

Construction and Application of Smart Party Building Platforms in Universities in the Context of Internet+

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Abstract: This article discusses how universities can use digitalization and intelligence technologies in the context of Internet+ to construct smart party building platforms and the application effects of such platforms in university party building work. Firstly, it introduces the impact of Internet+ on party building work in universities. Then, it presents the significance and objectives of constructing smart party building platforms. Next, it elaborates on the overall architecture, functional modules, and technological implementation methods of the platform. Finally, it analyzes the application effects of the platform in various aspects through examples, such as enhancing the interactivity of party member education and learning, enriching the informatization means of daily management, and strengthening the collaboration in organizational activities. The research shows that the application of smart party building platforms provides effective support for party building work in universities and is an important way to innovate and advance party building work.

Keywords: Internet+, university party building, smart party building, platform construction, application effects

1. Introduction

With the widespread application of Internet technology in various fields, "Internet+" has become an important development concept that is reshaping the industrial and organizational forms of modern society. Faced with opportunities and challenges brought by new technologies, party construction must also adapt to the requirements of the times and promote innovation in party building through the concept of "Internet+ party building." The 19th National Congress of the Communist Party of China clearly stated the need to "promote the deep integration of the internet, big data, artificial intelligence, and the real economy." In the context of Internet+, constructing smart party building platforms is an important measure to improve the quality of grassroots party building work and promote the transformation of party building work. Smart party building platforms can achieve informatization and intelligence in party building work, improve party member services and management, and help grassroots organizations play their political core role. This article aims to explore the construction strategies and application effects of smart party building platforms based on an analysis of the impact of Internet+ on party building work, with the goal of providing reference for the innovation of grassroots party building work in the new situation [1].

2. The Impact of Internet+ on University Party Building Work

In the Internet+ era, new technologies such as mobile internet, cloud computing, big data, and artificial intelligence are flourishing in various fields. They are profoundly changing people's production and lifestyle and also have a significant impact on university party building work [2]. On the one hand, Internet+ provides new pathways for party building work. Party member education is shifting from offline to online, and the forms of theoretical learning are becoming more diverse. Organizational activities are conducted through online platforms, reducing constraints of time and space. Grassroots party organizations use big data technology for precise management of party member information. On the other hand, Internet+ also brings new challenges. The diversification of online public opinion makes it more difficult to guide party building in the right direction. Party member education and management need to adapt to the new media environment, and the task of constructing positive online content becomes more demanding. Therefore, universities should actively adapt to the development trends, leverage the advantages of Internet+ technology, promote innovation in party building work, and construct a new pattern of smart party building to achieve the new goals of party construction in the internet era [3].

3. Building A Smart Party Building Platform

3.1 Significance and Objectives of Constructing a Smart Party Building Platform

Internet+ technology provides new ideas and pathways for party building work. Constructing a smart party building platform that integrates mobile internet, big data, artificial intelligence, and other technologies can promote the development of party building work towards intelligence, precision, and personalization [4]. This is of great significance for thoroughly implementing the overall requirements for party building in the new era, promoting the regular transformation of party building work, and achieving the scientific, intelligent, and social development of party building work. The objective of constructing a smart party building platform is to rely on network information technology to integrate resources from all aspects of party building work, forming a unified, open, and dynamic information platform and management platform. This will achieve the informatization and intelligence of grassroots party organizations, providing accurate services such as party member management analysis, education and training, organizational activities, supervision, and assessment. This, in turn, enhances the quality and efficiency of grassroots party building work [5].

3.2 Overall Platform Architecture Design

A smart party building platform can adopt a network architecture of "Internet+ Party Building+ Big Data." It promotes innovation in party building work with an internet-based mindset and information technology, while achieving fine-grained management of party member information with big data technology. The platform consists of three levels: the data layer, platform layer, and application layer. The data layer integrates basic data such as party member information, party dues information, and learning information [6]. The platform layer constructs shared service platforms such as intelligent analysis systems and knowledge base systems. The application layer provides various usage scenarios such as mobile apps,

mini-programs, websites, etc., for different users, including party members and party organizations. This facilitates party building information services and management applications [7]. To improve user learning outcomes and engagement, the platform needs to regularly calculate the objective function:

$$\max = \sum_u E(u) + \lambda \sum_{c,u} \text{Rel}(c, u) \quad (1)$$

Where λ is a parameter balancing the importance of the two objectives, $E(u)$ is the engagement calculated based on user u 's behavior and feedback, and $\text{Rel}(c, u)$ represents the relevance of content c to user u .

3.3 Main Functional Modules of the Platform

The primary functional modules of the smart party building platform include party member management, organizational management, learning and education, daily management, and performance assessment [8], as shown in Table 1 below.

Table 1 Main Functional Modules of the Platform

Module	Function Description
Party Member Management	- Collection and updating of party member information. - Support for party member messaging and communication.
Organizational Management	- Modeling of organizational structure. - Personnel allocation services.
Learning and Education	- Establishment of an online party class network. - Knowledge-based question and answer community.
Daily Management	- Meeting management. - Work planning. - Task assignment.
Performance Assessment	- Regular assessment of party members and party organizations.

These functional modules provide effective support for the entire process of party building work through data sharing and business coordination [9].

