Civil Servants

Civil servants are the supporting and operating layers of e-government. Their information ability has a direct impact on the application of e-government and the level of government services. The overall quality of civil servants is good, but there is still a gap between their information ability and the current needs of e-government and information development. There is still a certain gap in the understanding of e-government. The gap mainly lies in that the vast majority of civil servants have not received systematic training in the basic knowledge of informatization and e-government, and they lack a deep understanding and understanding of e-government. In order to enable civil servants to play an active role in the work transformation, it is necessary to enhance civil servants' understanding of e-government. The office capacity in the network environment needs to be improved. At present, e-government has developed from stand-alone office to department collaborative office. It is necessary to strengthen the training of office skills in the network environment, and conduct comprehensive and systematic application knowledge training on OA systems, interactive online office systems, and auxiliary decision-making systems commonly used in e-government, so that civil servants can master the use of business information systems and improve their office ability and service level in the network environment. At the same time, we should strengthen the training of civil servants' in-depth application ability of network resources and improve their information management and knowledge management ability in accordance with job requirements.

3.3. Characteristics of Information Workers

In order to improve the information ability of personnel, most units have carried out various forms of education and training activities. Moreover, the informatization team of the organs is relatively young on the whole. Most of the personnel have informatization related professional backgrounds and have high overall information ability. With the rapid development of information technology and its wider application range, the government has increased its efforts to promote the informatization work, which puts forward higher requirements for the knowledge structure and knowledge updating process of the informatization professional working team; Therefore, it is necessary to strengthen the relevant training and speed up the update of its information technology knowledge according to the post needs of the information-based work team of the organ, so as to adapt to the pace of information-based development. At present, the informatization talent team in many places is a young team, mainly composed of fresh graduates, who are usually more professional, but lack practical experience, and often have the problem of only knowing technology but not government affairs. Moreover, the proportion of graduate

students in this team is not high, and there is a lack of professional talents in the research of E-government theory, methods and tools, information security management talents, information engineering project management talents and senior composite management talents. At the same time, the number and quality of information technology professionals are difficult to meet the needs of work, reflecting the demand trend of large quantity and wide range, especially the lack of compound talents who are familiar with government processes and proficient in information technology, which is also one of the main reasons for the failure of many e-government projects.

4. Strategies of Talents Training in E-government

After years of summing up, China has several sets of formed training knowledge systems. For example, according to the original teaching concept of focusing on me, we can easily complete the training of e-government talents, but the effect of this way of training can not meet the actual needs of current development. In order to do a good job in the training of e-government talents, we need to break the original framework system, Re tailor the training program for students according to their needs. And a series of measures such as the analysis of learning objects, the actual investigation of needs, the questionnaire survey, and the reform while teaching are taken to ensure the training effect.

4.1. Method of Questionnaire

First of all, the questionnaire is adopted. The needs are obtained by issuing questionnaires to all students, and the curriculum system is preliminarily designed according to the scientific analysis of the survey results.

4.2. Discussion

Secondly, discussion should be adopted. Before the beginning of enrollment, the school and external e-government experts should be convened for many times to discuss the training and curriculum setting of the E-government class. From the actual needs of students, the goal orientation, curriculum system and supporting teachers of this group of students should be clarified, and several preliminary plans have been formed; Then, we had an in-depth discussion with the leaders of the committees, offices and bureaus of the enrolled students and some students who applied for the examination to further revise the scheme.

4.3. Teaching While Changing

In the past, the curriculum system developed at the beginning of the curriculum could not be modified, but in fact, it should be flexible. Because we found in the specific teaching process that the students are consistent with the curriculum knowledge points previously reached by the school, but there are certain deviations in the focus of

knowledge, we should communicate with the teaching teacher in time to change the focus of knowledge points, so as to meet the actual needs of students. In addition, in addition to theoretical teaching and practical teaching, a high-level forum should be added to the curriculum system. In the actual operation, if we find that there is a certain gap between the content taught by the experts we hired in advance and the actual needs of students, we should adjust it in time. The best way is to establish an expert database first, and then communicate the content of each expert with students in advance, and finally let students decide which expert to hire for the next course.

