The Integrated Platform of Digital Cultural Heritage in China: a Proposed Model Based on Public's Expectations

Yi Tang[12] , Xiaofei Nie[3] and Jie Xu[1]

[1] School of Information Management, Wuhan University, Wuhan430072, China
[2] Institute for Digital Library, Wuhan University, Wuhan430072, China
[3]Wuhan University School of Health Sciences, Wuhan430071, China

Abstract. This poster attempts to propose an integrated platform of digital cultural heritage in China based on the public's expectations and provide specific suggestions for policy makers. A questionnaire was designed and disseminated through online survey service website. From 6 October to November 2016, a total of 1,076 responses were collected. The data showed that the Chinese users expected a comprehensive, convenient, and unified one-stop online accessible portal to all types of digital cultural heritage from China. Based on user need analysis, an integrated platform model of digital cultural heritage has been proposed. Also the China's digital cultural heritage integration management system has been proposed. In this system, the corporation between the Ministry of Culture and the State Archives Administration of China can be realized.

Keywords: China, Digital Cultural Heritage Integration, Integrated Platform.

1   Introduction

The term of digital cultural heritage (DCH) has emerged with the rapid development of IT. DCH mainly refers to digitized materials from libraries, archives, and museums (LAMs) (Hedegaard, 2004; Zhao and Zhu, 2013). Successful and complete national-scale DCH integration (DCHI) platforms should contain digitized materials from LAMs. World Digital Library, Europeana, Digital Public Library of America are all such platforms, which make full use of modern information technology to satisfy the needs of sharing human culture and information resources (Marcum , 2014).

However, due to   management system problems such as lack of corporation between different government departments, it is very difficult to integrate DCH from LAMs into a unified platform in China (Liu, 2014), a country that has five thousand years of history and rich cultural heritage. In China, the platform which contains the most and diversified types of DCH resources is National Digital Culture Network (NDCN).Itis an online platform of National Cultural Information Resources Sharing Project (NCIRSP), a national-scale project jointly initiated by the Ministry of Finance and the Ministry of Culture of the People's Republic of China (MCPRC) in 2002(Fu, 2015). But the platform is failed to integrate resources from archives mainly because

of management system problem (Luo, 2007; Zheng and Li, 2012). So far there is no national-scale integrated platform which contains DCH resources from LAMs in China. Is there any public demand for such a platform? If so, how to build such a platform?

Some related work has been done by both Chinese and overseas researchers. The most widely discussed research topics are as follows:(1)necessity and value of DCHI;(2)useful technologies;(3)metadata interoperability; (4) existing problems and solutions.The existing research results have undoubtedly promoted the development of the theory and practice in DCHI. But few researches have investigated Chinese public's demands for DCHI nor proposed suggestions on how to build such a platform accordingly.

Our study aims to propose an integrated platform model of DCH by surveying and analyzing Chinese users' demands for DCHI, so as to provide government and policy makers with suggestions.

2   Methodology

The research objectives of this study are twofold: (1) To identify public's expectations and requirements on the utilization of integrated DCH resources; (2) To propose a national-scale platform model according to the public expectations and requirements on DCH service.

Considering the fact that China is an enormously large country with a population exceeding 1.3 billion, an exploratory survey approach was considered to be operable and thus was adopted in order to ensure that the sample is more representative and complete. The online survey platform Questionnaires Star (www.sojump) was employed for disseminating and collecting questionnaires. The invitation was sent in 6 October 2016. By the end of November 2016, there were overall 1,076 responses, and 29 invalid responses were discarded. In the end, 1,047 valid questionnaire responses were included in the survey analysis. The demographic information of the respondents is illustrated in the Table 1.

Table 1 Demographic Statistics of Responders.

Genders	Male (51.29%), female (48.71%)
Age groups	Under 18 (0%), 18-25 (22.25%), 26-45 (71.82%), 46-60 (5.83%), 61 and above (0.1%)
Educational background	High school and below (4.2%), undergraduate degrees (84.24%), postgraduate degrees (11.56%)
Occupations	Students (9.46%), teachers (9.26%), corporate staff (57.59%), agencies, institutions of staff (15.57%), farmers (0.57%), cultural and art workers (1.62%), technology workers (2.77%), others (3.15%)

3 Research Findings

3.1 Necessity for One-stop Access to DCH

Through analysing the questionnaire responds, we find that over 90% respondents agree that building such a platform is "very necessary" or "necessary" when being asked 'Do you think it is necessary to build a one-stop platform providing resources of different cultural heritage institutions, for instance, libraries, museums, archives and other cultural institutions?', As is shown in Table 2. This shows that the Chinese public's demand on such a platform is very high.