3.4 Technical Implementation of the Platform

The platform's technical architecture follows a front-end and back-end separation model. The front-end utilizes technologies such as WeChat mini-programs to achieve compatibility across multiple devices [10]. The back-end is built on the Spring Cloud microservices framework, employing modular and service-oriented concepts to enhance system scalability.

```
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.cloud.client.discovery.EnableDiscoveryClient;
@SpringBootApplication // Marking it as a Spring Boot application
@EnableDiscoveryClient // Enabling service registration and discovery
public class PartyBuildingService {
```

```
public static void main(String[] args) {  
    // Starting the microservice  
    SpringApplication.run(PartyBuildingService.class, args);  
}  
}
```

Big data technology is utilized for the storage and intelligent analysis of party building data. Artificial intelligence technology is integrated into the platform's knowledge base and intelligent recommendations to enhance user interaction experience. Network security protection and access control are crucial components of the entire technical system.

4. Application Effects of the Smart Party Building Platform

4.1 Enhanced Interactivity in Party Member Education

The smart party building platform has significantly transformed party member education. By constructing an online party class education system, the participation rate of party members in online learning has seen a remarkable increase, with data indicating that the participation rate in online learning has surged from the previous 45% to 90%. The platform's intelligent personalized learning content recommendations have received widespread positive feedback, with approximately 80% of party members stating that the learning materials they receive better align with their individual needs. Furthermore, interaction and communication among party members have become more frequent due to the platform, leading to a 70% increase in activity. Notably, since the introduction of the party class testing system, most party members have started actively self-assessing their learning outcomes. This has not only enhanced their motivation to learn but has also allowed the organization to more accurately gauge the theoretical proficiency of party members.

4.2 Enrichment of Daily Management Tools

The smart party building platform has revolutionized daily management through information technology, significantly improving the efficiency of party members and party organizations in handling everyday affairs. Particularly, the application on mobile devices has greatly facilitated the day-to-day tasks of party members and organizations.

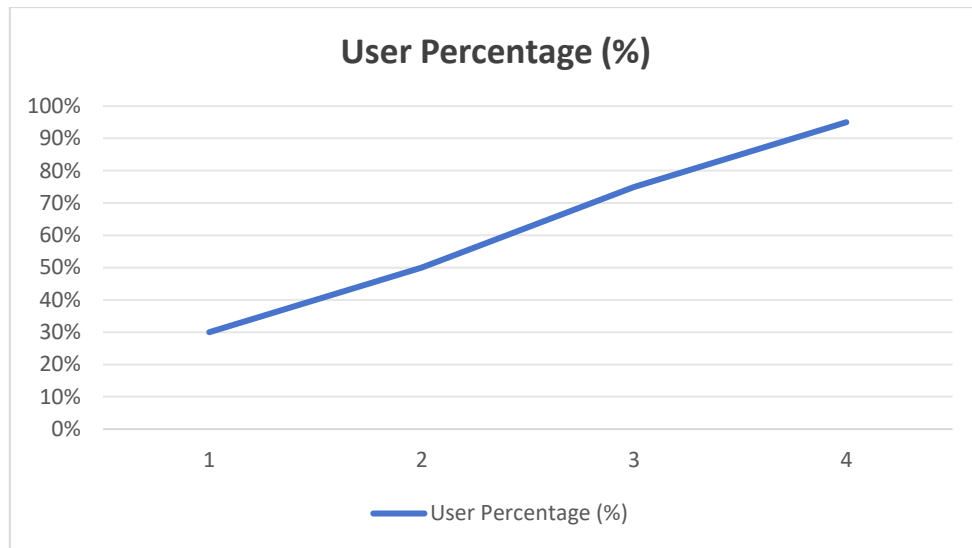


Figure 1 User Ratios

As indicated by the data in Figure 1, the number of users handling transactions through the mobile app has increased from 30% to 95%. Furthermore, the application of big data has enabled organizations to identify work priorities and challenges more precisely, thereby enhancing problem-solving efficiency. Importantly, the introduction of artificial intelligence has significantly reduced the workload of personnel, with automation handling up to 85% of simple and repetitive tasks. This allows employees to invest more effort into more critical tasks.

4.3 Strengthening the Coordination of Organizational Activities

The smart party building platform has successfully eliminated the barriers of time and space in organizational activities, enhancing the connections and collaboration among party members. Through the platform, party groups can organize various activities more flexibly, and the application of data analysis has made activity scheduling more scientifically rational, effectively mobilizing the enthusiasm of party members. It is noteworthy that the platform has not only enriched online organizational activities but also promoted the conduct of offline practical activities, leading to more frequent party member interactions and significantly increased organizational cohesion. The use of big data further optimizes this process, helping organizations better understand the needs of party members and formulate more targeted measures, thereby comprehensively improving the quality and coordination of organizational activities.

5. Conclusion

Internet+ technology has provided opportunities for the development of party building work, and the application of the smart party building platform is an effective way to drive the transformation of grassroots party building work. By constructing the smart party building

platform and integrating cutting-edge technologies such as mobile internet, big data, and artificial intelligence, the efficiency potential in traditional party building work can be unleashed, leading to the intelligence of party building management and services. The application of the smart party building platform fully embodies the concept of "Internet+ party building" and provides data support, organizational support, and technical assurance to grassroots party organizations. The application effects of various functional modules demonstrate that the smart party building platform can promote the precision of party member education, the scientific nature of management, and the enrichment of organizational activities. Looking ahead, the construction of the smart party building platform needs continuous deepening and improvement, enhancing platform intelligence and security, and driving greater innovation in party building work. However, regardless of the future developments, the application of the smart party building platform is an important choice for grassroots party building work to adapt to the trend of the new technological revolution and achieve high-quality development.

Topic Name: Research on the construction of grassroots Party organizations in universities

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