Of course, there are still many measures, such as equipping them with part-time head teachers to understand the learning dynamics of students in time, and organizing students to go to excellent committees and offices for practical observation and learning.

5. Conclusion

Although China has called for the training and management of e-government talents since the beginning of the implementation of e-government, due to the lack of construction experience and the limited time, there are still various problems in the training and management process: first, there is a trend of "emphasizing hardware investment and ignoring software development". The software here is not only the software development related to e-government, but also the development of e-government talents. In recent years, the computer configuration rate and network coverage rate of government organs in China have increased significantly, but there has been no qualitative improvement in e-government talents. Even a considerable number of government personnel do not understand computers, and they still act in the old way in actual office work. Second, the distribution of educational institutions undertaking e-government talent training is unbalanced. Third, the professional orientation and curriculum related to E-government in Colleges and universities are unreasonable, lack of science and foresight, and the knowledge of students trained is not wide enough, and their adaptability and application ability are not strong. At present, there are many conceptual ambiguities in the teaching of e-government. People think that e-government is e-government plus government, and naturally think that e-government is the combination of computer and administrative management. Therefore, in terms of teaching mode, they think that computer courses and administrative management courses account for half of the country. In addition, the curriculum and textbook system is not mature, and the phenomenon of cross repetition between courses is serious. The new practical e-government course is still under further development. Fourth, there are many image projects, blindly pursuing the form, and the concept of the specific procedure of the talent training goal and direction is vague. Therefore, abandoning the idea of focusing on myself in the past and thinking from the same angle with e-government workers in different fields will make our professional talent

training more solid, confident and clear, and only in this way can we cultivate e-government professional talents suitable for China's national conditions.

Acknowledgements

The paper would like to thank the support of the project "Research on New Generation Information Detection and Testing Technology and Methods" (40025001201838), as well as the authors of the references and relevant researchers, whose research has given me important reference and help, which has provided a good reference for the completion of my paper.

References

- [1] Chen Chaodong. Research on the elements, essence and characteristics of e-government service [J]. Public Administration & Law, 2022 (4): 25-34.
- [2] Liang Hua, Xu Yanan. Research on the construction of e-government service platform based on blockchain [J]. Changjiang Information & Communications, 2022, 35 (6): 163-165.
- [3] Chen Yumei. The role and implementation strategy of e-government in the construction of service-oriented government [J]. Undertaking & Investment, 2022, 33 (1): 208-210.
- [4] Huang Caijuan. Research on e-government service quality management [J]. Management & Technology of SME, 2020 (21): 19-20.
- [5] Liu Jianwen, Cui Da. Research on the construction and development of e-government in china [J]. Theory Research, 2020 (4): 39-40.
- [6] Hu Jiahui. Research on the human resource management of government service under the background of e-government [J]. Caixun, 2020 (14): 30.
- [7] Chen Xiangqin. Design and implementation of digital fujian e-government project management system [J]. Fujian Computer, 2022, 38 (5): 111-113.
- [8] Wang Yingying, Peng Guangcan, Su Fan. Research on the Construction of "E-government" First class Curriculum under the Background of New Liberal Arts Construction [J]. jiaoyu jiaoxue luntan, 2022 (28): 85-88.
- [9] Yan Li. Research on e-government from the perspective of service-oriented government institutions [J]. China CIO News, 2021 (10): 111-113.
- [10] Li Changjiang. Analysis on the Application of Electronic Information Security Technology in E-government [J]. Technology Wind, 2021 (7): 65-66.
- [11] Qi Shenghua. Application of big data technology in e-government [J]. Management & Technology of SME, 2020 (11): 184-185.
- [12] Zhang Jie, Liu Fanglu. Practice of teaching reform of e-government [J]. Office Automation, 2020, 25 (19): 47-49.
- [13] Wei Xiaohui. Design and implementation of e-government software system [J]. Kexue yu Xinxihua, 2020 (18): 42, 44.
- [14] Chen Yuanping, Zhou Xiaojun, He Peng. Exploration and practice of e-government localization application [J]. Frontiers of Data & Computing, 2021, 3 (2): 86-92.
- [15] Wang Quan. Research on e-government application based on smart government [J]. Intelligent City, 2021, 7 (16): 5-6.