Table 2. Necessity for One-stop Access to DCH from LAMs and other Cultural Institutions.

Options	N.	Proportion (%)
a)Very necessary	410	39.16
b)Necessary	538	51.38
c)Not sure	83	7.93
d)Not necessary	13	1.24
e)Not necessary at all	3	0.29
Total	1047	

3.2 Platform Functions needed

Special information organization and retrieval methods are needed for DCHI. DCH should be presented on a platform in accordance with a specific logical structure. The platform needs certain functions to make public access to collections more convenient. But what kind of functions does the public need? According to the survey a result, the most desired functions was one-stop cross-database searching, nearly 90% of respondents said this was "very necessary" or "necessary". Other desired functions include browsing categories, online browsing, exhibition, interaction, intelligent recommendation.

4 Discussion and Conclusion

According to the survey results, there is a great need in one-stop access to DCH from LAMs and other cultural institutions.However, the need from public has not been satisfied in China at current stage. Therefore, based on the questionnaire survey and the analysis of current situation in China, we proposed a digital cultural heritage integrated platform, as Fig. 1 shows.
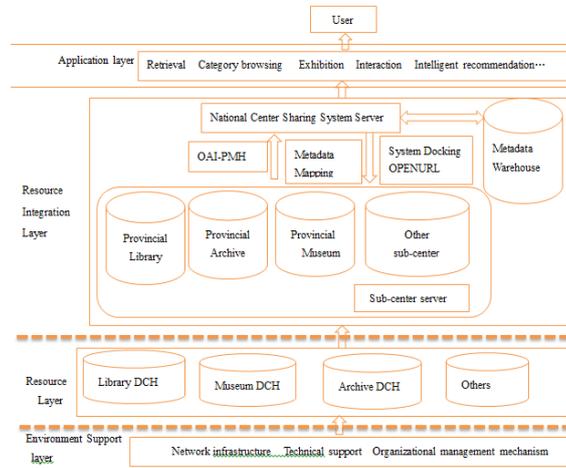
Fig. 1. The Integrated Platform Model of Digital Cultural Heritage in China.

In order to build a DCH platform that integrates resources from LAMs as is shown in Fig. 1, the collaboration between MCPRC and the State Archives Administration of the People's Republic of China (SAAPRC) is required. So as to promote the cooperation, a national-level digital cultural heritage resources construction and service leading group (NDCHRCSLG) should be set up. But it is not enough, provincial-level and city-level digital cultural heritage resources construction and service leading group (DCHRCSLG) also should be set up, which could take the responsibility for China's DCH resources integration project in the level of province and city, as is shown in Figure 2.
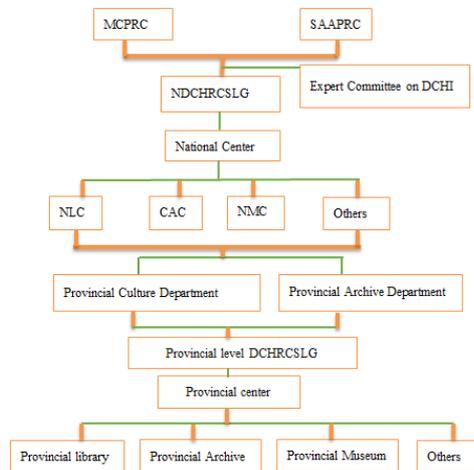

Fig.2. The China's Digital Cultural Heritage Integration Management System.

Notes: NLC is the abbreviation of National Library of China; CAC is the abb. of Central Archive of China; NMC is the abb. of National Museum of China

In China, MCPRC is the highest administration body of the national cultural sector which manages public library and museum in the country. SAAPRC is the highest

administration body of the archival undertaking which manages archive of China. But there is little cooperation between them (Tang, 2016).If this situation continues, it is impossible for China to build a platform that integrates DCH from LAMs and other cultural institutions. So in Fig. 2, we propose that different levels of DCHRCSLG should be set up, so cooperation mechanism between MCPRC and SAAPRC can be established.

This poster found that the public has great demand on one-stop access to DCH from LAMs and other cultural institutions and presents a national-scale platform model which integrates DCH from LAMs and other cultural institutions in China. The China's DCHI management system is proposed to build a DCHI platform under the cooperation between MCPRC and SAAPRC.

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